Frankston Vegetation Study 2006

Project 05-5 Planning Review

Prepared for: Frankston City Council

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Summary

This report presents the findings of a Vegetation Study of the City of Frankston. This study is intended to provide an inventory of existing remnants[1] , delineating their boundaries, determining the vegetation types and the range of vegetation quality.

The Conservation Significance determined for each Vegetation type in each site will allow refinement of the planning process and the delineation of Environmental Significance Overlays (ESOs).

The sites were reviewed on the basis of air photo interpretation, Department of Sustainability and Environment (DSE) modelling of Ecological Vegetation Classes (EVCs), field surveys and interrogation of biological data bases.

The total number of sites included in the current study is 108. The review of the original 129 sites described in our previous study (Muir et al. 1997) was augmented with another 10 sites by request from Frankston City Council and another 7 sites identified in the current study. Eleven of the original sites were not assessed (generally due to clearing or low species diversity) and 52 sites were amalgamated into 21.

The sites are diverse in terms of vegetation types and quality (or condition). This reflects the variations in geology and soils, land use and weed invasions. The sites are generally more than 0.5 hectares (as defined in our methodology), with only 15 sites of less than a hectare and ten of more than forty hectares, but most range from two to twenty hectares.

Typically, for urban and semi-rural landscapes, the degradation of vegetation was more marked in smaller and more linear remnants. The condition of vegetation in some of the larger sites was of remarkably high quality. This is also a function of soil types, as deep sandy soils are not favourable environments for many weed species.

The municipality seems to be fortunate in the active interest of a large number of 'Friends of' groups, and the skills of bushland officers who are working to maintain and enhance a number of public reserves. Their on-going works will be required to prevent further degradation of sites.

[1] a remnant is defined as a patch of vegetation which adequately represents an Ecological Vegetation Class in terms of its range of life forms, above a specified threshold of diversity.

1 Introduction

Ecology Australia was commissioned by Frankston City Council to undertake a study of the Vegetation of the Frankston City Municipality.

The main objectives of this study are:

- To develop a current vegetation inventory that will provide detailed information about ecological communities found in the municipality, including their relative condition and significance;
- To review and incorporate the current legislation that pertains to the management of native vegetation in Frankston City, to be used in assessing and managing public and private land, particularly in regard to improving relevant provisions in the Frankston Planning Scheme;
- To review and incorporate the current legislation pertaining to the management of native vegetation, to ensure that Council is within the guidelines of *Victoria's Native Vegetation Management - A Framework for Action*.

Our previous study of the vegetation of the municipality (Muir et al. 1997) provided a starting point for the current study, in terms of defining most sites supporting vegetation remnants of reasonable quality, and an indication of the range of vegetation types present. Additional sites were included in the current study based on Council request and our own determinations.

The majority of information collected during the study is presented in GIS format in the form of maps and an integrated Excel database sheet.

The Conservation Significance determined for the EVCs at each site will allow refinement of delineation of ESOs and the identification of suitable locations in the municipality for vegetation management offsets.

2 Study Area

The study area is the Frankston City municipality covering around 130 km^2 in the south-east of Greater Melbourne. It extends from Eel Race Road in the north of Seaford, west along Thompson Road to Skye. The eastern boundary is formed by Dandenong – Hastings Road to Baxter - Tooradin Road in Langwarrin South. Baxter - Tooradin Road forms the southern boundary through Frankston South to Humphries Road and out to the coast which defines the western boundary. Langwarrin, Frankston, Frankston North, Seaford, Skye and Carrum Downs are all included in the municipality.

Frankston City supports significant natural features of importance for flora and fauna conservation and amenity alongside an important centre of business and industry, residence, recreation and tourism.

The natural environments in Frankston City are predominantly coastal and near-coastal, and of low relief, punctuated by gently sloping escarpments and incised creek lines.

A coastal dune system of Quaternary siliceous and calcareous sands is well developed between Frankston and Seaford. Kananook Creek runs over six kilometres between dunes, exiting at Frankston Pier. Behind this, more recent swamp deposits are typified by Seaford Wetlands (and Carrum Swamp) (Bird 1993). Older Quaternary sand sheets of marine origin extend west and south across a large proportion of the study area.

The north-west of the study area, forming the southern part of the former Carrum Carrum Swamp, is characterised by a large, flat plain of Quaternary peat and clay deposits; these grade into Tertiary Baxter Sandstone, the dominant geology in the east and far south of the study area (Geological Survey of Victoria 1967).

Silurian sandstone occupies extensive areas in the south-east of the municipality, in Langwarrin and Skye (Geological Survey of Victoria 1967). Volcanic geologies are more rarely represented; Devonian granite occurs along Sweetwater Creek to Olivers Hill forming coastal cliffs and Tertiary Basalt outcrops in the north-east of the sudy area, especially around the intersection of Dandenong-Hastings Road. Ordovician sandstone is represented by a relatively small band in the south-west of the municipality.

The broader area receives an average of 737 mm rainfall per year (recorded at Mornington over 118 years to 2004). This is relatively evenly distributed throughout the year with May to October being the wettest months and January and February being the driest and hottest months (Bureau of Meteorology http://www.bom.gov.au/climate/averages/tables l).

3 Methods

3.1 Literature review

The following information was reviewed as part of the project:

- Ecological Vegetation Class (EVC) mapping (DSE 2005a);
- Frankston City Vegetation Study (Muir et al. 1997);
- Biological Significance Database (DSE 2005a);
- Flora Information System (FIS) Database (DSE 2005);
- DSE threatened species list (DSE 2005b);
- EBPC Protected Matters Search Tool (DEH 2004).

These data were supplemented by information from the following sources:

- Seaford Wetlands (Australian Ecosystems 2005)
- Department of Primary Industries - Frankston (Faithfull 2005)
- Langwarrin Flora and Fauna Reserve Vascular Plant Species Lists (L. Costermans unpublished data; D. Cheal et al. 1995);
- The Pines Flora and Reserve Draft Management Plan (1993);
- Frankston Coastline Management Study (Ecology Australia 1993);
- Vascular Flora of the Pines Management Area (Flora and Fauna Survey and Management Group, Dept. Conservation Forests and Lands, November 1989);
- Peninsula Perspectives (Calder 1986);
- Studio Park Management Plan (Frankston City Council 1997);
- Seaford Foreshore Reserve Management Plan (Walker et al. 1993);
- Natural Reserves in Frankston (Brunner and Courtney 1996); and
- Kananook Creek and Long Island studies (Wilson et al. 2005; Frankston City Council 1992).

3.2 GIS

Frankston City Council provided a CD with aerial photography supplemented by cadastral data, both in MapInfo.tab format (Frankston City Council 2005). This was used to map all remnant vegetation sites for field checking, including all sites identified in our previous study.

A vegetation remnant was defined as a stand of indigenous vegetation of 0.5 hectares or greater and displaying remnant structural and/or floristic characters representative of an Ecological Vegetation Class (ie. consisting of more than just scattered indigenous trees or other single species and / or the understorey having greater than 10% of the total cover specified for the relevant benchmark).

Additional reserves and remnants to visit were identified by Mark Doyle of Frankston City Council and from site inspections.

The boundaries of all sites meeting the above criteria were mapped digitally onto the relevant portions of the State Digital Map Base using pcArcView at a scale of 1:5 000.

Additional data may need to be added to the database as site access is granted in the future, or with refinement of EVC descriptions by DSE. Benchmarks for assessment of Wetland EVCs in particular were being produced at the time of writing.

3.3 Taxonomy

Plant taxonomy follows DSE (2004 b), Ross and Walsh (2003) and Walsh and Entwisle (1994, 1996).

Note that: *Acacia longifolia s.l.* – refers to *Acaca longifolia* ssp. *longifolia* and *A. longifolia* ssp. *sophorae* which intergrade and are often difficult to distinguish. *A. longifolia* ssp. *sophorae* is more common on the coastal dunes, whereas the shrub invading inland woodland remnants is usually identifiable as *A. longifolia* ssp. *longifolia.* All references to Coast Wattle records are to *Acacia longifolia s.l.*

3.4 Field surveys

The study sites were inspected between May and December, 2005 and from January to March, 2006. Notes were made on the flora values for each site, including:

- Ecological Vegetation Classes (EVCs) present;
- General condition of the vegetation;
- Identification of major degrading factors.

The vegetation assessment for a site is based on benchmarks for each EVC recorded (e.g. Appendix 1, or see DSE website [2]) and focuses on the extent of native vegetation cover, composition, structure and other features important in determining vegetation (or habitat) quality such as the presence or absence of old or hollow-bearing trees, a diverse understorey, the level of disturbance (e.g. weed invasion), and ground layer characteristics, including leaf litter, logs, and fallen branches. Also important are the size and shape of a remnant and its connectivity to other vegetation.

Vegetation condition assessment (Net Gain Habitat scores) were undertaken for the dominant EVC(s) of each site. In patches where the quality of vegetation varied, the range of scores was estimated (to the nearest 5%). This information was compiled using a pro-forma sheet (Appendix 2).

All data collated was entered into an Excel database sheet which was integrated into the GIS. This has been made available to Frankston City Council to provided detailed information on each of 108 remnant sites. This information is summarised in Appendix 4 of this document.

[2] http://www.dse.vic.gov.au/dse/nrence.nsf/LinkView/43FE7DF24A1447D9CA256EE6007EA8788062D358172E420C4A256DEA0012F71C

Most sites were inspected on foot to determine the variations in vegetation type and quality, however access to privately-owned sites was not always permitted and inspection from the roadside was employed where possible to complement aerial photo predictions and DSE modelling. Geological data and surrounding vegetation contributed to the prediction of EVC and quality.

Note that mapping of site and EVC boundaries utilised aerial photography where ground checking was not possible (particularly for larger sites) and often defaulted to cadastral boundaries for practicability.

Compilation of detailed species lists was beyond the scope of the study, although plant lists, particularly for rare and threatened species that were available in published reports or provided to the authors by other botanists assisted in determining the overall significance of sites in some cases.

3.4.1 Conservation Status and Significance of EVCs

We have generally followed the DSE assessments of Conservation Status for each EVC. However, we suggest that for a number of Floristic Vegetation Groups within EVCs, if not the EVCs themselves, the Conservation Status should probably be increased.

Heathy Woodland EVC is currently considered to be 'Least Concern' in the Gippsland Plain Bioregion, but it is depleted in its extent due primarily to clearing and weed invasion. It also has affinities (in distribution and species composition) with the EPBC-listed Sand Heathland EVC.

The Coastal Dune Grassland and Scrub EVCs are also listed as 'Least Concern' (Coastal Dune Grassland and Coastal Dune Scrub) or Depleted (Coastal Headland Scrub). These are subject to a range of disturbances from eroding forces (sea and wind) and user-pressures (beach visitors) and their survival is crucial to maintaining dune stability.

We have revised the levels of Conservation Status of these EVCs for the purposes of this report, as follows:

EVC	DSE Conservation Status	Recommended Change
Coastal Dune Grassland	Least Concern	Endangered
Coastal Headland Scrub	Depleted	Vulnerable
Coastal Dune Scrub	Least Concern	Vulnerable
Heathy Woodland	Least Concern	Depleted

The evidence for these elevations of threatened status needs to be compiled. Frankston City Council may like to make recommendations to DSE, and contribute to future revisions of Conservation Status in relation to these EVCs.

The Conservation Significance of each EVC was determined by combining the Condition Score with the Status of each EVC (as outlined in Table 5 of the Framework (DSE 2002). For example, a remnant of Sand Heathland (Rare Conservation Status) with a Condition Score between 0.3 and 0.6 is High. For sites with more than one EVC the most Significant was used to summarise the site significance.

4 Vegetation

4.1 Ecological Vegetation Classes

The size of the municipality and the range of geologies and local environments engender a great variation in vegetation types and their condition (see Figure 1).

The types of disturbance are more constant, particulary in areas surrounded by urban development where the accompanying visitor pressures (walking, horse and bike riding, dog and cat presence) and garden plantings provide a range of degrading processes including erosion, weed invasion, decline in species-richness and abundance, introduced fauna and out-of-balance indigenous fauna (e.g. Noisy and Bell Miners). Amenity and user demands can also dictate clearing, mowing and slashing of sections of public reserves. Ultimately, for many sites, particularly smaller sites, the understorey depletion can result in 'tree-only' remnants, with limited conservation and habitat values.

The Ecological Vegetation Classes (EVCs) identified in sites in Frankston City are grouped below according to broad environmental settings, (and are described in this order):

Foredune and coastal environment vegetation:

- Coastal Dune Grassland;
- Coastal Dune Scrub;
- Coastal Headland Scrub;
- Coast Banksia Woodland.

Deep, sandy soil environments:

- Sand Heathland;
- Heathy Woodland;
- Damp Sands Herb-rich Woodland;
- Damp Heathland;
- Damp Heathy Woodland.

Riparian and other moist environments:

- Riparian Scrub;
- Swamp Scrub;
- Swampy Riparian Woodland;
- Gully Woodland;
- Shrubby Gully Forest.

Soils with more impeded drainage:

- Grassy Woodland;
- Valley Heathy Forest;
- Plains Grassy Woodland;
- Swampy Woodland; and

A range of wetland communities, including:

- Plains Grassy Wetland;
- Tall Marsh;
- Aquatic Herbland;
- Brackish Aquatic Herbland; and
- Brackish Wetland.

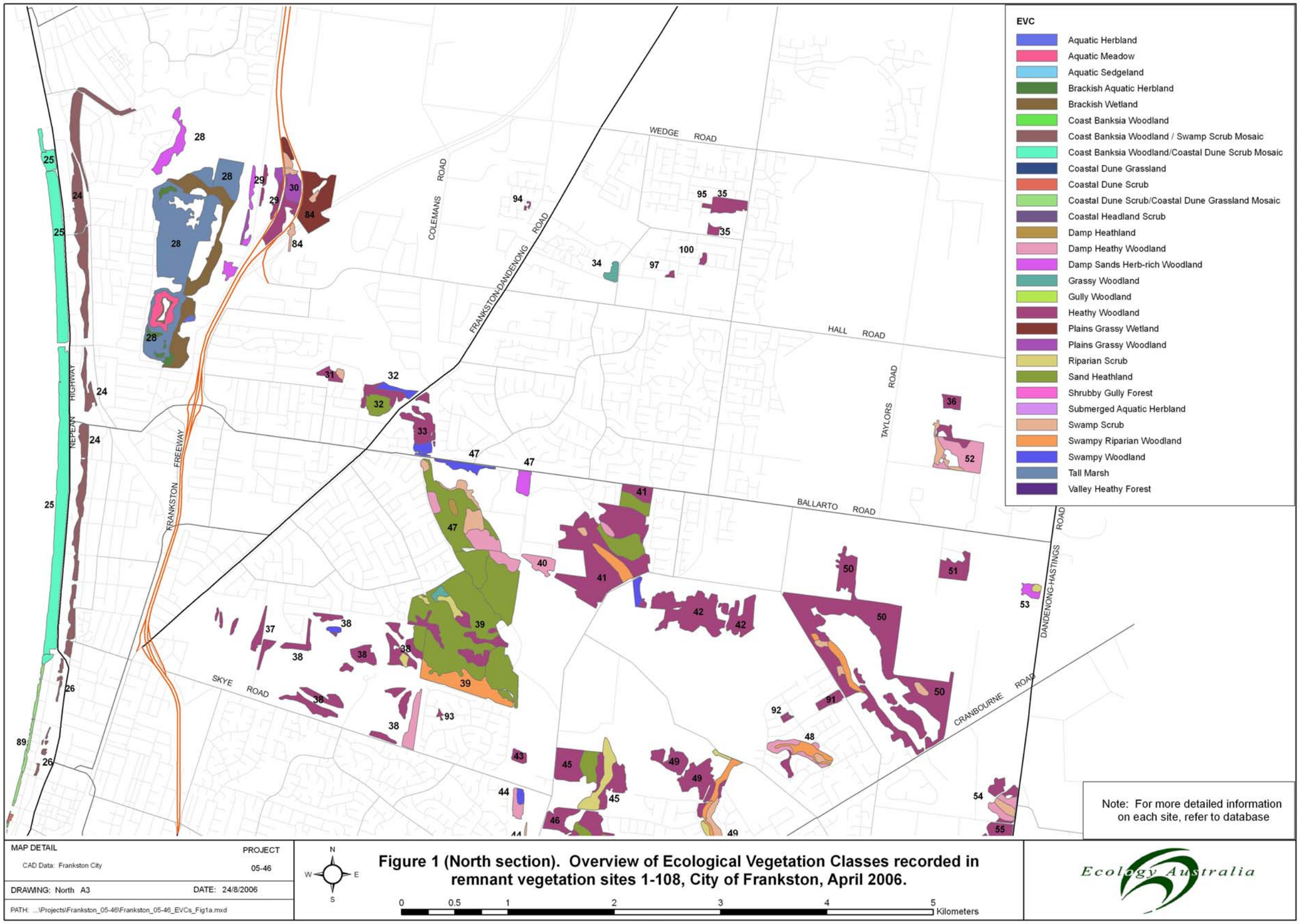

Figure 1 (North section). Overview of Ecological Vegetation Classes recorded in remnant vegetation sites 1-108, City of Frankston, April 2006.

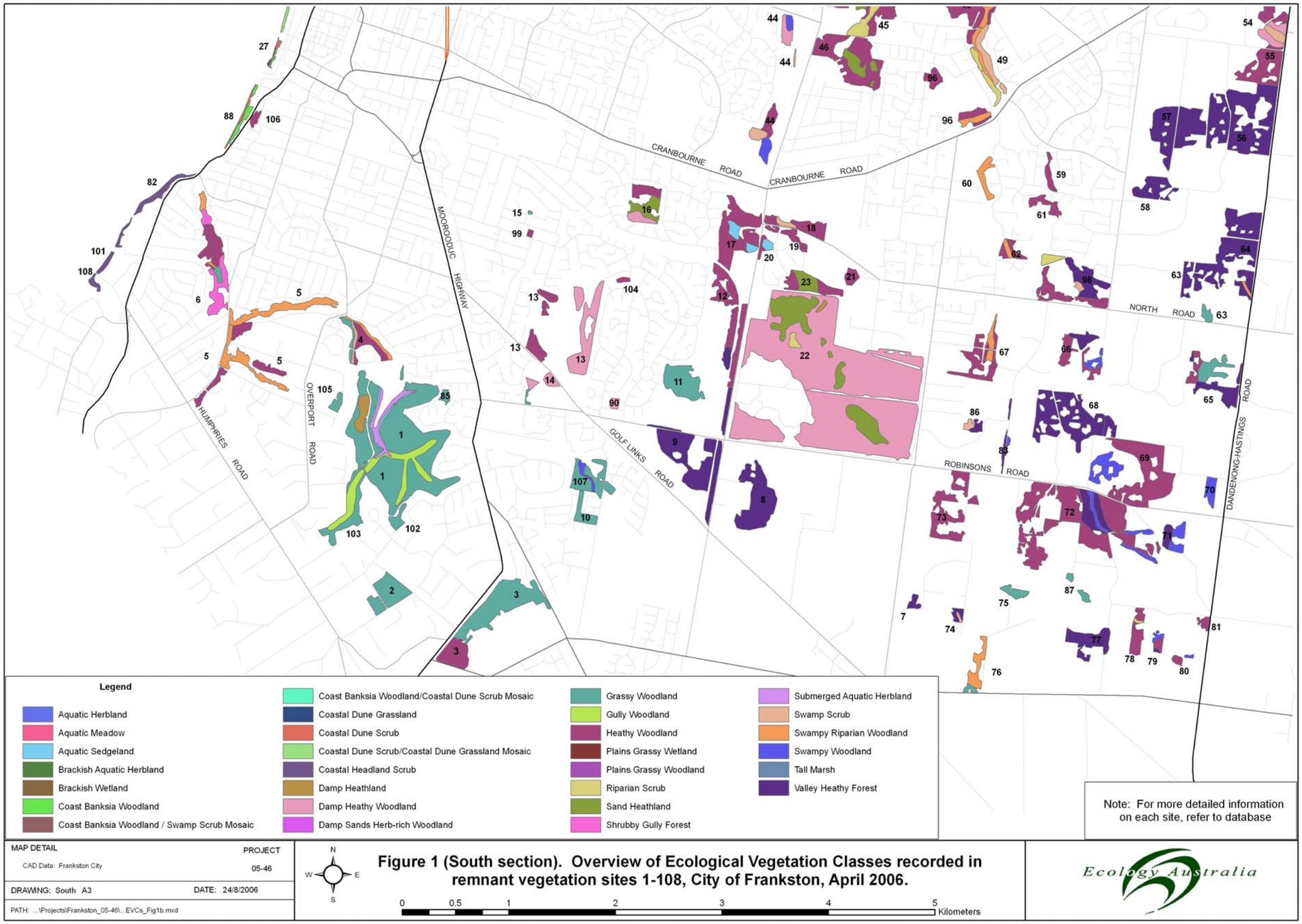

Figure 1 (South section). Overview of Ecological Vegetation Classes recorded in remnant vegetation sites 1-108, City of Frankston, April 2006.

Based on the rarity, levels of depletion, degradation and current threats, DSE (website [3]) have applied the following conservation status to the 23 EVCs recognised for the Frankston municipality. We have increased the Conservation Status of four EVCs, as outlined in Section 3.4.1, above.

EVC		Conservation Status
879	Coastal Dune Grassland	Endangered
160	Coastal Dune Scrub	Vulnerable
161	Coastal Headland Scrub	Vulnerable
2	Coast Banksia Woodland	Vulnerable
6	Sand Heathland	Rare
48	Heathy Woodland	Depleted
3	Damp Sands Herb-rich Woodland	Vulnerable
710	Damp Heathland	Rare
793	Damp Heathy Woodland	Vulnerable
191	Riparian Scrub	Vulnerable
53-61	Swamp Scrub	Endangered
83	Swampy Riparian Woodland	Endangered
902	Gully Woodland	Endangered
938	Shrubby Gully Forest	Vulnerable
175	Grassy Woodland	Endangered
127	Valley Heathy Forest	Endangered
55	Plains Grassy Woodland	Endangered
937	Swampy Woodland	Endangered
125	Plains Grassy Wetland	Endangered
821	Tall Marsh	Endangered
653	Aquatic Herbland	Endangered
537	Brackish Aquatic Herbland	Vulnerable
656	Brackish Wetland	Rare

Three EVC complexes are also mapped, where the EVCs are consistently intermingled and difficult to separate at the scale of mapping:

EVC 1:	Coastal Dune Scrub / Coastal Dune Grassland Mosaic	Endangered
EVC 904:	Coast Banksia Woodland / Swamp Scrub Mosaic	Endangered
EVC 921:	Coastal Dune Scrub / Coast Banksia Woodland Mosaic	Vulnerable

These coexist over long, narrow areas, e.g. Seaford coastline and Kananook Creek. At the time of writing, DSE are revising the Victorian wetland typology and assessment benchmarks. Not assessed, but present in very small remnants, are the EVCs 308 Aquatic Sedgeland and 842 Saline Aquatic Meadow.

The EVCs are described below according to attributes such as indigenous species, vegetation structure, and environmental parameters, e.g. soil type and topography. The descriptions are based on the previous study (Muir et al. 1997), EVC benchmarks for Gippsland Plain Bioregion and our field studies.

[3] http://www.dpi.vic.gov.au/dse/nrence.nsf

4.2 EVC Descriptions

EVC 879: Coastal Dune Grassland

Conservation Status: Endangered

Typical Indigenous Species		
Species	**Common Name**	**Indicative Abundance** [+]
Herbs and graminoids		
Ficinia nodosa	Knobby Club-sedge	2
Lepidosperma gladiatum	Coast Sword-sedge	2
Spinifex sericeus	Hairy Spinifex	3
Carpobrotus rossii	Karkalla	2
Scramblers / Climbers		
Clematis microphylla	Small-leaved Clematis	2

STRUCTURE: Open grassland to sedgeland.

DISTRIBUTION / ENVIRONMENT: Calcareous and siliceous dunes of Quaternary origin. Soils are deep uniform sandy loams. Common in northern and central Frankston, west of Nepean Highway (Seaford Foreshore Reserve).

Commonly invaded by **Ammophila arenaria* Marram Grass.

[+] Indicative Abundance incorporates data from across the municipality and uses 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
- 5 cover 75-100%, any number of individuals

EVC 160: Coastal Dune Scrub

Conservation Status: Vulnerable

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Shrubs		
Leptospermum laevigatum	Coast Tea-tree	4
Acacia longifolia ssp. *sophorae*	Coast Wattle	3
Leucopogon parviflorus	Coast Beard-heath	2
Alyxia buxifolia	Sea Box	1
Correa alba	White Correa	1
Ozothamnus turbinatus	Coast Everlasting	1
Leucophyta brownii	Cushion Bush	1
Myoporum insulare	Common Boobialla	1
Olearia axillaris	Coast Daisy-bush	1
Pomaderris paniculosa ssp. *paralia*	Coast Pomaderris	1
Rhagodia candolleana	Seaberry Saltbush	1
Herbs and graminoids		
Ficinia nodosa	Knobby Club-sedge	2
Lepidosperma gladiatum	Coast Sword-sedge	1
Lomandra longifolia	Spiny-headed Mat-rush	1
Scramblers / Climbers		
Tetragonia implexicoma	Bower Spinach	1

STRUCTURE: Scrub - shrubland

DISTRIBUTION / ENVIRONMENT: Calcareous and siliceous fore-dunes of Quaternary origin. Soils are deep uniform sands or sandy loams.
Common in northern and central Frankston, west of Nepean Highway (Seaford Foreshore Reserve).

Threatened by a range of factors including user-pressure and erosion.

EVC 161: Coastal Headland Scrub

Conservation Status: At least 'Vulnerable'

Typical Indigenous Species		
Species	**Common Name**	**Indicative Abundance**
Shrubs		
Leptospermum laevigatum	Coast Tea-tree	3
Acacia longifolia ssp. *sophorae*	Coast Wattle	3
Leucopogon parviflorus	Coast Beard-heath	3
Leucophyta brownii	Cushion Bush	2
Rhagodia candolleana	Seaberry Saltbush	2
Herbs and graminoids		
Ficinia nodosa	Knobby Club-sedge	2
Disphyma crassifolium ssp. *clavellatum*	Rounded Noon-flower	2
Scramblers / Climbers		
Tetragonia implexicoma	Bower Spinach	2

STRUCTURE: Low shrubland or scrub.

DISTRIBUTION / ENVIRONMENT: Rocky coastal headlands, eroding rocky cliffs, typically Baxter Sandstone. Shallow sandy soils. Restricted in Frankston to cliffs on and south of Olivers Hill.

EVC 2: Coast Banksia Woodland

Conservation Status: Vulnerable

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Banksia integrifolia	Coast Banksia	3
Allocasuarina verticillata	Drooping Sheoke	2
Shrubs		
Leptospermum laevigatum	Coast Tea-tree	2
Acacia longifolia ssp. *sophorae*	Coast Wattle	2
Leucopogon parviflorus	Coast Beard-heath	2
Correa alba	White Correa	1
Rhagodia candolleana	Seaberry Saltbush	1
Herbs and graminoids		
Dichondra repens	Kidney Weed	2
Ficinia nodosa	Knobby Club-sedge	1
Lomandra longifolia	Spiny-headed Mat-rush	1
Scramblers / Climbers		
Tetragonia implexicoma	Bower Spinach	2
Clematis microphylla	Small-leaved Clematis	2
Ferns		
Pteridium esculentum	Austral Bracken	2

STRUCTURE: Open woodland.

DISTRIBUTION / ENVIRONMENT: Calcareous and siliceous sands of Quaternary origin. Soils are deep uniform sandy loams. Represented in Frankston by near-coastal linear remnants, particularly towards the north (eg. Kananook Creek).

EVC 6: Sand Heathland

Conservation Status: Rare

Typical Indigenous Species		
Species	**Common Name**	**Indicative Abundance**
Trees		
Eucalyptus viminalis ssp. *pryoriana*	Coast Manna Gum	2
Shrubs		
Leptospermum myrsinoides	Silky Tea-tree	4
Allocasuarina paradoxa	Green Sheoak	3
Leptospermum continentale s.l.	Prickly Tea-tree	2
Acacia oxycedrus	Spike Wattle	1
Aotus ericoides	Common Aotus	1
Bossiaea cinerea	Wiry Bossiaea	1
Banksia marginata	Silver Banksia	1
Dillwynia glaberrima	Smooth Parrot-pea	1
Epacris impressa	Common Heath	1
Hibbertia sericea	Silky Guinea-flower	1
Monotoca scoparia	Prickly Broom-heath	1
Herbs and graminoids		
Lepidosperma concavum	Sand-hill Sword-sedge	2
Amperea xiphoclada var. *xiphoclada*	Broom Spurge	1
Acrotriche serrulata	Honey-pots	1
Gahnia radula	Thatch Saw-sedge	1
Gonocarpus tetragynus	Common Raspwort	1
Xanthorrhoea minor ssp. *lutea*	Small Grass-tree	1
Ferns		
Pteridium esculentum	Austral Bracken	1

STRUCTURE: Closed heathland with occasional emergent eucalypts.

DISTRIBUTION / ENVIRONMENT: Undulating dunes and swales on moderately well drained sandy loams of low fertility derived from Quaternary sands. Scattered through centre of Municipality, well represented in Langwarrin Flora and Fauna Reserve and The Pines Flora and Fauna Reserve.

EVC 48: Heathy Woodland

Conservation Status: Depleted

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus viminalis ssp. *pryoriana*	Coast Manna Gum	3
Eucalyptus radiata	Small-leaved Peppermint	2
Eucalyptus cephalocarpa	Silver-leaf Stringybark	2
Shrubs		
Leptospermum continentale s.l.	Prickly Tea-tree	2
Leptospermum myrsinoides	Silky Tea-tree	2
Bossiaea cinerea	Wiry Bossiaea	1
Banksia marginata	Silver Banksia	1
Epacris impressa	Common Heath	1
Hibbertia sericea	Silky Guinea-flower	1
Ricinocarpos pinifolius	Wedding Bush	1
Herbs and graminoids		
Gahnia radula	Thatch Saw-sedge	2
Lepidosperma concavum	Sand-hill Sword-sedge	1
Lomandra longifolia	Spiny-headed Mat-rush	1
Acrotriche serrulata	Honey-pots	1
Amperea xiphoclada	Broom Spurge	1
Gonocarpus tetragynus	Common Raspwort	1
Xanthorrhoea minor ssp. *lutea*	Small Grass-tree	1
Ferns		
Pteridium esculentum	Austral Bracken	3

STRUCTURE: Open woodland.

DISTRIBUTION / ENVIRONMENT: Mostly well-drained sandy loams or sandy clay loams derived from Quaternary sands, Devonian granite and various sedimentary geologies. Widespread throughout Frankston although depleted and poorly reserved in the region. Some good examples in Langwarrin Flora and Fauna Reserve, The Pines Flora and Fauna Reserve.

EVC 3: Damp Sands Herb-rich Woodland

Conservation Status: Vulnerable

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus viminalis ssp. *pryoriana*	Coast Manna Gum	4
Shrubs		
Leptospermum continentale s.l.	Prickly Tea-tree	2
Leptospermum myrsinoides	Silky Tea-tree	2
Bossiaea cinerea	Wiry Bossiaea	2
Banksia marginata	Silver Banksia	2
Epacris impressa	Common Heath	1
Astroloma humifusum	Cranberry Heath	1
Herbs and graminoids		
Dianella admixta	Black-anther Flax-lily	2
Lepidosperma concavum	Sand-hill Sword-sedge	2
Microlaena stipoides var. stipoides	Weeping Grass	2
Poranthera microphylla	Small Poranthera	1
Acrotriche serrulata	Honey-pots	1
Opercularia varia	Stinking Pennywort	1
Gonocarpus tetragynus	Common Raspwort	1
Ferns		
Pteridium esculentum	Austral Bracken	2

STRUCTURE: Open woodland.

DISTRIBUTION / ENVIRONMENT: Subdued dunes and moderately fertile, moderately well-drained sandy loams. Fairly restricted in the study area. A few small occurrences in the north and north-east of the municipality.

EVC 710: Damp Heathland

Conservation Status: Rare

Typical Indigenous Species		
Species	**Common Name**	**Indicative Abundance**
Shrubs		
Leptospermum continentale s.l.	Prickly Tea-tree	3
Allocasuarina paludosa	Scrub Sheoak	3
Banksia marginata	Silver Banksia	2
Hibbertia sericea	Silky Guinea-flower	2
Herbs and graminoids		
Selaginella uliginosa	Swamp Selaginella	2
Xanthorrhoea minor ssp. *lutea*	Small Grass-tree	2
Acrotriche serrulata	Honey-pots	1
Gonocarpus tetragynus	Common Raspwort	1

STRUCTURE: Closed tall heathland – closed scrub.

DISTRIBUTION / ENVIRONMENT: Impeded drainage swales on sandy duplex soils.

EVC 793: Damp Heathy Woodland

Conservation Status: Vulnerable

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus cephalocarpa	Silver-leaf Stringybark	3
Eucalyptus radiata	Small-leaved Peppermint	2
Eucalyptus ovata	Swamp Gum	2
Shrubs		
Leptospermum continentale s.l.	Prickly Tea-tree	2
Ozothamnus ferrugineus	Tree Everlasting	2
Kunzea ericoides	Burgan	2
Banksia marginata	Silver Banksia	2
Epacris impressa	Common Heath	1
Hibbertia riparia	Erect Guinea-flower	1
Herbs and graminoids		
Lepidosperma filiforme	Common Rapier Sword-sedge	2
Themeda triandra	Kangaroo Grass	2
Xanthorrhoea minor ssp. *lutea*	Small Grass-tree	2
Acrotriche serrulata	Honey-pots	1
Gonocarpus tetragynus	Common Raspwort	1
Ferns		
Pteridium esculentum	Austral Bracken	3

STRUCTURE: Open woodland to closed heath.

DISTRIBUTION / ENVIRONMENT: Gently undulating to flat areas on poorly drained sandy loams of Tertiary or Ordovician origin. Scattered across the study area with occurrences recorded at Bunarong Reserve, Frankston Golf Club, Langwarrin Flora and Fauna Reserve and the Pines Flora and Fauna Reserve.

EVC 191: Riparian Scrub

Conservation Status: Vulnerable

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus ovata	Swamp Gum	1
Shrubs		
Melaleuca squarrosa	Scented Paperbark	4
Herbs and graminoids		
Baumea tetragona	Square Twig-sedge	2
Gahnia sieberiana	Red-fruit Saw-sedge	2
Lepidosperma longitudinale	Pithy Sword-sedge	2
Empodisma minus	Spreading Rope-rush	2
Ferns		
Gleichenia microphylla	Scrambling Coral-fern	1
Calochlaena dubia	Common Ground-fern	1

STRUCTURE: Tall closed scrub.

DISTRIBUTION / ENVIRONMENT: Seasonally inundated sites with prolonged waterlogging, generally associated with drainage swales or swampy depressions. Substrates are generally of low fertility. Scattered throughout Frankston, Langwarrin and Skye, with representative examples in Langwarrin Flora and Fauna Reserve, The Pines Flora and Fauna Reserve and Boggy Creek.

EVC 53-61: Swamp Scrub

Conservation Status: Vulnerable

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus ovata	Swamp Gum	1
Shrubs		
Melaleuca ericifolia	Swamp Paperbark	4
Leptospermum continentale s.l.	Prickly Tea-tree	2
Acacia verticillata var. verticillata	Prickly Moses	1
Leptospermum lanigerum	Woolly Tea-tree	1
Herbs and graminoids		
Carex appressa	Tall Sedge	2
Carex fascicularis	Tassel Sedge	2
Crassula helmsii	Swamp Crassula	2
Eleocharis acuta	Common Spike-sedge	2
Gahnia sieberiana	Red-fruit Saw-sedge	2
Phragmites australis	Common Reed	1

STRUCTURE: Tall closed scrub.

DISTRIBUTION / ENVIRONMENT: Seasonally inundated sites with prolonged waterlogging, generally associated with stream terraces or swampy depressions. Substrates are mostly derived from Quaternary alluvium and are moderately fertile. Small remnants scattered throughout Frankston.

EVC 83: Swampy Riparian Woodland

Conservation Status: Endangered

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus ovata	Swamp Gum	3
Acacia melanoxylon	Blackwood	2
Eucalyptus radiata	Narrow-leaf Peppermint	2
Shrubs		
Leptospermum continentale	Prickly Tea-tree	2
Bursaria spinosa	Sweet Bursaria	2
Coprosma quadrifida	Prickly Currant-bush	2
Melaleuca ericifolia	Swamp Paperbark	2
Ozothamnus ferrugineus	Tree Everlasting	2
Acacia verticillata var. *verticillata*	Prickly Moses	2
Herbs and graminoids		
Gahnia radula	Thatch Saw-sedge	2
Lepidosperma laterale var. *majus*	Variable Sword-sedge	2
Poa labillardieri	Common Saw-sedge	2
Dianella tasmanica	Tasman Flax-lily	1
Lomandra longifolia	Spiny-headed Mat-rush	1
Ferns		
Pteridium esculentum	Austral Bracken	2

STRUCTURE: Open woodland to closed scrub.

DISTRIBUTION / ENVIRONMENT: Seasonally waterlogged lowland drainage lines and depressions, infrequently flooded. Soils are variable but are mostly derived from Quaternary alluvium or colluvial material from sedimentary geologies. Scattered throughout the south of the Municipality.

EVC 902: Gully Woodland

Conservation Status: Endangered

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus ovata	Swamp Gum	2
Acacia mearnsii	Black Wattle	2
Acacia melanoxylon	Blackwood	2
Eucalyptus radiata	Narrow-leaf Peppermint	2
Allocasuarina littoralis	Black Sheoak	1
Shrubs		
Melaleuca ericifolia	Swamp Paperbark	2
Ozothamnus ferrugineus	Tree Everlasting	2
Coprosma quadrifida	Prickly Currant-bush	2
Rubus parvifolius	Small-leaf Bramble	2
Acacia verticillata var. verticillata	Prickly Moses	1
Herbs and graminoids		
Gahnia radula	Thatch Saw-sedge	2
Lepidosperma laterale var. laterale	Variable Sword-sedge	2
Poa labillardieri	Common Saw-sedge	2
Microlaena stipoides var. stipoides	Weeping Grass	2
Dianella tasmanica	Tasman Flax-lily	1
Lomandra longifolia	Spiny-headed Mat-rush	1
Climbers		
Pandorea pandorana	Wonga Vine	2
Ferns		
Pteridium esculentum	Austral Bracken	2
Adiantum aethiopicum	Common Maidenhair	2

STRUCTURE: Woodland with sedge and grass dominated understorey.

DISTRIBUTION / ENVIRONMENT: Well-drained silty sands from Sedimentary geology. Found in moderately steep gullies along watercourses.

Typically invaded by a range of invasive weed species and consequently rarely present as intact remnants – typical examples in Frankston Reservoir and the nearby Overport Park.

EVC 938: Shrubby Gully Forest

Conservation Status: Vulnerable

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus ovata	Swamp Gum	3
Eucalyptus radiata	Narrow-leaf Peppermint	2
Acacia melanoxylon	Blackwood	2
Shrubs		
Leptospermum continentale	Prickly Tea-tree	2
Melaleuca ericifolia	Swamp Paperbark	2
Ozothamnus ferrugineus	Tree Everlasting	2
Coprosma quadrifida	Prickly Currant-bush	2
Goodenia ovata	Hop Goodenia	2
Herbs and graminoids		
Gahnia radula	Thatch Saw-sedge	2
Poa morrisii	Soft Tussock-grass	2
Lomandra longifolia	Spiny-headed Mat-rush	1
Ferns		
Calochlaena dubia	Common Ground-fern	2
Polystichum proliferum	Mother Shield-fern	2

STRUCTURE: Woodland with moderately to very dense shrub layer.

DISTRIBUTION / ENVIRONMENT: This EVC has affinities with Gully Woodland and it can be difficult to differentiate between the two when weed species are dominant (as is usually the case in the study area, with *Blackberry being a frequent dominant species). Well-drained sandy soils along minor watercourses. Low fertility relative to Gully Woodland. Recorded for Sweetwater Creek Reserve.

EVC 175: Grassy Woodland

Conservation Status: Endangered

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus cephalocarpa	Silver-leaf Stringybark	2
Eucalyptus viminalis ssp. *pryoriana*	Coast Manna Gum	2
Acacia mearnsii	Black Wattle	2
Eucalyptus ovata	Swamp Gum	2
Eucalyptus pauciflora	Snow Gum	2
Eucalyptus radiata	Narrow-leaf Peppermint	2
Allocasuarina littoralis	Black Sheoke	1
Allocasuarina verticillata	Drooping Sheoke	1
Shrubs		
Acacia paradoxa	Hedge Wattle	2
Leptospermum continentale s.l.	Prickly Tea-tree	2
Bossiaea prostrata	Creeping Bossiaea	1
Herbs and graminoids		
Themeda triandra	Kangaroo Grass	3
Austrodanthonia spp.	Wallaby-grasses	2
Lomandra longifolia	Spiny-headed Mat-rush	2
Microlaena stipoides var. *stipoides*	Weeping Grass	2
Gahnia radula	Thatch Saw-sedge	1
Lepidosperma laterale	Variable Sword-sedge	1
Xanthorrhoea minor ssp. *lutea*	Small Grass-tree	1
Ferns		
Pteridium esculentum	Austral Bracken	1

STRUCTURE: Open woodland.

DISTRIBUTION / ENVIRONMENT: Rolling and dissected hills on relatively well-drained duplex soils, predominantly derived from Baxter sandstone. Scattered through the south of Frankston, particularly in the south-west (e.g. Paratea Reserve and Frankston Reservoir).

EVC 127: Valley Heathy Forest

Conservation Status: Endangered

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus cephalocarpa	Silver-leaf Stringybark	3
Eucalyptus radiata	Narrow-leaf Peppermint	3
Eucalyptus obliqua	Messmate	2
Acacia melanoxylon	Blackwood	2
Exocarpos cupressiformis	Cherry Ballart	2
Shrubs		
Leptospermum continentale s.l.	Prickly Tea-tree	2
Acacia paradoxa	Hedge Wattle	1
Acrotriche serrulata	Honey-pots	1
Banksia marginata	Silver Banksia	1
Bossiaea prostrata	Creeping Bossiaea	1
Epacris impressa	Common Heath	1
Cassinia aculeata	Common Cassinia	1
Platylobium obtusangulum	Common Flat-pea	1
Herbs and graminoids		
Gahnia radula	Thatch Saw-sedge	3
Microlaena stipoides var. *stipoides*	Weeping Grass	2
Poa morrisii	Soft Tussock-grass	2
Themeda triandra	Kangaroo Grass	2
Dianella admixta	Black-anther Flax-lily	1
Lomandra filiformis s.l.	Wattle Mat-rush	1
Xanthorrhoea minor ssp. *lutea*	Small Grass-tree	1

STRUCTURE: Open woodland to low open forest.

DISTRIBUTION / ENVIRONMENT: Gentle slopes and rises on poorly drained sandy clay or sandy clay loams derived from Silurian sediments. Largely restricted to the south east of the study area (Langwarrin area) where common.

EVC 55: Plains Grassy Woodland

Conservation Status: Endangered

Typical Indigenous Species		
Species	**Common Name**	**Indicative Abundance**
Trees		
Eucalyptus camaldulensis	River Red Gum	2
Acacia mearnsii	Black Wattle	1
Acacia melanoxylon	Blackwood	1
Allocasuarina littoralis	Black Sheoak	1
Shrubs		
Acacia paradoxa	Hedge Wattle	1
Herbs and graminoids		
Themeda triandra	Kangaroo Grass	2
Poa labillardieri	Common Tussock-grass	2
Carex breviculmis	Short-stem Sedge	1

STRUCTURE: Open woodland.

DISTRIBUTION / ENVIRONMENT: Gently undulating plains on soils derived from Quaternary sediments. Occurs on the Frankston Freeway reserve (the most intact remnant) and margins of Seaford Wetlands in the north of the Municipality, with minor occurrences elsewhere.

EVC 937: Swampy Woodland

Conservation Status: Endangered

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Trees		
Eucalyptus ovata	Swamp Gum	2
Eucalytpus cephalocarpa	Silver-leaf Stringybark	2
Acacia melanoxylon	Blackwood	2
Eucalyptus radiata	Narrow-leaf Peppermint	2
Shrubs		
Leptospermum continentale s.l.	Prickly Tea-tree	3
Melaleuca ericifolia	Swamp Paperbark	2
Ozothamnus ferrugineus	Tree Everlasting	2
Herbs and graminoids		
Gahnia sieberiana	Red-fruit Saw-sedge	2
Carex appressa	Tall Sedge	2
Lepidosperma laterale	Variable Sword-sedge	2
Phragmites australis	Common Reed	2
Poa tenera	Slender Tussock-grass	1
Juncus holoschoenus	Joint-leaf Rush	1
Ferns		
Pteridium esculentum	Austral Bracken	2

STRUCTURE: Open woodland.

DISTRIBUTION / ENVIRONMENT: Seasonally waterlogged, poorly drained lowland sites, especially on Quaternary swamp deposits. Variously degraded remnants present throughout the municipality, particularly in Frankston and Langwarrin, e.g. Belvedere Reserve, Studio Park, DPI – Frankston.

EVC 125: Plains Grassy Wetland

Conservation Status: Endangered

Typical Indigenous Species		
Species	**Common Name**	**Indicative Abundance**
Trees		
Eucalyptus ovata	Swamp Gum	2
Eucalytpus camaldulensis	River Red Gum	2
Herbs and graminoids		
Villarsia reniformis	Running Marsh-flower	2
Myriophyllum sp.	Water Milfoil	2
Amphibromus nervosus	Common Swamp Wallaby-grass	2
Baumea arthrophylla	Fine Twig-sedge	2
Eleocharis acuta	Common Spike-sedge	2
Poa labillardieri	Common Tussock-grass	2

STRUCTURE: Herbfield to Sedgeland.

DISTRIBUTION / ENVIRONMENT: Seasonally flooded depressions. Rare in the study area and restricted to small areas in the north, e.g. Seaford Wetlands and Frankston Freeway Reserve.

EVC 821: Tall Marsh

Conservation Status: Endangered

Typical Indigenous Species		
Species	**Common Name**	**Indicative Abundance**
Herbs and Graminoids		
Phragmites australis	Common Reed	3
Schoenoplectus tabernaemontani	River Club-sedge	3
Typha spp.	Cumbungi	3
Juncus spp.	Rushes	3
Calystegia sepium	Large Bindweed	2
Myriophyllum spp.	Water-milfoil	2

STRUCTURE: Rushland or sedgeland, occasionally with scattered trees.

DISTRIBUTION / ENVIRONMENT: Permanent or semi-permanent natural or artificial waterbodies (brackish to freshwater). Substrates generally organic-rich Quaternary swamp sediments. Not common in Frankston – best examples in Seaford Wetlands.

EVC 653: Aquatic Herbland

Conservation Status: Endangered

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Herbs and Graminoids		
Myriophyllum simulans	Amphibious Water-milfoil	3
Eleocharis sphacelata	Tall Spike-sedge	3
Triglochin procerum s.l.	Broad-leaf Water-ribbons	2
Phragmites australis	Common Reed	2
Baumea arthrophylla	Fine Twig-sedge	2
Villarsia reniformis	Running Marsh-flower	2
Typha orientalis	Cumbungi	2
Potamogeton spp.	Pondweed	2
Juncus spp.	Rushes	2

STRUCTURE: Herbland to Sedgeland.

DISTRIBUTION / ENVIRONMENT: Submerged and emergent aquatic and amphibious herbfield. Permanent or semi-permanent natural or artificial waterbodies. Substrates generally organic rich Quaternary swamp sediments. Not common in Frankston – best examples in Seaford Wetlands.

EVC 537: Brackish Aquatic Herbland

Conservation Status: Vunerable

Typical Indigenous Species		
Species	**Common Name**	**Indicative Abundance**
Herbs and Graminoids		
Myriophyllum spp.	Water-milfoil	3
Triglochin procerum	Water Ribbons	3
Potamogeton spp.	Pondweed	3
Ruppia polycarpa	Many-fruit Tassel	2
Lilaeopsis polyantha	Australian Lilaeopsis	2
Bolboschoenus caldwellii	Salt Club-sedge	2
Lepilaena spp.	Water-mat	2

STRUCTURE: Herbfield with some taller emergents.

DISTRIBUTION / ENVIRONMENT: Permanent or semi-permanent brackish, natural or artificial waterbodies. Substrates generally organic-rich Quaternary swamp sediments. Rare in study area, best represented in Seaford Wetlands.

EVC 656: Brackish Wetland

Conservation Status: Rare

Typical Indigenous Species

Species	Common Name	Indicative Abundance
Herbs and Graminoids		
Bolboschoenus caldwellii	Salt Club-sedge	3
Juncus kraussii	Sea Rush	3
Eleocharis acuta	Common Spike-sedge	2
Selliera radicans	Shiny Swamp-mat	2
Samolus repens	Creeping Brookweed	2
Triglochin striatum	Streaked Arrow-grass	2
Distichlis distichophylla	Australian Salt-grass	2
Baumea spp.	Twig-sedges	2

STRUCTURE: Sedgeland or herbfield.

DISTRIBUTION / ENVIRONMENT: More saline than Brackish Aquatic Herbland. Occurs on poorly drained substrates with coastal influence as found on Quaternary Swamp sediments in the study area at Seaford Wetlands.

4.3 Significance of vegetation

It should be noted that all remnant indigenous vegetation and populations of indigenous plant species in the study area have at least local conservation significance given the considerable depletion and conservation status of most vegetation types in the municipality and the Gippsland Plain Bioregion.

The Conservation Status of EVCs was outlined in Section 4.1, above. The Conservation Significance of each EVC in each site was determined as described in Section 3.4 and is mapped in Figure 2.

It is outside the scope of the current study to record rare or threatened species, but the most significant recorded for the DRA and remnant sites are discussed below.

Rare or threatened plant species

Twenty two rare or threatened plant species (DSE 2005) have been recorded for the Frankston municipality in the Data Review Area (DRA). Of these, only four were recorded in our delineated remnant sites. One other species is not in the DRA records for the study area, *Pterostylis tasmanica* Southern Plume-orchid, but has been recorded in Langwarrin Flora and Fauna Reserve (Leon Costermans pers. comm.).

One species, *Glycine latrobeana* Clover Glycine is EPBC- and FFG-listed and was recorded in Site 4: Upper Sweetwater Creek.

Diuris punctata var. *punctata*, Purple Diuris is also FFG listed and has been recorded in Site 22: Langwarrin Flora and Fauna Reserve.

Two other State significant orchids also occur in remnant sites: *Pterostylis pedoglossa* Prawn Greenhood and *Caladenia venusta* Large White Spider-orchid were recorded in Langwarrin Flora and Fauna Reserve and The Pines Flora and Fauna Reserve (Site 39), respectively.

Spiranthes australis Austral Ladies Tresses was previously listed as a signficant species by DSE but is no longer listed. It is at least regionally significant however and occurs in Langwarrin Flora and Fauna Reserve and Willow Road Reserve - Site 17, (Leon Costermans pers. comm.).

The following table (Table 1) lists the species recorded or potentially present in remnant sites.

Locally significant species have not been included but would be useful on a site by site basis for land managers. Appendix 4 may be used by interested groups to add such data where required.

Table 1. Significant plant species recorded in the Frankston municipality and their presence in remnant sites.

Data from: Flora Information System, Biodiversity and Natural Resources, DSE - May 2005 - © Viridans Biol. Databases.

Species	Common Name	Significance			Location (Site No.)
		EPBC	FFG	DSE	
National Significance					
Caladenia robinsonii	Frankston Spider-orchid	E		e	NR
Glycine latrobeana	Clover Glycine	V	L	v	Upper Sweetwater Ck (4)
Senecio psilocarpus	Swamp Fireweed	V		v	NR
State Significance					
Austrofestuca littoralis	Coast Fescue			r	Seaford F. Res. (25), Sweetwater Ck Res. (6), Kananook Ck Res (27)
Burnettia cuneata	Lizard Orchid			r	NR
Caladenia dilatata s.s.	Green-comb Spider-orchid			k	L'warrin Fl. & F. Res. (22), Paratea Res (2), The Pines Fl. & F. Res. (39), Studio Park (46), S'water Ck Res. (6), Bunarong Park (16)
Caladenia venusta	Large White Spider-orchid			r	Pines Fl. & F. Res. (39)
Chiloglottis x pescottiana	Bronze Bird-orchid			r	NR
Chorizandra australis	Southern Bristle-sedge			k	Pines Fl. & F. Res. (39)
Corybas fimbriatus	Fringed Helmet-orchid			r	NR
Diuris punctata var. punctata	Purple Diuris		L	v	L'warrin Fl. & F. Res. (22)
Eleocharis macbarronii	Grey Spike-sedge			k	NR
Entolasia stricta	Upright Panic			k	NR
Eucalyptus fulgens	Green Scentbark			r	NR
Helichrysum aff. rutidolepis (L. Swamps)	Pale Swamp Everlasting			v	NR
Lachnagrostis filiformis var. *2*	Wetland Blown-grass			k	NR
Lachnagrostis punicea ssp. *filifolia*	Purple Blown-grass			r	NR
Poa labillardierei var. *(Volc. Plains)*	Basalt Tussock-grass			k	NR
Prasophyllum lindleyanum	Green Leek-orchid				NR
Pterostylis pedoglossa	Prawn Greenhood			v	L'warrin Fl. & F. Res. (22)
Pterostylis X toveyana	Mentone Greenhood			v	NR
Pterostylis tasmanica [LC]	Southern Plume-orchid			k	L'warrin F& F Res (22)
Ranunculus amplus	Feather-leaf Buttercup			r	Kananook Ck Res (27)

National Significance: EPBC / DSE categories - E = Endangered; Vul = Vulnerable (DSE 2005).

State significance: FFG listings: L = listed
DSE rare or threatened categories: e = endangered; r = rare; v = vulnerable; k = insufficient data (DSE 2005).

NR - Not recorded in remnant sites LC Leon Costermans pers. comm.

5 Management Issues

It is beyond the scope of this study to detail the management issues associated with remnant vegetation in Frankston. All remnant vegetation requires management to ensure its ongoing survival and it is hoped that the remnant vegetation sites documented in this report will be accorded the requisite level of management intervention in order to maintain and enhance their biological values.

In the course of field work the following threats to the survival of remnant vegetation were consistently noted:

- Removal of vegetation;
- Clearing or slashing of understorey beneath trees, which tends to reduce, often dramatically, the significance of the remnant;
- Weed invasion, in particular Coast/Sallow Wattle (*Acacia longifolia* s.l.) and Coast Tea-tree (*Leptospermum laevigatum*), away from the coastal fringe;
- Many other serious environmental and noxious weeds;
- Grazing;
- Pest animals (particularly cats and foxes);
- Altered hydrology, e.g. dam construction, drainage of swampy areas.

Apart from clearing of remnants, weed invasion and the degradation it causes, is by far the most important issue threatening biological values in the municipality. A table of the most serious environmental weed species is presented below (Table 2).

Table 2. Major environmental weed species requiring control in remnant vegetation in Frankston.

Note: Generally, woody species (trees and shrubs) have been listed, with only the most serious of herbaceous species Although many other herbaceous species (particularly grasses) may have devastating ecological impacts, their control is usually impracticable.

STATUS	SPECIES	COMMON NAME
+	*Acacia longifolia s.l*	Sallow Wattle / Coast Wattle
	Acetosa sagittata	Climbing Dock
R	*Asparagus asparagoides*	Smilax Asparagus
	Asparagus scandens	Asparagus
	Acacia baileyana	Cootamundra Wattle
	Acacia elata	Cedar Wattle
	Acacia floribunda	White Sallow Wattle
	Agapanthus praecox ssp. orientalis	Agapanthus
	Angophora costata	Smooth Angophora
	Arbutus unedo	Irish Strawberry Tree
C	*Calicotoma spinosa*	Spiny Broom
	Buddleja dysophylla	Chilianthus
C	*Chrysanthemoides monilifera ssp. monilifera*	Boneseed
C	*Cirsium vulgare*	Spear Thistle
	Coprosma repens	Mirror-bush
	Coprosma robusta	Large Coprosma
	Cortaderia jubata/selloana	Pampas Grass
	Cotoneaster glaucophyllus	Large-leaf Cotoneaster
	Cotoneaster pannosus	Velvet-leaf Cotoneaster
C	*Crataegus monogyna*	Hawthorn
	Crocosmia x crocosmiiflora	Montbretia
	Cytisus palmensis	Tree Lucerne
C	*Cytisus scoparius*	English Broom
	Delairea odorata	Ivy Groundsel
	Dipogon lignosus	Common Dipogon
C	*Echium plantagineum*	Paterson's Curse
	Erica baccans	Berry-flower Heath
	Erica lusitanica	Spanish Heath
C	*Foeniculum vulgare*	Fennel
	Fraxinus angustifolia ssp. angustifolia	Desert Ash
C	*Genista linifolia*	Flax-leaf Broom
C	*Genista monspessulana*	Montpellier Broom
	Genista (garden hybrid)	Garden Broom
	Gladiolus tristis	Evening-flower Gladiolus
	Gladiolus undulatus	Wild Gladiolus
	Hakea salicifolia	Willow-leaf Hakea
	Hakea suaveolens	Sweet Hakea

STATUS	SPECIES	COMMON NAME
	Hedera helix	Ivy
	Ipomoea indica	Morning-glory
+	*Leptospermum laevigatum*	Coast Tea-tree
	Leucanthemum vulgare	Ox-eye Daisy
	Ligustrum lucidum	Large-leaf Privet
	Lonicera japonica	Japanese Honeysuckle
C	*Lycium ferocissimum*	African Box-thorn
	Malus pumila	Domestic Apple
P	*Marrubium vulgare*	Horehound
	Melaleuca armillaris	Bracelet Honey-myrtle
	Olea europaea ssp. Africana	African Olive
	Paraserianthes lophantha	Cape Wattle
	Phytolacca octandra	Ink Weed
	Pinus radiata	Monterey Pine
	Pittosporum undulatum	Sweet Pittosporum
	Pinus pinaster	Maritime Pine
	Polygala myrtifolia	Myrtle-leaf Milkwort
	Prunus cerasifera	Cherry Plum
	Pyracantha angustifolia	Narrow-leaf Firethorn
	Pyracantha crenulata	Firethorn
	Quercus robur	English Oak
	Rhamnus alaternus	Italian Buckthorn
C	*Rosa rubiginosa*	Sweet Briar
C	*Rubus anglocandidans*	Blackberry
P	*Rubus fruticosus* spp. agg.	Blackberry
R	*Salix* spp.	Willows
	Senecio angulatus	Climbing Groundsel
C	*Senecio jacobaea*	Ragwort
	Solanum mauritianum	Wild Tobacco Tree (Tobacco Nightshade)
	Sollya heterophylla	Bluebell Creeper
	Tradescantia fluminensis	Wandering Jew
C	*Ulex europaeus*	Gorse
	Vinca major	Blue Periwinkle
C	*Watsonia meriana var. 'bulbillifera'*	Bulbil Watsonia
	Zantedeschia aethiopica	White Arum Lily

Shaded species are the most abundant.

\+ Ecologically 'out-of-balance' indigenous species which are natural members of Coastal EVCs, but weedy outside the coastal context.

C Denotes Regionally controlled weeds under the Catchment and Land Protection Act 1994

P Denotes Regionally prohibited weeds under the Catchment and Land Protection Act 1994

R Denotes Regionally restricted weeds under the Catchment and Land Protection Act 1994.

6 Review of legislation and planning controls relating to native vegetation

The main legislation and policies relating to the protection and management of native vegetation at national, State and regional levels are outlined below, followed by a review of the current provisions for native vegetation in the Frankston Planning Scheme.

6.1 Legislation and policies for native vegetation protection

6.1.1 National

The Commonwealth ***Environment Protection and Biodiversity Conservation Act 1999*** establishes processes for listing and protecting threatened species & ecological communities, and creating protected areas including World Heritage and Ramsar listed sites. Amongst other things, the EPBC Act makes it an offence for any person to take an action that is likely to have a significant impact on matters protected by the Act, unless they have the approval of the Australian Minister for the Environment and Heritage. Those protected matters include matters of National Environmental Significance (NES matters), as well as the environment of Commonwealth land.

NES matters include listed nationally threatened species and communities, wetlands listed under the Ramsar Convention, and migratory species protected under international agreements. Proposed actions must be referred to the Commonwealth Environment Minister, either by the proponent, or by a State, Territory or Commonwealth Minister or government agency with responsibilities relating to the proposed action. If a proposal is declared to be a 'controlled action', then an assessment of its effects will be required, and it may not proceed until approved (with or without conditions) by the Commonwealth Minister for the Environment. There are opportunities for public submissions through this process.

A local government is only obliged to refer an action that the local government itself proposes to take. Local government works activities involving, for example, clearing native vegetation, changing the natural flow of water, or controlling weeds and other pests should be referred to the Environment Minister if it is likely the action would have a significant impact on a matter protected under the EPBC Act. Planning instruments and decisions do not need approval under the EPBC Act. While it is the responsibility of proponents to ensure that they have all the necessary approvals before taking an action, local governments are encouraged to tell proponents that some actions may need Commonwealth approval under the EPBC Act (see http://www.deh.gov.au/epbc/index.html).

A search of the EPBC Act database for NES matters in the City of Frankston as of 4 April 2006 produced the following summary:

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Significance: (Ramsar Sites)	2
Commonwealth Marine Areas:	Relevant
Threatened Ecological Communities:	None
Threatened Species:	35
Migratory Species:	25

The ***National Strategy for the Conservation of Australia's Biological Diversity*** was agreed to in 1996 as part of Australia's responsibilities under the International Convention on Biological Diversity (1992). It provides a framework for Commonwealth and State government biodiversity protection activities. The Strategy aims to close the gap between what is presently being done and what needs to be done to identify and conserve Australia's biodiversity. The Strategy covers six specific areas, with identified targets under each. These areas are:

- developing better management strategies for biodiversity at a regional level;
- improving the knowledge and management practices of the agriculture, fisheries, forestry, water and tourism industries;
- improving management of the various threats to biodiversity;
- improving our understanding of biodiversity, including incorporating the knowledge and traditional practices of Indigenous Australians in biodiversity research and conservation programs;
- involving individuals and groups in its conservation;
- participating in international agreements.

The Commonwealth, State and Territory governments committed themselves in 1997, through the Natural Heritage Trust, to reverse the long-term decline in the quality and extent of Australia's native vegetation. The ***National Framework for the Management and Monitoring of Australia's Native Vegetation***, completed in December 1999, is an initiative of the Australian and New Zealand Environment and Conservation Council. Part of the Framework requires that work plans be prepared and adopted for each jurisdiction (Commonwealth, State and Territories) that describe actions and timelines, desired native vegetation outcomes, and monitoring and evaluation of performance. The role of local government is noted in the Framework.

6.1.2 State

The primary overarching legislation for biodiversity conservation is the ***Flora and Fauna Guarantee Act 1988***. This provides a legal framework for the protection of Victoria's native plants and animals and ecological communities. The aim is to ensure that Victoria's native flora and fauna survive, flourish and retain their potential for evolutionary development in the wild. Action statements are prepared for threatened flora and fauna and potentially threatening processes listed under the Act. The Act requires all public authorities to be administered so as to have regard to the flora and fauna conservation objectives.

Under the State Planning Policy Framework in all planning schemes (Cl. 15.09), decision-making by planning and responsible authorities should assist the conservation of the habitats of threatened and endangered species and communities as identified under the Act, and address potentially threatening processes identified under the Act.

In 1997 the State released its ***Biodiversity Strategy*** which fulfills a requirement under the Flora and Fauna Guarantee Act to prepare a strategy that includes proposals for ensuring the survival, abundance and development in the wild of all taxa and communities of flora and fauna. The Strategy aims to:

- increase the awareness of the need to conserve biodiversity;
- co-ordinate response within bioregional[4] networks;
- continue developing partnership between communities, industry and government;
- indicate the existing and proposed mechanisms for achieving the objectives of flora and fauna conservation and management in the context of ecological sustainability;
- detail strategic frameworks to prevent further loss of habitat;
- highlight the habitats, major threatening processes and environments that require urgent attention.

Under the ***Planning and Environment Act 1987***, local governments have the responsibility for the control of land use and planning within their municipalities. Local governments are responsible for developing and enforcing a planning scheme for their local area. The scheme sets out policies and requirements for the use, development and protection of land. The format must follow the structure of the **Victoria Planning Provisions** (VPP), which includes particular provisions in relation to the protection and conservation of native vegetation. The State Planning Policy Framework in the VPP includes an objective: 'to assist the protection and conservation of biodiversity, including native vegetation retention and provision of habitats for native plants and animals and control of pest plants and animals.' Clause 15.09 of the State Planning Policy Framework establishes the requirement for planning authorities to have regard to Victoria's Biodiversity Strategy and other instruments made

[4] Bioregions are geographical areas with similar physical features such as soils and topography.

under the Flora and Fauna Guarantee Act, as well as approved regional vegetation plans, when reviewing Municipal Strategic Statements and amending planning schemes.

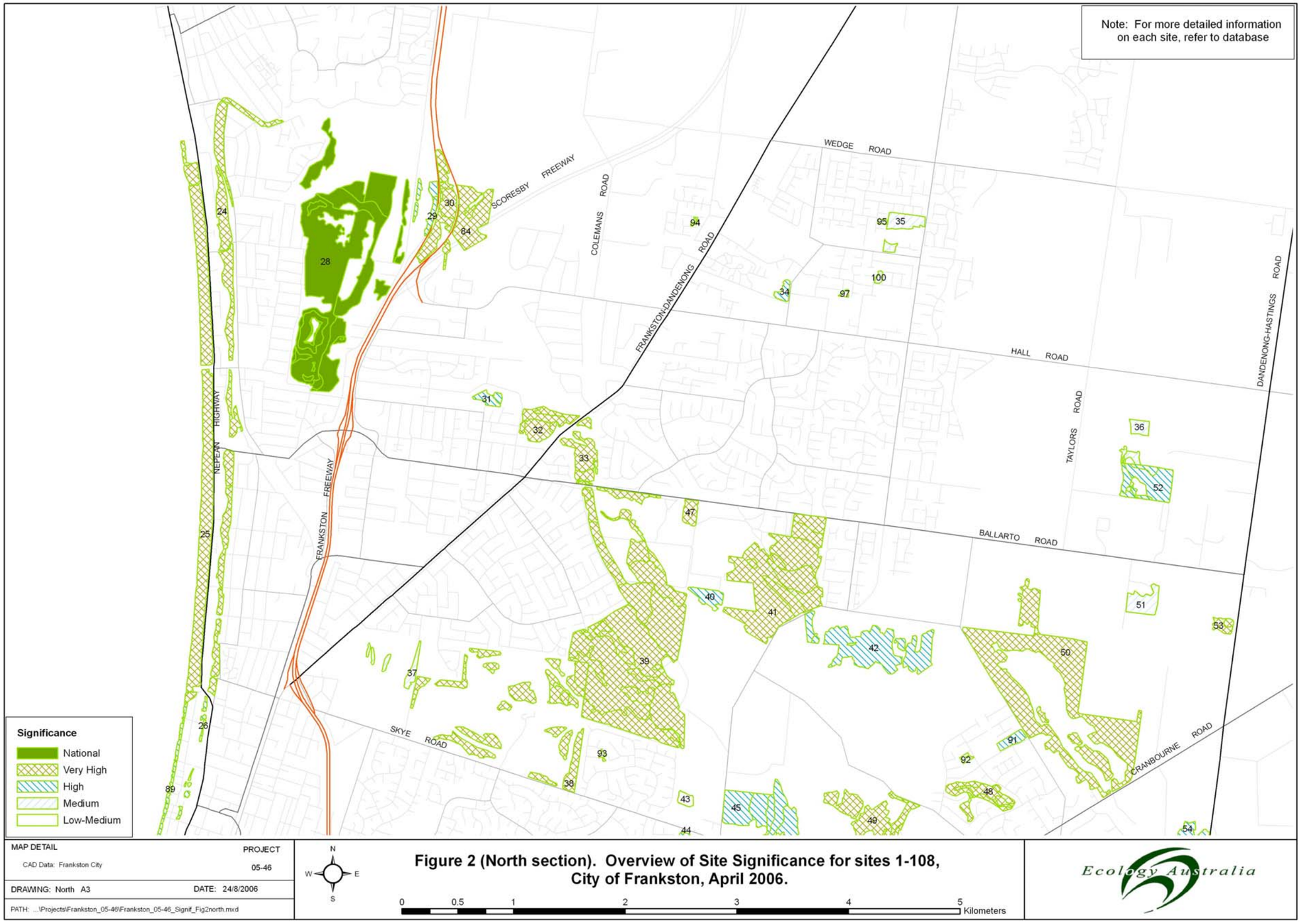

Figure 2 (North section). Overview of Site Significance for sites 1-108, City of Frankston, April 2006.

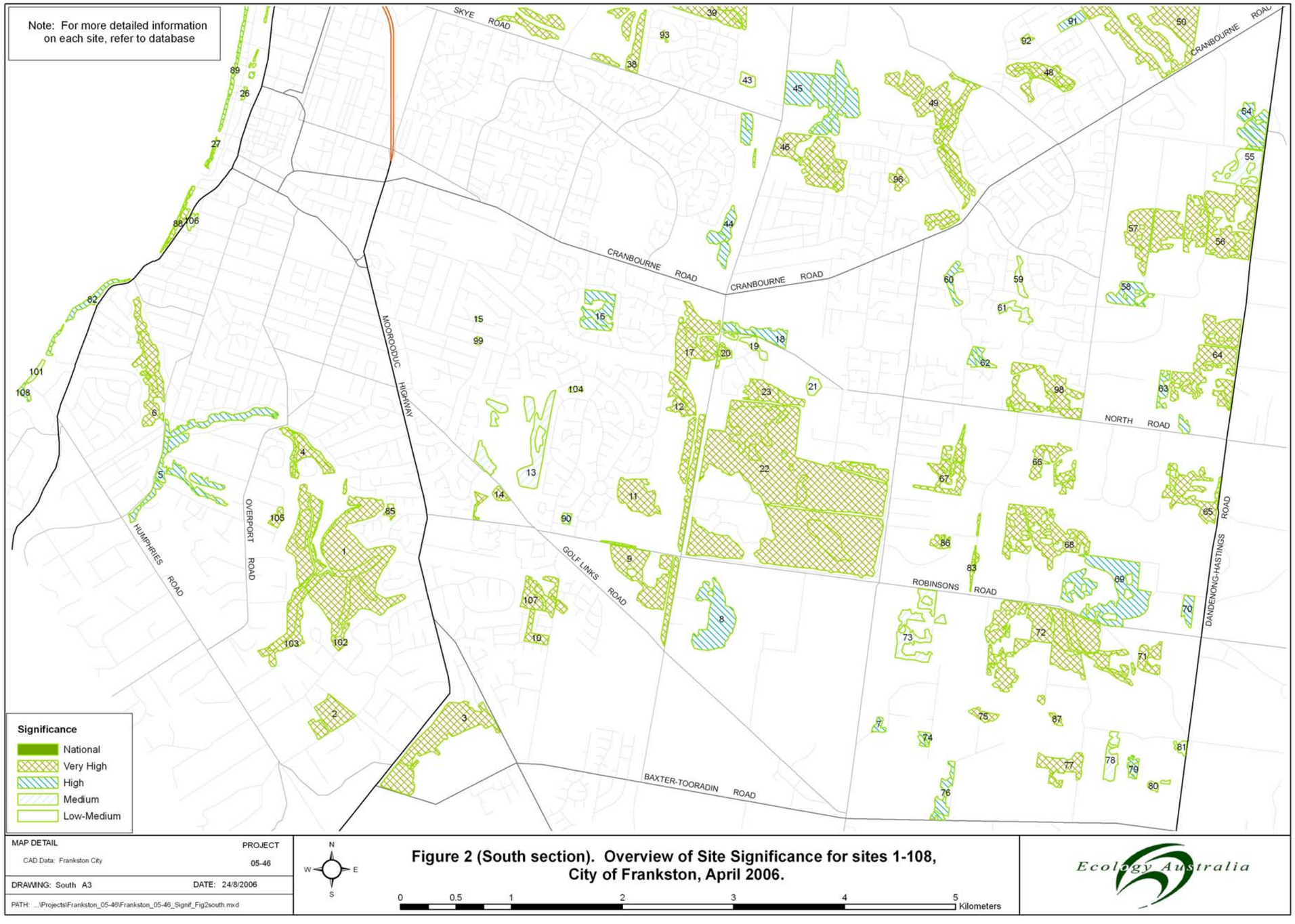

Figure 2 (South section). Overview of Site Significance for sites 1-108, City of Frankston, April 2006.

Under S.173 of the Planning and Environment Act, local government can enter into an agreement with a landowner. This provision can be used to protect and manage significant vegetation on sites undergoing development.

Victoria's Native Vegetation Management - A Framework for Action (2002) is a State government policy developed to implement the objectives of Victoria's Biodiversity Strategy and the National Strategy for the Conservation of Australia's Biological Diversity. It establishes the strategic direction for the protection, enhancement and revegetation of native vegetation across the State.

The Framework's main goal is to achieve a reversal, across the entire landscape of the long-term decline in the extent and quality of native vegetation, leading to a net gain.

The Framework includes a set of tools for estimating general vegetation and habitat quality on a consistent statewide basis, and a proposed accounting system to implement the concept of 'net gain'. Net gain refers to a reversal, across the landscape, of the long-term decline in the extent and quality of native vegetation. Net gain will be achieved as a result of landholder and government-assisted efforts to protect and improve native vegetation. In addition, permitted clearing must be offset in a way that adequately adresses the future impacts of such clearing. An offset can take the form of active protection and management of remnant vegetation, or revegetation with indigenous species either on-site or in the same vegetation community nearby.

The policy provisions of the Framework have been incorporated into all Victorian planning schemes (Cl. 15.09 and 81). Local government must have regard to the Framework when considering development or subdivision applications, or planning scheme amendments that may involve native vegetation clearance. A three-step approach is to be used:

1. **Avoid** native vegetation removal.
2. If removal cannot be avoided, **minimise** loss through appropriate planning and design.
3. Identify appropriate **offset** options.

Table 6 in the Framework summarises responses to proposals to clear, and offset criteria are graded according to conservation significance of the vegetation, as summarised below:

Significance of vegetation	Response to clearing proposal	Net Outcome if clearing permitted	Like for Like
Very High	Clearing not permitted unless exceptional circumstances apply[5]	Substantial net gain (at least 2 x the calculated loss in habitat hectares)	Must be same EVC with similar ecological function and land protection function, and be >90% of quality of vegetation being removed
High	Clearing generally not permitted	Net gain (at least 1.5 x the calculated loss in habitat hectares)	Must be same EVC or Very High significance in same Bioregion and have similar ecological function or land protection function, and be >75% of quality of vegetation being removed
Medium	Clearing generally not permitted	Equivalent net gain (at least 1 x the calculated loss in habitat hectares)	Can be any EVC or Very High or High significance in adjacent Bioregion and have similar ecological function and be >50% of quality of vegetation being removed
Low	Clearing may be permitted as part of sustainable use response as determined by the responsible planning authority	Equivalent net gain (at least 1 x the calculated loss in habitat hectares)	

The Victorian ***Weed Management Strategy***, prepared by the State Government in 2002, provides information on the management of all types of weeds including declared and undeclared, agricultural and environmental, terrestrial and aquatic. One of the guiding principles of the Strategy is that weed management is essential in the protection of native vegetation.

All **planning schemes** contain **native vegetation provisions** (Statewide clearing controls, originally introduced in 1989) at Cl. 52.17 in the Particular Provisions. A planning permit is required to remove, destroy or lop native vegetation, unless

- the application is exempt[6] under the schedule to Cl. 52.17, or
- it is in accordance with an approved native vegetation precinct plan.

The mechanism of a native vegetation precinct plan was introduced into planning schemes in March 2006. Such a plan may form part of a more general strategic or precinct structure plan. It identifies native vegetation to be protected and vegetation to be removed within a defined area, and specifies works or payments necessary to offset the removal of native vegetation. It can secure significant native vegetation as part of regional open space networks and conservation areas. Once a native vegetation precinct plan is incorporated into the planning scheme via an amendment, no permit is required under Cl.52.17 if vegetation removal is in accordance with the plan.

[5] i.e. impacts are an unavoidable part of a development project, with approval of the Minister for Environment / or delegate, based on considerations of environmental, social and economic values from a statewide perspective.

[6] An Advisory Committee to the Minister for Planning has recently reported on its review of the exemptions.

Cl. 66 in all planning schemes (amended in March 2006) sets out the types of native vegetation applications that must be referred to the Secretary to the Department of Sustainability and Environment. These include the removal of more than 15 small trees, or more than 5 large trees, more than 0.5ha of an endangered, vulnerable or rare vegetation type, more than 1ha of other native vegetation, or on Crown land managed by the responsible authority. A guide for Department officers undertaking assessments is still being finalised (April 2006).

The Department of Sustainability and Environment has published an **Advisory Note** (*New native vegetation provisions in planning schemes*), and several **VPP Practice Notes** to explain the March 2006 amendments to native vegetation provisions in planning schemes, introduced to assist in implementing the Native Vegetation Management Framework[7]. The Practice Notes are:

Assessing applications involving native vegetation removal

Managing native vegetation in the planning system

Preparing a native vegetation precinct plan

Native vegetation offsets.

The *VPP Planning Practice Note on Biodiversity* (Dept of Infrastructure 2002) encourages and explains the use of planning policies and controls to guide decision-making about new use and development to protect biodiversity, especially on private land. It provides examples of planning tools which can be used in planning schemes.

6.1.3 Regional

Every catchment authority in Victoria has prepared a Native Vegetation Plan. The plans assist in the implementation of Victoria's *Biodiversity Strategy* by aiming to reduce the decline in the extent and quality of native vegetation. The ***Port Phillip and Westernport Native Vegetation Plan*** was published in draft form in 1997. The final version has been recently adopted by the Port Phillip and Westernport Catchment Management Authority and forwarded to the Minister for Environment for approval. The plan identifies the most important areas of native vegetation in the region and sets priorities for protection, management and restoration of these areas. The plan also outlines priority areas for revegetation activities, and offset requirements where vegetation is removed. Once the plan is approved, Cl. 52.17 of planning schemes requires responsible authorities to consider the offset requirements before deciding on an application to remove native vegetation.

[7] Note that Councils were told by the Minister in November 2005 that the draft Operational Guidelines for implementing the Framework, previously issued by the Department, are not to be used in assessing applications relating to native vegetation.

6.2 Native vegetation protection in the Frankston Planning Scheme

Native vegetation protection can be furthered in various ways through the local section of the planning scheme:

- the *Municipal Strategic Statement,* which needs to justify why vegetation is being protected in the scheme
- local policy, to explain and inform planning decisions
- overlay provisions, e.g. the Significant Landscape Overlay or the Environmental Significance Overlay.

The Statewide provisions establish minimum requirements for native vegetation, but local councils can go further in the local content of their planning schemes. The Local Planning Policy Framework and some planning scheme overlays may also express local objectives and requirements for the protection, retention or management of native vegetation in specific areas. It is possible, for example to boost the protection of vegetation types that are rated of 'least concern' at a State level, if they are valued more highly within the municipality.

The current provisions for the protection of native vegetation in the Frankston Planning Scheme are outlined and discussed below, and some recommendations for updating and improvement are made in the following chapter.

6.2.1 Municipal Strategic Statement

The municipal profile (Cl.21.01) makes only a brief reference to natural bushland reserves in open spaces.

In Cl. 21.02, key influences on land use planning and the future form of the City include flora and fauna: a number of areas of remnant vegetation of significance for flora and fauna conservation. Arresting vegetation loss and the consequent decline in biodiversity is noted as a significant challenge to the City.

The Strategic Land Use Framework Plan (Cl.21.03) states that "the City's significant indigenous vegetation remnants are identified and will be protected."

The section dealing with natural environment and cultural heritage (Cl.21.11) provides detailed treatment of native vegetation. It notes the relatively large area and variety of remnant indigenous vegetation in comparison with other municipalities to the southeast of Melbourne. Additional information about the values of indigenous vegetation in the local and regional context could be provided to further justify why it is being protected in the scheme. It refers to a 'recent study' [i.e. Muir et al. (1997)] that identified 130 sites of botanical and zoological significance. Strictly, the study was of botanical significance only; no detailed study of sites of zoological significance has been completed for the municipality although it is likely that virtually all sites of zoological significance are also of botanical significance. This reference should be updated to the current study. Threats are identified as clearing, grazing, pest plants and animals. Objectives include: "To maintain the current level of biological diversity in the City." Implementation measures include:

- using local policy to provide guidance in dealing with proposals that would affect sites of significance for indigenous flora and fauna
- requiring the revegetation of specific land to re-create faunal habitat corridors
- applying the Public Conservation and Resource Zone to identify and protect publicly-owned land that has high nature conservation values
- applying the Environmental Significance Overlay to identify and protect sites of flora and fauna significance
- applying the Significant Landscape Overlay in areas at Carrum Downs, Langwarrin and Baxter to protect remnant vegetation that makes a substantial contribution to landscape character and quality.

6.2.2 Local Planning Policy Framework

As foreshadowed in the Municipal Strategic Statement, there is an Indigenous Flora and Fauna Policy at Cl.22.06 of the Local Planning Policy Framework. This applies to areas of indigenous vegetation and in particular to sites of botanical significance identified on Map 1 to Schedule 1 of the Environmental Significance Overlay. The policy provides a strong basis for protection and enhancement of sites of botanical or zoological significance, for example: "Indigenous vegetation not be cleared from sites of botanical or zoological significance unless it can be clearly demonstrated that no alternatives are available." However, there is some potential confusion as to whether protection is focussed on the sites on the map of 'Sites of botanical and zoological significance' at Cl.21.11 of the MSS, or the greater number of sites on Map 1 to Schedule 1 of the ESO.

The local policy for the South East Non-Urban Area (Cl. 22.15) has an objective "to protect and enhance environmental values, including wetlands, flora and fauna habitats and hydraulic functions". It is policy to prepare a framework plan and detailed local structure plan for the area. This detailed planning process could now include a native vegetation precinct plan/s, using the mechanism introduced into planning schemes in March 2006.

6.2.3 Overlays

The Environmental Significance Overlay (ESO) is preferred by the Department of Sustainability and Environment for the protection of significant native vegetation and other environmental values such as threatened fauna habitats. The Frankston Planning Scheme applies the ESO to areas of botanical or zoological significance as specified in Table 1 and Map 1 to Schedule 1. These areas correspond to the sites identified in the 1997 study by Muir *et al*. Protection of these areas with the ESO is a major step towards their protection.

The Significant Landscape Overlay (SLO) has been applied in the Frankston Planning Scheme in several areas where native vegetation is identified as being important to landscape significance. SLO Schedule 1 covers the Langwarrin hinterland and Baxter-Mt Eliza escarpment. It is noted that remnant vegetation makes a significant contribution to the landscape character of the area and is of botanical and habitat significance. Objectives under Schedule 1 include "to conserve and enhance the area's native vegetation for its intrinsic, habitat and landscape values".

SLO Schedule 2 applies to a stand of Red Gums in the Carrum Downs area. The landscape character objective is "to conserve and enhance the remnant stands of River Red Gum (*E. camaldulensis*) and associated indigenous vegetation for their intrinsic, habitat and landscape values". This Overlay provides protection to some of the municipality's native vegetation that is not within identified sites of botanical significance.

6.2.4 Conclusions

The protection of native vegetation is mandated in legislation, policies and strategies at national, State and regional levels. The City of Frankston already has a relatively comprehensive set of provisions for the protection of native vegetation in the local section of its Planning Scheme, but some revisions are needed to ensure consistency with current State policies and incorporate more recent information about significant vegetation.

Many of the current provisions were introduced as a result of the 1997 study by Muir et al. The current vegetation study has updated the 1997 study and its findings should be reflected in the Planning Scheme. The major policy development since the current provisions were introduced is the State Government's adoption of the Native Vegetation Management Framework to establish the strategic direction for the protection, enhancement and revegetation of native vegetation across Victoria. The Framework's policy provisions have been incorporated into all Victorian planning schemes, and a number of statewide amendments have been made in 2006 to facilitate and support its implementation. It is timely to review the local provisions of the Frankston Planning Scheme to ensure that it is consistent with the statewide Framework, and provides appropriate protection for significant native vegetation.

The Municipal Strategic Statement includes a good coverage of native vegetation issues and protection measures, which requires only minor amendment.

The Indigenous Flora and Fauna Policy requires only minor amendment.

The Environmental Significance Overlay Schedule 1 is the key local planning control in the Frankston Planning Scheme for the protection of significant native vegetation. These provisions should be updated with the results of the current study.

In addition, the decision guidelines in Schedule 1 should be revised to reflect the principles of the Native Vegetation Management Framework.

In parts of the municipality undergoing land use change and intensification of development, Council can encourage or initiate the preparation of vegetation precinct plans, as a means of strategically managing native vegetation across the area.

There is an opportunity for Council to be proactive in protecting and enhancing significant native vegetation by identifying secure and appropriate sites within the municipality where offsets could be achieved to make reparation for unavoidable vegetation removal. Council's policy to achieve offsets within the municipality if possible, could be written in to the Planning Scheme.

Once the Port Phillip and Westernport Native Vegetation Plan has been approved, the offset requirements specified in the Plan should be applied by Council when deciding on planning applications involving removal of native vegetation.

7 Recommendations

Update Cl.21.11 *Natural environment and cultural heritage* in the Municipal Strategic Statement to refer to this study and its findings.

Revise the local policy 22.06 *Indigenous flora and fauna*:

- add Victoria's Biodiversity Strategy to 22.06-1
- replace the Commonwealth Endangered Species Act 1992 with the Environment Protection and Biodiversity Conservation Act 1999 in 22.06-3
- establish the principle of locating offsets within the municipality if possible, in order to achieve the objective (MSS Clause 21.11) of maintaining the current level of biological diversity in the City
- list the current study as a reference.

Take steps to overcome potential confusion between differing maps of sites of botanical and zoological significance in the MSS (Cl. 21.11) and Schedule 1 to the Environmental Significance Overlay. The map at Cl.21.11 is only a generalised representation of larger sites (the title and/or legend should indicate this), while the map in the ESO schedule is detailed and shows more sites.

In Schedule 1 to the ESO, review the decision guidelines and where appropriate, align with the decision guidelines under Cl.52.17 of the Planning Scheme so as to reflect the principles of the Native Vegetation Management Framework.

Replace Table 1 and Map 1 in Schedule 1 to the ESO with information in this report.

[Note that annotations have been provided separately on relevant sections of the current Planning Scheme text regarding specific alterations to implement the recommendations above.]

Revise the ESO1 boundaries if necessary, to accord with information from the current study.

Review the zoning of publicly-owned land to ensure that the Public Conservation and Resource Zone applies to sites identified in the current study as of High or Very High significance (refer Appendix 4, Table 1). (Note that this is an implementation measure in the MSS Cl. 21.11.)

Identify opportunities and suitable precincts in which to initiate and/or sponsor the preparation of native vegetation precinct plans. Areas with native vegetation and undergoing land use change and development, such as around Langwarrin, may be appropriate. Such plans would be incorporated in the planning scheme and listed in the schedule to Cl.52.17. They could be prepared in conjunction with detailed structure planning for a local area about to undergo development.

Identify suitable locations in the municipality for secure vegetation offsets, for use when offsets required under a planning permit cannot be undertaken on the applicant's property. Locations could be Crown land or other public land, Council bushland reserves, and private land, including land proposed to be revegetated as faunal habitat corridors (MSS Cl. 21.11).

Prepare and publish a brochure outlining planning scheme controls over native vegetation removal, and assistance available for native vegetation management. Disseminate to all landholders in parts of the municipality with native vegetation.

Investigate the feasibility of providing financial and other assistance to encourage landholders to prepare property vegetation plans, and to actively protect and manage the native vegetation on their properties.

Review planning enforcement activities and resources with a focus on native vegetation. If necessary, increase monitoring and patrols, and publicise a ‘no tolerance’ approach to illegal clearing.

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9 References

Australia Department of the Environment, Sport & Territories. (1996). National Strategy for the Conservation of Australia's Biological Diversity.Canberra.

Australian Ecosystems (2005). Vegetation Assessment and Management Recommendations In: Edithvale – Seaford Wetlands. Revegetation Prescriptions. Report prepared for Melbourne Water and Frankston City Council by Thompson Berril Landscape Design P/L and Australian Ecosystems P/L.

Australian and New Zealand Environment and Conservation Council (1999). National Framework for the Management and Monitoring of Australia's Native Vegetation.

Biosis Research (2003). 'Mitcham-Frankston Freeway: Net Gain policy vegetation assessment'. (Unpublished report prepared for Southern and Eastern Integrated Transport Authority, by J.Yugovic and N. Barnes, Biosis Research Pty Ld, Victoria).

Bird, E.C.F. (1993). *The Coast of Victoria. The Shaping of Scenery*. Melbourne University Press, Melbourne.

Brunner, H. and Courtney, B. (1996). Flora and Fauna Surveys of Natural Reserves in Frankston.

Calder, W. (1986). *Peninsula Perspectives. Vegetation on the Mornington Peninsula, Victoria*. Jimaringle Publications, Canterbury, Victoria.

Costermans, L. (2003). Langwarrin Flora and Fauna Reserve vascular plant list. Unpublished data.

DEH (2004). Department of Environment and Heritage Protected Matters Database. Internet site (http://www.deh.gov.au/erin/ert/epbc/imap/map.html) maintained by the Department of Heritage and Environment.

Department of Infrastructure (2002). VPP Planning Practice Note: Biodiversity. Melbourne.

Department of Natural Resources & Environment (1997) *Victoria's Biodiversity: Sustaining Our Living Wealth*. DNRE, Melbourne.

DSE (2002). *Victoria's Native Vegetation Management - A Framework for Action*. Melbourne. (Department of Sustainability and Environment: East Melbourne.)

DSE (2004 a). Flora Information System. Arthur Rylah Institute, Heidelberg.

DSE (2004 b). Victorian Flora Species Index. Department of Sustainability and Environment, Parks, Flora and Fauna Division.

DSE (2005 a). 'Ecological Vegetation Classes and Sites of Biodiversity Significance: Port Phillip and Westernport Region January 2005 (CD-ROM)'. Produced by the State of Victoria, Department of Sustainability and Environment for Land and Water Management Agencies. (Department of Sustainability & Environment: East Melbourne.)

DSE (2005 b). *Advisory list of rare or threatened plants in Victoria – 2005.* (Department of Sustainability and Environment: East Melbourne.)

Ecology Australia (1993). Conservation and Ecology In: Frankston Coastline Management Study. Draft Final Report. Prepared by Dennis, Price and Miller P/L, D.J. Douglas & Partners P/L, Steedman Science and Engineering, Context P/L and Ecology Australia P/L for Frankston City Council.

Faithfull, I. (2005). The Former Keith Turnbull Research Institute. Prologue, Notes and Observations for a Natural History. Prepared by Ian Faithfull for Department of Primary Industries - Frankston, formerly Keith Turnbull Research Institute, Ballarto Road, Frankston North, Victoria.

Frankston City Council (2005). Aerial Orthophotography CD, incorporating ECW Tiles and Cadastre. Frankston City Council.

Frankston City Council (1997). Studio Park Management Plan. Draft report prepared for Frankston City Council by Riparian Australia. Frankston City Council, Frankston, Victoria.

Frankston City Council (1992). Kananook Creek Final Management Plan. City of Frankston and Melbourne Water.

Gullan, P.K. (1978). Vegetation of the Royal Botanic Gardens Annexe at Cranbourne, Victoria. *Proceedings of the Royal Society of Victoria* 70: 225-40.

Port Phillip & Westernport Catchment & Land Protection Board (1997). *Draft Native Vegetation Plan for the Port Phillip & Westernport region.*

State of Victoria *(2002) Victoria's Native Vegetation Management - A Framework for Action.* Melbourne.

State of Victoria *(2002) Victorian Weed Management Strategy.*

Walker, G., Greening, J., Duggan, D. (1993). The Vegetation and Management of Seaford Foreshore Reserve. Report prepared for the Seaford Foreshore Reserve Committee of Management by Save the Bush and National Trust (Vic.).

Wilson, C., Campbell, C.J. and Bedggood S.E. (2005). Kananook Creek Reserve, Long Island, Frankston: Flora and Fauna Assessment. Report prepared for Frankston City Council. Ecology Australia, Fairfield.

Appendix 1. Example of EVC Benchmark; used to assess Valley Heathy Forest in the Gippsland Plain bioregion.

Department of Sustainability and Environment

EVC/Bioregion Benchmark for Vegetation Quality Assessment

Gippsland Plain bioregion

EVC 127: Valley Heathy Forest

Description:
A low, open forest to 15 m tall with a sedgy/grassy understorey with a component of small ericoid shrubs and grass-trees. Soil and moisture factors are critical in delimiting the vegetation.

Large trees:

Species	DBH(cm)	#/ha
Eucalyptus spp.	70 cm	20 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
30%	*Eucalyptus melliodora*	Yellow Box
	Eucalyptus goniocalyx s.l.	Bundy
	Eucalyptus cephalocarpa s.l.	Silverleaf Stringybark
	Eucalyptus obliqua	Messmate Stringybark

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	7	15%	MS
Small Shrub	5	5%	SS
Prostrate Shrub	2	1%	PS
Medium Herb	6	10%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	2	5%	LTG
Large Non-tufted Graminoid	2	20%	LNG
Medium to Small Tufted Graminoid	7	15%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	1	1%	GF
Scrambler or Climber	3	5%	SC
Bryophytes/Lichens	na	10%	BL

Victoria The Place To Be

Rapid assessment proforma for Frankston Veg Study 2005

Adapted from DSE Veg Quality Field Assessment Sheet

Appendix 2. Pro-forma used to score vegetation quality (adapted from DSE Vegetation Quality Assessment Sheet).

EVC ……..

Site No. …… Location …… Tenure …… Date …..……

Assessor(s) ……AMG E:……..……N:……...Waypoints:……

% native veg in 100m radius:……..
Other landscape context features to be scored from aerials.
Approx. portion of site belonging to this EVC:……
Portion of site of this quality:……

Approx scores for low quality areas of site (where differ from those below): Large Trees:……
Canopy:……..
Understorey:……
Lack of Weeds:……
Recruitment:……
Litter:……
Logs:……

Notes:……
……
……
……
……
……
……
……
……
….

Scores for highest quality patch of reasonable size

Large Trees Score

Category & Description	Value % Canopy Health *		
	> 70%	30-70%	< 30%
None present	0	0	0
> 0 to <20% of the benchmark	3	2	1
≥ 20% to <40% of the benchmark	4	3	2
≥ 40% to <70% of the benchmark	6	5	4
≥ 70% to <100% of the benchmark	8	7	6
≥100% of the benchmark number of large trees/ha	10	9	8

Tree Canopy Cover Score

Category & Description	Value % Canopy Health *		
	> 70%	30-70%	< 30%
> 90% change from benchmark cover	0	0	0
50% - 90% change - benchmark cover	3	2	1
< 50% change in the benchmark cover	5	4	3

Logs Score

Category Description	Value*
< 10% of benchmark length	0
< 50% of expected length	3*
≥ 50% of expected length	5*

* subtract 1 if total length of large logs (≥ 0.5 of benchmark large tree dbh) < 25% EVC benchmark log length

Lack of Weeds Score

Category & Description	Value 'high threat' weeds*		
	None	≤ 50%	> 50%
> 50% cover of weeds	4	2	0
25 - 50% cover of weeds	7	6	4
5 - 25% cover of weeds	11	9	7
< 5% cover of weeds**	15	13	11

Weeds recorded (underline high threat weeds)
……
……
……
……
……
……

Organic Litter Score

Category Description	Value	
	≥ 50%*	< 50%*
< 10% of benchmark cover	0	0
10 - 50% or > 150% of expected cover	3	2
≥ 50% or ≤ 150% of expected cover	5	4

* % of litter cover due to native species

Rapid assessment proforma for Frankston Veg Study 2005

Adapted from DSE Veg Quality Field Assessment Sheet

Understorey Score

Category & Description		Value
All strata and lifeforms effectively absent		0
Up to 50% of lifeforms present		5
≥ 50% to 90% of lifeforms present and of those present:	≥ 50% substantially modified	10
	< 50% substantially modified	15
≥ 90% of lifeforms present and of those present:	≥ 50% substantially modified	15
	< 50% substantially modified	20
	none substantially modified	25

Understorey Lifeforms

LF Code from EVC benchmark	# spp / Benchmark spp.	%cover / Benchmark % cover	Present (√)	Modified (√)
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		
	/	/		

Indigenous species recorded – this patch only

Life form	Species

Species associated with other vegetation types not scored separately because of small size:

Recruitment Score

Category & Description			Value ≥ 50%*	Value < 50%*
No evidence of a recruitment 'cohort'+	within EVC not driven by episodic events		0	0
	within EVC driven by episodic events^	clear evidence of appropriate episodic event	0	0
		no clear evidence of appropriate episodic event	5	5
Clear evidence of at least one recruitment 'cohort' in at least one life-form	proportion of native woody species present that have adequate recruitment	< 30%	3	1
		30 - 70%	6	3
		≥ 70%	10	5

Species Recruitment

Woody species recorded	Adequate Recruitment (√)
Eucalypt canopy (combined species)	
# woody spp. in EVC benchmark (SS and taller)	

Appendix 3. Vascular plant species recorded from a search area based on the Frankston City Council municipality.

Data from Victorian Flora Database - FIS, Biodiversity and Natural Resources, DSE - May 2005 © Viridans Biological Databases

Letters preceding the scientific name indicate the conservation status of the species: National Significance: E = Endangered; R = Rare; Vul = Vulnerable; State significance: r = rare; v = vulnerable; k = insufficient data (DSE 2005).

An asterisk (*) denotes exotic species. A hash (#) denotes native species occurring outside their natural range.

FERNS AND ALLIES

Adiantaceae

Adiantum aethiopicum	Common Maidenhair
Cheilanthes austrotenuifolia	Green Rock-fern

Azollaceae

Azolla filiculoides	Pacific Azolla

Blechnaceae

Blechnum fluviatile	Ray Water-fern
Blechnum minus	Soft Water-fern
Blechnum nudum	Fishbone Water-fern
Blechnum wattsii	Hard Water-fern
Doodia australis	Common Rasp-fern

Culcitaceae

Calochlaena dubia	Common Ground-fern

Cyatheaceae

Cyathea australis	Rough Tree-fern

Dennstaedtiaceae

Hypolepis rugosula	Ruddy Ground-fern
Hypolepis spp.	Ground Fern
Pteridium esculentum	Austral Bracken

Dicksoniaceae

Dicksonia antarctica	Soft Tree-fern

Dryopteridaceae

Polystichum proliferum	Mother Shield-fern

Gleicheniaceae

Gleichenia dicarpa	Pouched Coral-fern
Gleichenia microphylla	Scrambling Coral-fern
Gleichenia spp.	Coral Fern

Isoetaceae

Isoetes drummondii	Plain Quillwort
Isoetes drummondii subsp. *drummondii*	Plain Quillwort

Lindsaeaceae

Lindsaea linearis	Screw Fern

Lycopodiaceae

Lycopodiella lateralis	Slender Clubmoss
Phylloglossum drummondii	Pygmy Clubmoss

Marsileaceae

#	*Marsilea mutica*	Smooth Nardoo
	Pilularia novae-hollandiae	Austral Pillwort

Pteridaceae

	Pteris tremula	Tender Brake

Schizaeaceae

	Schizaea asperula	Rough Comb-fern
	Schizaea bifida s.s.	Forked Comb-fern
	Schizaea fistulosa	Narrow Comb-fern

Selaginellaceae

	Selaginella gracillima	Tiny Selaginella
	Selaginella uliginosa	Swamp Selaginella

CONIFERS

Pinaceae

*	*Pinus nigra* var. *corsicana*	Corsican Pine
*	*Pinus pinaster*	Cluster Pine
*	*Pinus radiata*	Radiata Pine

MONOCOTYLEDONS

Agavaceae

*	*Agave americana*	Century Plant
*	*Cordyline australis*	New Zealand Cabbage-tree
	Yucca gloriosa	Palm Lily

Alismataceae

*	*Alisma lanceolata*	Water Plantain
	Alisma plantago-aquatica	Water Plantain

Alliaceae

*	*Agapanthus praecox* subsp. *orientalis*	Agapanthus
*	*Allium* spp.	Garlic
*	*Allium triquetrum*	Three-corner Garlic

Aloeaceae

*	*Aloe* spp.	Aloe
*	*Kniphofia* spp.	Kniphofia

Anthericaceae

	Arthropodium spp. (s.s.)	Vanilla Lily
	Arthropodium strictum s.l.	Chocolate Lily
	Chamaescilla corymbosa var. *corymbosa*	Blue Stars
	Laxmannia orientalis	Dwarf Wire-lily
	Thysanotus patersonii	Twining Fringe-lily
	Thysanotus tuberosus	Common Fringe-lily

Araceae

*	*Zantedeschia aethiopica*	White Arum-lily

Asparagaceae

*	*Asparagus aethiopicus*	Sprengeri Fern
*	*Asparagus asparagoides*	Bridal Creeper
*	*Asparagus officinalis*	Asparagus
*	*Asparagus scandens*	Asparagus Fern

Asphodelaceae

	Bulbine bulbosa	Bulbine Lily

Centrolepidaceae

	Aphelia gracilis	Slender Aphelia
	Aphelia pumilio	Dwarf Aphelia
	Centrolepis aristata	Pointed Centrolepis
	Centrolepis fascicularis	Tufted Centrolepis
	Centrolepis strigosa subsp. *strigosa*	Hairy Centrolepis

Colchicaceae

	Burchardia umbellata	Milkmaids
	Wurmbea dioica	Common Early Nancy

Commelinaceae

*	*Tradescantia fluminensis*	Wandering Jew

Cyperaceae

	Baumea acuta	Pale Twig-sedge
	Baumea arthrophylla	Fine Twig-sedge
	Baumea articulata	Jointed Twig-sedge
	Baumea gunnii	Slender Twig-sedge
	Baumea juncea	Bare Twig-sedge
	Baumea rubiginosa s.l.	Soft Twig-rush
	Baumea rubiginosa s.s.	Soft Twig-sedge
	Baumea spp.	Twig Sedge
	Baumea tetragona	Square Twig-sedge
	Bolboschoenus medianus	Marsh Club-sedge
	Carex appressa	Tall Sedge
	Carex breviculmis	Common Grass-sedge
	Carex fascicularis	Tassel Sedge
	Carex gaudichaudiana	Fen Sedge
	Carex inversa	Knob Sedge
	Carex tereticaulis	Poong'ort
k	*Chorizandra australis*	Southern Bristle-sedge
	Chorizandra cymbaria s.l.	Heron Bristle-sedge
	Chorizandra cymbaria s.s.	Heron Bristle-sedge
	Chorizandra spp.	Bristle Sedge
*	*Cyperus congestus*	Dense Flat-sedge
*	*Cyperus eragrostis*	Drain Flat-sedge
	Cyperus spp.	Flat Sedge
*	*Cyperus tenellus*	Tiny Flat-sedge
	Eleocharis acuta	Common Spike-sedge
k	*Eleocharis macbarronii*	Grey Spike-sedge
	Eleocharis sphacelata	Tall Spike-sedge
	Ficinia nodosa	Knobby Club-sedge
	Gahnia radula	Thatch Saw-sedge

	Gahnia sieberiana	Red-fruit Saw-sedge
	Gahnia trifida	Coast Saw-sedge
	Isolepis cernua var. *cernua*	Nodding Club-sedge
	Isolepis cernua var. *platycarpa*	Broad-fruit Club-sedge
	Isolepis fluitans	Floating Club-sedge
	Isolepis fluitans var. *fluitans*	Floating Club-sedge
	Isolepis fluitans var. *lenticularis*	Floating Club-sedge
	Isolepis hookeriana	Grassy Club-sedge
*	*Isolepis hystrix*	Awned Club-sedge
	Isolepis inundata	Swamp Club-sedge
	Isolepis marginata	Little Club-sedge
	Isolepis spp.	Club Sedge
	Isolepis stellata	Star Club-sedge
	Lepidosperma concavum	Sandhill Sword-sedge
	Lepidosperma congestum	Clustered Sword-sedge
	Lepidosperma curtisiae	Little Sword-sedge
	Lepidosperma elatius	Tall Sword-sedge
	Lepidosperma filiforme	Common Rapier-sedge
	Lepidosperma forsythii	Large-flower Rapier-sedge
	Lepidosperma gladiatum	Coast Sword-sedge
	Lepidosperma gunnii	Slender Sword-sedge
	Lepidosperma laterale	Variable Sword-sedge
	Lepidosperma laterale var. *laterale*	Variable Sword-sedge
	Lepidosperma laterale var. *majus*	Variable Sword-sedge
	Lepidosperma longitudinale	Pithy Sword-sedge
	Lepidosperma neesii	Stiff Rapier-sedge
	Lepidosperma semiteres	Wire Rapier-sedge
	Lepidosperma spp.	Sword Sedge
	Schoenus apogon	Common Bog-sedge
	Schoenus brevifolius	Zig-zag Bog-sedge
	Schoenus lepidosperma	Slender Bog-sedge
	Schoenus maschalinus	Leafy Bog-sedge
	Schoenus nitens	Shiny Bog-sedge
	Schoenus tesquorum	Soft Bog-sedge
	Tetraria capillaris	Hair Sedge

Hyacinthaceae

*	*Hyacinthoides non-scripta*	English Bluebell
*	*Lachenalia* spp.	Lachenalia

Hydrocharitaceae

*	*Egeria densa*	Dense Waterweed
	Vallisneria americana var. *americana*	Eel Grass
	Vallisneria spp.	Eel Grass

Hypoxidaceae

	Hypoxis glabella s.l.	Yellow star
	Hypoxis hygrometrica	Golden Weather-glass
	Hypoxis vaginata	Yellow Star

Iridaceae

*	*Chasmanthe floribunda*	African Cornflag
*	*Crocosmia X crocosmiiflora*	Montbretia

*	*Freesia alba x Freesia leichtlinii*	Freesia
*	*Freesia* spp.	Freesia
*	*Gladiolus* spp.	Gladiolus
*	*Gladiolus tristis*	Evening-flower Gladiolus
*	*Gladiolus undulatus*	Wild Gladiolus
	Iridaceae spp.	Irid
*	*Ixia polystachya*	Variable Ixia
*	*Ixia* spp.	Ixia
*	*Moraea flaccida*	One-leaf Cape-tulip
*	*Moraea* spp.	Moraea
	Patersonia fragilis	Short Purple-flag
	Patersonia occidentalis	Long Purple-flag
	Patersonia spp.	Purple Flag
*	*Romulea rosea*	Onion Grass
*	*Romulea rosea* var. *australis s.s.*	Common Onion-grass
*	*Sisyrinchium iridifolium*	Blue Pigroot
*	*Watsonia meriana* var. *bulbillifera*	Bulbil Watsonia
*	*Watsonia* spp.	Watsonia
*	*Watsonia versfeldii*	Watsonia

Juncaceae

*	*Juncus acutus* subsp. *acutus*	Sharp Rush
	Juncus amabilis	Hollow Rush
*	*Juncus articulatus*	Jointed Rush
	Juncus australis	Austral Rush
	Juncus bufonius	Toad Rush
*	*Juncus bulbosus*	Bulbous Rush
	Juncus caespiticius	Grassy Rush
*	*Juncus capitatus*	Capitate Rush
	Juncus flavidus	Gold Rush
	Juncus gregiflorus	Green Rush
	Juncus holoschoenus	Joint-leaf Rush
	Juncus homalocaulis	Wiry Rush
	Juncus kraussii subsp. *australiensis*	Sea Rush
*	*Juncus microcephalus*	Tiny-headed Rush
	Juncus pallidus	Pale Rush
	Juncus pauciflorus	Loose-flower Rush
	Juncus planifolius	Broad-leaf Rush
	Juncus procerus	Tall Rush
	Juncus sarophorus	Broom Rush
	Juncus spp.	Rush
	Juncus subsecundus	Finger Rush
	Luzula campestris spp. agg.	Field Woodrush
	Luzula meridionalis	Common Woodrush
	Luzula meridionalis var. *densiflora*	Common Woodrush
	Luzula meridionalis var. *flaccida*	Common Woodrush
	Luzula meridionalis var. *meridionalis*	Common Woodrush

Juncaginaceae

Triglochin alcockiae	Southern Water-ribbons
Triglochin procera s.l.	Water Ribbons
Triglochin striata	Streaked Arrowgrass

Lemnaceae

	Landoltia punctata	Thin Duckweed
	Lemna disperma	Common Duckweed

Liliaceae

*	*Spiloxene capensis*	Spiloxene

Orchidaceae

	Acianthus caudatus	Mayfly Orchid
	Acianthus exsertus s.l.	Gnat Orchid
	Acianthus pusillus	Small Mosquito-orchid
	Acianthus spp.	Mosquito Orchid
r	*Burnettia cuneata*	Lizard Orchid
	Caladenia carnea s.s.	Pink Fingers
	Caladenia carnea	Pink Fingers
	Caladenia clavigera	Plain-lip Spider-orchid
	Caladenia dilatata s.l.	Green-comb Spider-orchid
k	*Caladenia dilatata s.s.*	Green-comb Spider-orchid
	Caladenia gracilis	Musk Hood
	Caladenia latifolia	Pink Fairies
	Caladenia patersonii s.l.	Common Spider-orchid
	Caladenia phaeoclavia	Brown-clubbed Spider-orchid
	Caladenia pusilla	Tiny Pink-fingers
Ee	*Caladenia robinsonii*	Frankston Spider-orchid
	Caladenia spp.	Caladenia
	Caladenia tentaculata	Mantis Orchid
	Caladenia transitoria	Eastern Bronzehood
	Caleana major	Large Duck-orchid
	Calochilus robertsonii	Purple Beard-orchid
	Chiloglottis gunnii s.l.	Common Bird-orchid
	Chiloglottis reflexa	Autumn Wasp-orchid
	Chiloglottis trapeziformis	Dainty Wasp-orchid
	Chiloglottis valida	Common Bird-orchid
r	*Chiloglottis X pescottiana*	Bronze Bird-orchid
	Corunastylis morrisii	Bearded Midge-orchid
	Corybas diemenicus	Veined Helmet-orchid
r	*Corybas fimbriatus*	Fringed Helmet-orchid
	Corybas incurvus	Slaty Helmet-orchid
	Corybas spp.	Helmet Orchid
	Cryptostylis leptochila	Small Tongue-orchid
	Cryptostylis subulata	Large Tongue-orchid
	Cyrtostylis reniformis	Small Gnat-orchid
	Cyrtostylis robusta	Large Gnat-orchid
	Dipodium punctatum s.l.	Hyacinth Orchid
	Dipodium roseum s.l.	Rosy Hyacinth-orchid
	Dipodium roseum s.s.	Rosy Hyacinth-orchid
	Diuris lanceolata s.l.	Golden Moths
	Diuris orientis	Wallflower Orchid
	Diuris pardina	Leopard Orchid
v	*Diuris punctata* var. *punctata*	Purple Diuris
	Diuris sulphurea	Tiger Orchid
	Eriochilus cucullatus	Parson's Bands

	Gastrodia sesamoides s.l.	Cinnamon Bells
	Glossodia major	Wax-lip Orchid
	Leporella fimbriata	Fringed Hare-orchid
	Leptoceras menziesii	Hare Orchid
	Lyperanthus suaveolens	Brown-beaks
	Microtidium atratum	Yellow Onion-orchid
	Microtis arenaria	Notched Onion-orchid
	Microtis parviflora	Slender Onion-orchid
	Microtis rara	Sweet Onion-orchid
	Microtis spp.	Onion Orchid
	Microtis unifolia	Common Onion-orchid
	Orthoceras strictum	Horned Orchid
	Pheladenia deformis	Bluebeard Orchid
	Prasophyllum elatum	Tall Leek-orchid
v	*Prasophyllum lindleyanum*	Green Leek-orchid
	Prasophyllum spp.	Leek Orchid
	Pterostylis concinna	Trim Greenhood
	Pterostylis curta	Blunt Greenhood
	Pterostylis longifolia s.l.	Tall Greenhood
	Pterostylis melagramma	Tall Greenhood
	Pterostylis nana	Dwarf Greenhood
	Pterostylis nutans	Nodding Greenhood
	Pterostylis parviflora s.l.	Tiny Greenhood
v	*Pterostylis pedoglossa*	Prawn Greenhood
	Pterostylis pedunculata	Maroonhood
	Pterostylis sanguinea	Banded Greenhood
	Pterostylis spp.	Greenhood
v	*Pterostylis X toveyana*	Mentone Greenhood
	Pyrorchis nigricans	Red-beaks
	Spiranthes australis	Austral Ladies' Tresses
	Thelymitra antennifera	Rabbit Ears
	Thelymitra aristata	Great Sun-orchid
	Thelymitra carnea	Pink Sun-orchid
	Thelymitra flexuosa	Twisted Sun-orchid
	Thelymitra ixioides s.l.	Spotted Sun-orchid
	Thelymitra nuda	Plain Sun-orchid
	Thelymitra pauciflora s.l.	Slender Sun-orchid
	Thelymitra rubra	Salmon Sun-orchid
	Thelymitra sp. aff. holmesii (Terminal hair tufts)	Trim Sun-orchid
	Thelymitra spp.	Sun Orchid
	Thynninorchis huntianus	Elbow Orchid

Phormiaceae

Caesia calliantha	Blue Grass-lily
Caesia parviflora	Pale Grass-lily
Dianella brevicaulis	Small-flower Flax-lily
Dianella caerulea s.l.	Paroo Lily
Dianella longifolia s.l.	Pale Flax-lily
Dianella longifolia var. *longifolia s.l.*	Pale Flax-lily
Dianella revoluta s.l.	Black-anther Flax-lily
Dianella revoluta var. *revoluta s.l.*	Black-anther Flax-lily
Dianella tasmanica	Tasman Flax-lily

	Thelionema caespitosum	Tufted Lily
	Tricoryne elatior	Yellow Rush-lily

Poaceae

*	*Agrostis capillaris s.l.*	Brown-top Bent
*	*Agrostis capillaris s.s.*	Brown-top Bent
*	*Agrostis castellana*	Dryland Brown-top
*	*Agrostis gigantea*	Red-top Bent
	Agrostis s.l. spp.	Bent/Blown Grass
*	*Aira caryophyllea*	Silvery Hair-grass
*	*Aira cupaniana*	Quicksilver Grass
*	*Aira elegantissima*	Delicate Hair-grass
*	*Aira praecox*	Early Hair-grass
*	*Aira* spp.	Hair Grass
*	*Ammophila arenaria*	Marram Grass
	Amphibromus archeri	Pointed Swamp Wallaby-grass
	Amphibromus macrorhinus	*L*ong-nosed Swamp Wallaby-grass
	Amphibromus neesii	Southern Swamp Wallaby-grass
	Amphibromus nervosus	Common Swamp Wallaby-grass
	Amphibromus spp.	Swamp Wallaby-grass
*	*Anthoxanthum odoratum*	Sweet Vernal-grass
	Austrodanthonia caespitosa	Common Wallaby-grass
	Austrodanthonia duttoniana	Brown-back Wallaby-grass
	Austrodanthonia eriantha	Hill Wallaby-grass
	Austrodanthonia fulva	Copper-awned Wallaby-grass
	Austrodanthonia geniculata	Kneed Wallaby-grass
	Austrodanthonia induta	Shiny Wallaby-grass
	Austrodanthonia laevis	Smooth Wallaby-grass
	Austrodanthonia penicillata	Slender Wallaby-grass
	Austrodanthonia pilosa	Velvet Wallaby-grass
	Austrodanthonia racemosa var. *racemosa*	Stiped Wallaby-grass
	Austrodanthonia setacea	Bristly Wallaby-grass
	Austrodanthonia setacea var. *setacea*	Bristly Wallaby-grass
	Austrodanthonia spp.	Wallaby Grass
	Austrodanthonia tenuior	Purplish Wallaby-grass
	Austrofestuca hookeriana	Hooker Fescue
r	*Austrofestuca littoralis*	Coast Fescue
	Austrostipa elegantissima	Feather Spear-grass
	Austrostipa flavescens	Coast Spear-grass
	Austrostipa mollis	Supple Spear-grass
	Austrostipa pubinodis	Tall Spear-grass
	Austrostipa rudis	Veined Spear-grass
	Austrostipa rudis subsp. *rudis*	Veined Spear-grass
	Austrostipa scabra subsp. *falcata*	Rough Spear-grass
	Austrostipa semibarbata	Fibrous Spear-grass
	Austrostipa spp.	Spear Grass
	Austrostipa stipoides	Prickly Spear-grass
	Austrostipa stuposa	Quizzical Spear-grass
*	*Avena barbata*	Bearded Oat
*	*Avena fatua*	Wild Oat
*	*Avena* spp.	Oat
*	*Bambusa* spp.	Bamboo

*	*Briza maxima*	Large Quaking-grass
*	*Briza minor*	Lesser Quaking-grass
*	*Briza* spp.	Quaking Grass
*	*Bromus catharticus*	Prairie Grass
*	*Bromus diandrus*	Great Brome
*	*Bromus hordeaceus* subsp. *hordeaceus*	Soft Brome
	Bromus spp.	Brome
*	*Cortaderia selloana*	Pampas Grass
	Cynodon dactylon	Couch
*	*Cynodon dactylon* var. *dactylon*	Couch
*	*Cynosurus echinatus*	Rough Dog's-tail
*	*Dactylis glomerata*	Cocksfoot
*	*Danthonia decumbens*	Heath Grass
	Danthonia s.l. spp.	Wallaby Grass
	Deyeuxia densa	Heath Bent-grass
	Deyeuxia quadriseta	Reed Bent-grass
	Deyeuxia spp.	Bent-grass
#	*Dichanthium sericeum* subsp. *sericeum*	Silky Blue-grass
	Dichelachne crinita	Long-hair Plume-grass
	Dichelachne rara	Common Plume-grass
	Dichelachne sciurea spp. agg.	Short-hair Plume-grass
	Dichelachne sieberiana	Rough Plume-grass
*	*Digitaria sanguinalis*	Summer Grass
	Distichlis distichophylla	Australian Salt-grass
*	*Echinochloa muricata* var. *microstachya*	Prickly Barnyard-grass
*	*Ehrharta calycina*	Perennial Veldt-grass
*	*Ehrharta erecta* var. *erecta*	Panic Veldt-grass
*	*Ehrharta longiflora*	Annual Veldt-grass
*	*Eleusine indica*	Goose-grass
	Elymus scaber var. *scaber*	Common Wheat-grass
	Entolasia marginata	Bordered Panic
k	*Entolasia stricta*	Upright Panic
	Eragrostis brownii	Common Love-grass
*	*Eragrostis curvula*	African Love-grass
*	*Eragrostis pilosa*	Soft Love-grass
*	*Festuca arundinacea*	Tall Fescue
	Glyceria australis	Australian Sweet-grass
	Glyceria spp.	Sweet Grass
	Hemarthria uncinata var. *uncinata*	Mat Grass
*	*Holcus lanatus*	Yorkshire Fog
*	*Hordeum leporinum*	Barley-grass
*	*Hordeum vulgare s.l.*	Barley
	Imperata cylindrica	Blady Grass
	Joycea lepidopoda	Scaly-foot Wallaby-grass
	Joycea pallida	Silvertop Wallaby-grass
	Lachnagrostis aemula s.l.	Leafy Blown-grass
	Lachnagrostis billardierei s.l.	Coast Blown-grass
	Lachnagrostis filiformis	Common Blown-grass
	Lachnagrostis filiformis var. *1*	Common Blown-grass
k	*Lachnagrostis filiformis* var. *2*	Wetland Blown-grass
r	*Lachnagrostis punicea* subsp. *filifolia*	Purple Blown-grass
*	*Lagurus ovatus*	Hare's-tail Grass

*	*Lamarckia aurea*	Golden-top
*	*Lolium perenne*	Perennial Rye-grass
*	*Lolium rigidum*	Wimmera Rye-grass
*	*Lolium* spp.	Rye Grass
*	*Lolium temulentum*	Darnel
*	*Lophopyrum ponticum*	Tall Wheat-grass
	Microlaena stipoides var. *stipoides*	Weeping Grass
	Notodanthonia semiannularis	Wetland Wallaby-grass
*	*Parapholis incurva*	Coast Barb-grass
*	*Parapholis strigosa*	Slender Barb-grass
*	*Paspalum dilatatum*	Paspalum
*	*Paspalum distichum*	Water Couch
*	*Paspalum* spp.	Paspalum
*	*Pennisetum clandestinum*	Kikuyu
*	*Pennisetum macrourum*	African Feather-grass
	Pentapogon quadrifidus var. *quadrifidus*	Five-awned Spear-grass
*	*Phalaris aquatica*	Toowoomba Canary-grass
*	*Phalaris arundinacea*	Reed Canary-grass
*	*Phalaris minor*	Lesser Canary-grass
*	*Phalaris* spp.	Canary Grass
	Phragmites australis	Common Reed
*	*Poa annua*	Annual Meadow-grass
	Poa australis spp. agg.	Tussock Grass
	Poa clelandii	Noah's Ark
	Poa ensiformis	Sword Tussock-grass
	Poa labillardierei	Common Tussock-grass
k	*Poa labillardierei* var. *(Volcanic Plains)*	Basalt Tussock-grass
	Poa morrisii	Soft Tussock-grass
	Poa poiformis	Coast Tussock-grass
*	*Poa pratensis*	Kentucky Blue-grass
	Poa rodwayi	Velvet Tussock-grass
	Poa sieberiana	Grey Tussock-grass
	Poa sieberiana var. *sieberiana*	Grey Tussock-grass
	Poa spp.	Tussock Grass
	Poa tenera	Slender Tussock-grass
	Poaceae spp.	Grass
*	*Polypogon maritimus* var. *subspathaceus*	Coast Beard-grass
*	*Polypogon monspeliensis*	Annual Beard-grass
*	*Puccinellia fasciculata*	Borrer's Saltmarsh-grass
*	*Secale cereale* subsp. *cereale*	Rye
*	*Setaria parviflora*	Slender Pigeon Grass
*	*Setaria spp. (naturalised)*	Pigeon Grass
	Spinifex sericeus	Hairy Spinifex
*	*Sporobolus africanus*	Rat-tail Grass
	Sporobolus virginicus	Salt Couch
*	*Stenotaphrum secundatum*	Buffalo Grass
	Tetrarrhena acuminata	Pointed Rice-grass
	Tetrarrhena distichophylla	Hairy Rice-grass
	Tetrarrhena juncea	Forest Wire-grass
	Themeda triandra	Kangaroo Grass
*	*Thinopyrum junceiforme*	Sea Wheat-grass
*	*Vulpia bromoides*	Squirrel-tail Fescue

*	*Vulpia fasciculata*	Dune Fescue
*	*Vulpia myuros*	Rat's-tail Fescue
*	*Vulpia myuros f. myuros*	Rat's-tail Fescue
*	*Vulpia* spp.	Fescue

Pontederiaceae

*	*Eichhornia crassipes*	Water Hyacinth

Potamogetonaceae

	Potamogeton cheesemanii	Red Pondweed
	Potamogeton tricarinatus s.l.	Floating Pondweed

Restionaceae

	Apodasmia brownii	Coarse Twine-rush
	Baloskion tetraphyllum subsp. *tetraphyllum*	Tassel Cord-rush
	Empodisma minus	Spreading Rope-rush
	Hypolaena fastigiata	Tassel Rope-rush
	Lepyrodia muelleri	Common Scale-rush

Typhaceae

	Typha domingensis	Narrow-leaf Cumbungi
*	*Typha latifolia*	Lesser Reed-mace
	Typha orientalis	Broad-leaf Cumbungi
	Typha spp.	Bulrush

Xanthorrhoeaceae

	Lomandra filiformis	Wattle Mat-rush
	Lomandra filiformis subsp. *coriacea*	Wattle Mat-rush
	Lomandra filiformis subsp. *filiformis*	Wattle Mat-rush
	Lomandra longifolia	Spiny-headed Mat-rush
	Lomandra longifolia subsp. *exilis*	Cluster-headed Mat-rush
	Lomandra longifolia subsp. *longifolia*	Spiny-headed Mat-rush
	Lomandra micrantha s.l.	Small-flower Mat-rush
	Lomandra multiflora subsp. *multiflora*	Many-flowered Mat-rush
	Lomandra spp.	Mat-rush
	Xanthorrhoea minor subsp. *lutea*	Small Grass-tree

Xyridaceae

	Xyris gracilis	Slender Yellow-eye
	Xyris operculata	Tall Yellow-eye

Zosteraceae

	Zostera capricorni	Dwarf Grass-wrack

DICOTYLEDONS

Aizoaceae

*	*Carpobrotus aequilaterus*	Angled Pigface
*	*Carpobrotus edulis*	Hottentot Fig
	Carpobrotus rossii	Karkalla
	Carpobrotus spp.	Pigface
	Disphyma crassifolium subsp. *clavellatum*	Rounded Noon-flower
*	*Galenia pubescens* var. *pubescens*	Galenia
*	*Ruschia geminiflora*	Loose-flower Pigface

	Tetragonia implexicoma	Bower Spinach

Amaranthaceae

	Alternanthera denticulata s.l.	Lesser Joyweed
*	*Alternanthera philoxeroides*	Alligator Weed

Apiaceae

*	*Actinotus helianthi*	Flannel Flower
	Apium annuum	Annual Celery
*	*Apium graveolens*	Celery
	Apium prostratum subsp. *prostratum*	Sea Celery
	Centella cordifolia	Centella
*	*Daucus carota*	Carrot
	Eryngium vesiculosum	Prickfoot
*	*Foeniculum vulgare*	Fennel
	Hydrocotyle callicarpa	Small Pennywort
	Hydrocotyle foveolata	Yellow Pennywort
	Hydrocotyle hirta	Hairy Pennywort
	Hydrocotyle laxiflora	Stinking Pennywort
	Hydrocotyle medicaginoides	Trefoil Pennywort
	Hydrocotyle pterocarpa	Wing Pennywort
	Hydrocotyle sibthorpioides	Shining Pennywort
	Hydrocotyle spp.	Pennywort
	Lilaeopsis polyantha	Australian Lilaeopsis
	Platysace heterophylla var. *heterophylla*	Slender Platysace
	Trachymene composita var. *composita*	Parsnip Trachymene
	Xanthosia dissecta s.l.	Cut-leaf Xanthosia
	Xanthosia huegelii	Heath Xanthosia
	Xanthosia pilosa	Woolly Xanthosia
	Xanthosia pusilla spp. agg.	Heath Xanthosia
	Xanthosia tridentata	Hill Xanthosia

Apocynaceae

	Alyxia buxifolia	Sea Box
*	*Vinca major*	Blue Periwinkle

Aquifoliaceae

*	*Ilex aquifolium*	English Holly

Araliaceae

*	*Hedera helix*	English Ivy
	Polyscias sambucifolia	Elderberry Panax

Asteraceae

	Actites megalocarpa	Dune Thistle
*	*Arctotheca calendula*	Cape Weed
*	*Argyranthemum frutescens* subsp. *foeniculaceum*	Tenerife Daisy
*	*Artemisia* spp.	Wormwood
*	*Aster subulatus*	Aster-weed
	Brachyscome cardiocarpa	Swamp Daisy
	Brachyscome ciliaris	Variable Daisy
	Brachyscome parvula	Coast Daisy
	Brachyscome parvula var. *parvula*	Coast Daisy
	Cassinia aculeata	Common Cassinia

	Cassinia arcuata	Drooping Cassinia
	Cassinia longifolia	Shiny Cassinia
	Cassinia spp.	Cassinia
*	*Centaurea melitensis*	Malta Thistle
	Centipeda minima s.l.	Spreading Sneezeweed
*	*Chrysanthemoides monilifera*	Boneseed
*	*Chrysanthemoides monilifera* subsp. *monilifera*	African Boneseed
	Chrysocephalum apiculatum s.l.	Common Everlasting
	Chrysocephalum apiculatum s.s.	Common Everlasting
*	*Cirsium vulgare*	Spear Thistle
*	*Conyza bilbaoana*	Smooth Fleabane
*	*Conyza bonariensis*	Flaxleaf Fleabane
*	*Conyza* spp.	Fleabane
*	*Conyza sumatrensis*	Tall Fleabane
	Cotula australis	Common Cotula
*	*Cotula bipinnata*	Ferny Cotula
*	*Cotula coronopifolia*	Water Buttons
*	*Delairea odorata*	Cape Ivy
*	*Dittrichia graveolens*	Stinkwort
	Euchiton collinus s.l.	Clustered/Creeping Cudweed
	Euchiton collinus s.s.	Creeping Cudweed
	Euchiton involucratus s.l.	Common Cudweed
	Euchiton involucratus s.s.	Star Cudweed
	Euchiton sphaericus	Annual Cudweed
	Euchiton spp.	Cudweed
*	*Euryops abrotanifolius*	Winter Euryops
*	*Galinsoga parviflora*	Gallant Soldier
*	*Gamochaeta calviceps*	Silky Cudweed
*	*Gamochaeta purpurea s.l.*	Purple Cudweed
*	*Gamochaeta purpurea s.s.*	Spiked Cudweed
*	*Gamochaeta* spp.	American Cudweed
*	*Gazania linearis*	Gazania
*	*Gazania* spp.	Gazania
	Gnaphalium indutum	Tiny Cudweed
	Gnaphalium spp.	Cudweed
v	*Helichrysum aff. rutidolepis* (Lowland Swamps)	Pale Swamp Everlasting
	Helichrysum scorpioides	Button Everlasting
	Helichrysum spp.	Everlasting
*	*Helminthotheca echioides*	Ox-tongue
*	*Hypochoeris glabra*	Smooth Cat's-ear
*	*Hypochoeris radicata*	Cat's Ear
*	*Lactuca saligna*	Willow-leaf Lettuce
*	*Lactuca serriola*	Prickly Lettuce
	Lagenophora gracilis	Slender Bottle-daisy
	Lagenophora stipitata	Common Bottle-daisy
*	*Leontodon taraxacoides* subsp. *taraxacoides*	Hairy Hawkbit
	Leptinella reptans s.l.	Creeping Cotula
	Leptorhynchos tenuifolius	Wiry Buttons
	Leucophyta brownii	Cushion Bush
	Olearia axillaris	Coast Daisy-Bush
	Olearia glandulosa	Swamp Daisy-bush
	Olearia glutinosa	Sticky Daisy-bush

	Olearia lirata	Snowy Daisy-bush
	Olearia ramulosa	Twiggy Daisy-bush
	Olearia ramulosa var. *ramulosa*	Twiggy Daisy-bush
	Olearia spp.	Daisy Bush
	Ozothamnus ferrugineus	Tree Everlasting
	Ozothamnus obcordatus	Grey Everlasting
	Ozothamnus rosmarinifolius	Rosemary Everlasting
	Ozothamnus turbinatus	Coast Everlasting
	Pseudognaphalium luteoalbum	Jersey Cudweed
*	*Senecio angulatus*	Climbing Groundsel
	Senecio biserratus	Jagged Fireweed
	Senecio glomeratus	Annual Fireweed
	Senecio hispidulus s.l.	Rough Fireweed
*	*Senecio jacobaea*	Ragwort
	Senecio minimus	Shrubby Fireweed
	Senecio pinnatifolius	Variable Groundsel
	Senecio prenanthoides	Beaked Fireweed
V v	*Senecio psilocarpus*	Swamp Fireweed
	Senecio quadridentatus	Cotton Fireweed
	Senecio spp.	Groundsel
	Senecio tenuiflorus s.l.	Slender Fireweed
	Senecio tenuiflorus s.s.	Slender Fireweed
*	*Senecio vulgaris*	Common Groundsel
	Solenogyne dominii	Smooth Solenogyne
	Solenogyne gunnii	Hairy Solenogyne
*	*Soliva* spp.	Jo Jo
*	*Sonchus asper s.l.*	Rough Sow-thistle
*	*Sonchus asper s.s.*	Rough Sow-thistle
*	*Sonchus oleraceus*	Common Sow-thistle
	Stuartina muelleri	Spoon Cudweed
*	*Taraxacum officinale spp.* agg.	Garden Dandelion
	Taraxacum spp.	Dandelion
*	*Tragopogon porrifolius*	Salsify
*	*Vellereophyton dealbatum*	White Cudweed
	Xerochrysum bracteatum	Golden Everlasting

Betulaceae

*	*Betula aff. pubescens*	Birch

Bignoniaceae

	Pandorea pandorana	Wonga Vine

Boraginaceae

	Cynoglossum suaveolens	Sweet Hound's-tongue
*	*Echium plantagineum*	Paterson's Curse
	Myosotis spp.	Forget-me-not
*	*Myosotis sylvatica*	Wood Forget-me-not

Brassicaceae

*	*Brassica fruticulosa*	Twiggy Turnip
*	*Cakile maritima* ssp. *maritima*	Sea Rocket
*	*Capsella bursa-pastoris*	Shepherd's Purse
*	*Cardamine hirsuta s.l.*	Common Bitter-cress

*	*Diplotaxis tenuifolia*	Sand Rocket
	Hymenolobus procumbens	Oval Purse
*	*Nasturtium microphyllum*	Brown Watercress
*	*Nasturtium officinale*	Watercress
*	*Raphanus raphanistrum*	Wild Radish
*	*Rapistrum rugosum*	Giant Mustard

Brunoniaceae

	Brunonia australis	Blue Pincushion

Cactaceae

*	*Austrocylindropuntia cylindrica*	Cane Cactus

Caesalpiniaceae

*	*Senna multiglandulosa*	Downy Senna

Callitrichaceae

*	*Callitriche stagnalis*	Common Starwort

Campanulaceae

	Isotoma fluviatilis subsp. *australis*	Swamp Isotome
	Lobelia anceps	Angled Lobelia
	Lobelia pratioides	Poison Lobelia
	Lobelia spp.	Lobelia
	Wahlenbergia gracilenta s.l.	Annual Bluebell
	Wahlenbergia gracilis	Sprawling Bluebell
	Wahlenbergia gymnoclada	Naked Bluebell
	Wahlenbergia multicaulis	Branching Bluebell
	Wahlenbergia spp.	Bluebell
	Wahlenbergia stricta subsp. *stricta*	Tall Bluebell

Caprifoliaceae

*	*Lonicera japonica*	Japanese Honeysuckle
*	*Viburnum tinus*	Laurestinus

Caryophyllaceae

*	*Arenaria leptoclados*	Lesser Thyme-leaved Sandwort
	Caryophyllaceae spp.	Chickweed
*	*Cerastium diffusum*	Sea Mouse-ear Chickweed
*	*Cerastium glomeratum s.l.*	Common Mouse-ear Chickweed
*	*Cerastium glomeratum s.s.*	Sticky Mouse-ear Chickweed
*	*Cerastium* spp.	Mouse-ear Chickweed
*	*Moenchia erecta*	Erect Chickweed
*	*Polycarpon tetraphyllum*	Four-leaved Allseed
*	*Sagina apetala*	Common Pearlwort
*	*Silene gallica*	French Catchfly
*	*Silene* spp.	Catchfly
*	*Spergula arvensis*	Corn Spurrey
*	*Spergula pentandra*	Five-stamen Corn-spurrey
*	*Spergularia rubra s.s.*	Red Sand-spurrey
*	*Stellaria media*	Chickweed

Casuarinaceae

	Allocasuarina littoralis	Black Sheoak

	Allocasuarina misera/paradoxa	Slender/Green Sheoak
	Allocasuarina paludosa	Scrub Sheoak
	Allocasuarina paradoxa	Green Sheoak
	Allocasuarina verticillata	Drooping Sheoak
	Casuarina spp.	Sheoak

Chenopodiaceae

	Atriplex cinerea	Coast Saltbush
*	*Atriplex prostrata*	Hastate Orache
	Atriplex semibaccata	Berry Saltbush
*	*Chenopodium album*	Fat Hen
	Chenopodium glaucum	Glaucous Goosefoot
	Chenopodium pumilio	Clammy Goosefoot
	Einadia hastata	Saloop
	Enchylaena tomentosa var. *tomentosa*	Ruby Saltbush
	Rhagodia candolleana subsp. *candolleana*	Seaberry Saltbush
	Sarcocornia quinqueflora	Beaded Glasswort
	Sarcocornia spp.	Glasswort
	Suaeda australis	Austral Seablite
	Threlkeldia diffusa	Coast Bonefruit

Clusiaceae

	Hypericum gramineum	Small St John's Wort
	Hypericum japonicum	Matted St John's Wort
*	*Hypericum perforatum* subsp. *veronense*	St John's Wort
*	*Hypericum tetrapterum*	St Peter's Wort

Convolvulaceae

	Calystegia sepium subsp. *roseata*	Large Bindweed
	Dichondra repens	Kidney-weed

Crassulaceae

*	*Bryophyllum delagoense*	Mother of Millions
*	*Cotyledon orbiculata*	Pig's Ear
*	*Crassula alata* var. *alata*	Three-part Crassula
	Crassula closiana	Stalked Crassula
	Crassula colorata var. *acuminata*	Dense Crassula
	Crassula decumbens var. *decumbens*	Spreading Crassula
	Crassula helmsii	Swamp Crassula
*	*Crassula multicava* subsp. *multicava*	Shade Crassula
*	*Crassula natans* var. *minus*	Water Crassula
	Crassula peduncularis	Purple Crassula
	Crassula sieberiana s.l.	Sieber Crassula
	Crassula spp.	Crassula
	Crassula tetramera	Australian Stonecrop
*	*Sedum praealtum* subsp. *praealtum*	Shrubby Stonecrop

Cunoniaceae

	Bauera rubioides	Wiry Bauera

Dilleniaceae

	Hibbertia acicularis	Prickly Guinea-flower
	Hibbertia fasciculata var. *prostrata*	Bundled Guinea-flower
	Hibbertia riparia	Erect Guinea-flower

Hibbertia sericea s.l.	Silky Guinea-flower
Hibbertia sericea s.s.	Silky Guinea-flower
Hibbertia stricta s.l.	Upright Guinea-flower

Droseraceae

Drosera binata	Forked Sundew
Drosera glanduligera	Scarlet Sundew
Drosera macrantha	Climbing Sundew
Drosera peltata	Pale Sundew
Drosera peltata subsp. *auriculata*	Tall Sundew
Drosera peltata subsp. *peltata*	Pale Sundew
Drosera pygmaea	Tiny Sundew
Drosera spatulata	Rosy Sundew
Drosera spp.	Sundew
Drosera whittakeri subsp. *aberrans*	Scented Sundew

Elatinaceae

Elatine gratioloides	Waterwort

Epacridaceae

Acrotriche prostrata	Trailing Ground-berry
Acrotriche serrulata	Honey-pots
Astroloma humifusum	Cranberry Heath
Brachyloma ciliatum	Fringed Brachyloma
Epacris impressa	Common Heath
Epacris obtusifolia	Blunt-leaf Heath
Leucopogon australis	Spike Beard-heath
Leucopogon ericoides	Pink Beard-heath
Leucopogon parviflorus	Coast Beard-heath
Leucopogon virgatus	Common Beard-heath
Leucopogon virgatus var. *virgatus*	Common Beard-heath
Monotoca scoparia	Prickly Broom-heath
Sprengelia incarnata	Pink Swamp-heath

Ericaceae

*	*Erica baccans*	Berry-flower Heath
*	*Erica lusitanica*	Spanish Heath
*	*Erica quadrangularis*	Angled Heath

Euphorbiaceae

	Amperea xiphoclada var. *xiphoclada*	Broom Spurge
*	*Euphorbia peplus*	Petty Spurge
	Poranthera microphylla	Small Poranthera
	Ricinocarpos pinifolius	Wedding Bush

Fabaceae

	Aotus ericoides	Common Aotus
	Bossiaea cinerea	Showy Bossiaea
	Bossiaea prostrata	Creeping Bossiaea
*	*Callistachys lanceolata*	Greenbush
*	*Chamaecytisus palmensis*	Tree Lucerne
*	*Cytisus scoparius*	English Broom
	Daviesia latifolia	Hop Bitter-pea
	Daviesia leptophylla	Narrow-leaf Bitter-pea

	Dillwynia cinerascens s.l.	Grey Parrot-pea
	Dillwynia cinerascens s.s.	Grey Parrot-pea
	Dillwynia glaberrima	Smooth Parrot-pea
	Dillwynia sericea	Showy Parrot-pea
	Dillwynia spp.	Parrot Pea
*	*Dipogon lignosus*	Common Dipogon
*	*Genista linifolia*	Flax-leaf Broom
*	*Genista monspessulana*	Montpellier Broom
*	*Genista X spachiana*	Madeira Broom
	Glycine clandestina	Twining Glycine
	Goodia lotifolia var. *lotifolia*	Common Golden-tip
#	*Hardenbergia violacea*	Purple Coral-pea
	Hovea heterophylla	Common Hovea
	Indigofera australis	Austral Indigo
	Kennedia prostrata	Running Postman
#	*Kennedia rubicunda*	Dusky Coral-pea
*	*Lotus angustissimus*	Slender Bird's-foot Trefoil
*	*Lotus corniculatus*	Bird's-foot Trefoil
*	*Lotus spp. (naturalised)*	Trefoil
*	*Lotus subbiflorus*	Hairy Bird's-foot Trefoil
*	*Medicago polymorpha*	Burr Medic
*	*Medicago sativa* subsp. *sativa*	Lucerne
*	*Medicago* spp.	Medic
*	*Melilotus indicus*	Sweet Melilot
*	*Ornithopus compressus*	Yellow Serradella
*	*Ornithopus pinnatus*	Sand Bird's-foot
	Platylobium formosum	Handsome Flat-pea
	Platylobium obtusangulum	Common Flat-pea
*	*Podalyria sericea*	Silky Podalyria
	Pultenaea dentata	Clustered Bush-pea
	Pultenaea gunnii	Golden Bush-pea
	Pultenaea sericea	Chaffy Bush-pea
	Pultenaea stricta	Rigid Bush-pea
	Sphaerolobium minus	Eastern Globe-pea
	Sphaerolobium vimineum	Leafless Globe-pea
	Swainsona lessertiifolia	Coast Swainson-pea
*	*Trifolium angustifolium* var. *angustifolium*	Narrow-leaf Clover
*	*Trifolium cernuum*	Drooping-flower Clover
*	*Trifolium dubium*	Suckling Clover
*	*Trifolium fragiferum* var. *fragiferum*	Strawberry Clover
*	*Trifolium glomeratum*	Cluster Clover
*	*Trifolium incarnatum* var. *incarnatum*	Crimson Clover
*	*Trifolium pratense*	Red Clover
*	*Trifolium repens* var. *repens*	White Clover
*	*Trifolium* spp.	Clover
*	*Trifolium subterraneum*	Subterranean Clover
*	*Ulex europaeus*	Gorse
*	*Vicia sativa*	Common Vetch
*	*Vicia sativa* subsp. *sativa*	Common Vetch
*	*Vicia tetrasperma*	Slender Vetch
	Viminaria juncea	Golden Spray

Fumariaceae

*	*Fumaria bastardii*	Bastards Fumitory
*	*Fumaria muralis* subsp. *muralis*	Wall Fumitory
*	*Fumaria officinalis spp.* agg.	Fumitory
*	*Fumaria* spp.	Fumitory

Gentianaceae

*	*Centaurium erythraea*	Common Centaury
*	*Centaurium* spp.	Centaury
*	*Centaurium tenuiflorum*	Slender Centaury
*	*Cicendia filiformis*	Slender Cicendia
*	*Cicendia quadrangularis*	Square Cicendia

Geraniaceae

*	*Geranium dissectum*	Cut-leaf Cranesbill
*	*Geranium molle* var. *molle*	Dovesfoot
	Geranium potentilloides	Cinquefoil Cranesbill
	Geranium retrorsum s.l.	Grassland Cranesbill
	Geranium solanderi s.l.	Austral Cranesbill
	Geranium spp.	Crane's Bill
	Pelargonium australe	Austral Stork's-bill
*	*Pelargonium capitatum*	Rose-scented Pelargonium
	Pelargonium inodorum	Kopata
	Pelargonium spp.	Stork's Bill
*	*Pelargonium X domesticum*	Regal Pelargonium

Goodeniaceae

	Goodenia elongata	Lanky Goodenia
	Goodenia geniculata	Bent Goodenia
	Goodenia humilis	Swamp Goodenia
	Goodenia lanata	Trailing Goodenia
	Goodenia ovata	Hop Goodenia
	Selliera radicans	Shiny Swamp-mat

Haloragaceae

	Gonocarpus humilis	Shade Raspwort
	Gonocarpus micranthus	Creeping Raspwort
	Gonocarpus micranthus subsp. *micranthus*	Creeping Raspwort
	Gonocarpus spp.	Raspwort
	Gonocarpus tetragynus	Common Raspwort
	Gonocarpus teucrioides s.l.	Germander Raspwort
	Haloragis heterophylla	Varied Raspwort
	Myriophyllum amphibium	Broad Water-milfoil
*	*Myriophyllum aquaticum*	Parrot's Feather
	Myriophyllum crispatum	Upright Water-milfoil
	Myriophyllum integrifolium	Tiny Water-milfoil
	Myriophyllum simulans	Amphibious Water-milfoil
	Myriophyllum spp.	Water-milfoil

Lamiaceae

	Lycopus australis	Australian Gipsywort
*	*Melissa officinalis*	Lemon Balm
*	*Mentha pulegium*	Pennyroyal

	Plectranthus spp.	Plectranthus
	Prostanthera lasianthos	Victorian Christmas-bush
*	*Prunella vulgaris*	Self-heal

Lauraceae

	Cassytha glabella	Slender Dodder-laurel
	Cassytha melantha	Coarse Dodder-laurel
	Cassytha pubescens s.s.	Downy Dodder-laurel

Lentibulariaceae

	Utricularia australis	Yellow Bladderwort
	Utricularia dichotoma	Fairies' Aprons
*	*Utricularia gibba*	Floating Bladderwort
	Utricularia tenella	Pink Bladderwort

Linaceae

	Linum marginale	Native Flax

Loganiaceae

	Mitrasacme spp. (s.l.)	Mitrewort
	Phyllangium distylis	Tiny Mitrewort

Loranthaceae

	Amyema miquelii	Box Mistletoe
	Amyema pendula	Drooping Mistletoe
	Amyema quandang var. *quandang*	Grey Mistletoe
	Amyema spp.	Mistletoe
	Muellerina eucalyptoides	Creeping Mistletoe

Lythraceae

	Lythrum hyssopifolia	Small Loosestrife
*	*Lythrum junceum*	Mediterranean Loosestrife

Malvaceae

*	*Malva dendromorpha*	Tree Mallow
*	*Malva nicaeensis*	Mallow of Nice
*	*Malva parviflora*	Small-flower Mallow
	Malva spp.	Mallow
*	*Modiola caroliniana*	Red-flower Mallow

Menyanthaceae

	Villarsia exaltata	Erect Marsh-flower
	Villarsia reniformis	Running Marsh-flower

Mimosaceae

*	*Acacia baileyana*	Cootamundra Wattle
	Acacia brownii	Heath Wattle
	Acacia dealbata	Silver Wattle
*	*Acacia decurrens*	Early Black-wattle
*	*Acacia elata*	Cedar Wattle
#	*Acacia floribunda*	White Sallow-wattle
	Acacia genistifolia	Spreading Wattle
#	*Acacia howittii*	Sticky Wattle
	Acacia implexa	Lightwood
*	*Acacia iteaphylla*	Flinders Range Wattle

(#)	*Acacia longifolia s.l.*	Coast/Sallow Wattle
#	*Acacia longifolia* subsp. *longifolia*	Sallow Wattle
(#)	*Acacia longifolia* subsp. *sophorae*	Coast Wattle
	Acacia mearnsii	Black Wattle
	Acacia melanoxylon	Blackwood
	Acacia oxycedrus	Spike Wattle
	Acacia paradoxa	Hedge Wattle
*	*Acacia prominens*	Gosford Wattle
	Acacia pycnantha	Golden Wattle
#	*Acacia retinodes*	Wirilda
*	*Acacia saligna*	Golden Wreath Wattle
	Acacia spp.	Wattle
	Acacia stricta	Hop Wattle
	Acacia suaveolens	Sweet Wattle
	Acacia ulicifolia	Juniper Wattle
	Acacia verticillata	Prickly Moses
	Acacia verticillata subsp. *ovoidea*	Ovoid Prickly Moses
	Acacia verticillata subsp. *verticillata*	Prickly Moses
*	*Paraserianthes lophantha* subsp. *lophantha*	Cape Wattle

Myoporaceae

#	*Myoporum insulare*	Common Boobialla
	Myoporum sp. 1	Sticky Boobialla

Myrtaceae

*	*Agonis flexuosa*	Willow Myrtle
	Callistemon sieberi	River Bottlebrush
#	*Corymbia maculata*	Spotted Gum
#	*Eucalyptus botryoides*	Southern Mahogany
	Eucalyptus camaldulensis	River Red-gum
	Eucalyptus cephalocarpa s.l.	Silver-leaf Stringybark
r	*Eucalyptus fulgens*	Green Scentbark
#	*Eucalyptus globulus*	Southern Blue-gum
	Eucalyptus macrorhyncha	Red Stringybark
	Eucalyptus obliqua	Messmate Stringybark
	Eucalyptus ovata	Swamp Gum
	Eucalyptus ovata var. *ovata*	Swamp Gum
	Eucalyptus pauciflora	Snow Gum
	Eucalyptus radiata subsp. *radiata*	Narrow-leaf Peppermint
	Eucalyptus spp.	Eucalypt
	Eucalyptus viminalis	Manna Gum
	Eucalyptus viminalis subsp. *pryoriana*	Coast Manna-gum
e	*Eucalyptus X studleyensis*	Studley Park Gum
	Kunzea ericoides spp. agg.	Burgan
	Leptospermum continentale	Prickly Tea-tree
#	*Leptospermum laevigatum*	Coast Tea-tree
	Leptospermum lanigerum	Woolly Tea-tree
	Leptospermum myrsinoides	Heath Tea-tree
#	*Melaleuca armillaris* subsp. *armillaris*	Giant Honey-myrtle
	Melaleuca ericifolia	Swamp Paperbark
*	*Melaleuca hypericifolia*	Hillock Bush
	Melaleuca lanceolata subsp. *lanceolata*	Moonah

	Melaleuca spp.	Honey-myrtle
	Melaleuca squarrosa	Scented Paperbark

Oleaceae

*	*Fraxinus angustifolia*	Desert Ash
*	*Fraxinus angustifolia* subsp. *oxycarpa*	Syrian Ash
*	*Fraxinus* spp.	Ash
*	*Ligustrum* spp.	Privet
*	*Olea europaea*	Olive

Onagraceae

	Epilobium billardierianum	Variable Willow-herb
*	*Epilobium ciliatum*	Glandular Willow-herb
	Epilobium hirtigerum	Hairy Willow-herb
	Epilobium pallidiflorum	Showy Willow-herb
	Epilobium spp.	Willow Herb

Oxalidaceae

	Oxalis corniculata s.l.	Yellow Wood-sorrel
*	*Oxalis corniculata s.s.*	Creeping Wood-sorrel
*	*Oxalis debilis* var. *corymbosa*	Pink Shamrock
	Oxalis exilis	Shady Wood-sorrel
*	*Oxalis incarnata*	Pale Wood-sorrel
*	*Oxalis latifolia*	Large-leaf Wood-sorrel
	Oxalis perennans	Grassland Wood-sorrel
*	*Oxalis pes-caprae*	Soursob
*	*Oxalis purpurea*	Large-flower Wood-sorrel
	Oxalis spp.	Wood Sorrel
*	*Oxalis spp.* (naturalised)	Wood Sorrel

Papaveraceae

*	*Eschscholzia californica*	Californian Poppy
*	*Glaucium flavum*	Yellow Horned-poppy

Passifloraceae

*	*Passiflora subpeltata*	White Passion-fruit
*	*Passiflora tarminiana*	Banana Passion-fruit

Phytolaccaceae

*	*Phytolacca octandra*	Red-ink Weed

Pittosporaceae

	Billardiera scandens	Common Apple-berry
	Billardiera scandens var. *scandens*	Common Apple-berry
	Bursaria spinosa	Sweet Bursaria
	Bursaria spinosa subsp. *spinosa*	Sweet Bursaria
#	*Pittosporum undulatum*	Sweet Pittosporum
*	*Sollya heterophylla*	Bluebell Creeper

Plantaginaceae

*	*Plantago australis*	Southern Plantain
*	*Plantago coronopus*	Buck's-horn Plantain
*	*Plantago coronopus* subsp. *coronopus*	Buck's-horn Plantain
	Plantago debilis	Shade Plantain

*	*Plantago lanceolata*	Ribwort
*	*Plantago major*	Greater Plantain

Polygalaceae

	Comesperma calymega	Blue-spike Milkwort
	Comesperma ericinum	Heath Milkwort
	Comesperma spp.	Milkwort
	Comesperma volubile	Love Creeper
*	*Polygala myrtifolia* var. *myrtifolia*	Myrtle-leaf Milkwort

Polygonaceae

*	*Acetosa sagittata*	Rambling Dock
*	*Acetosella vulgaris*	Sheep Sorrel
	Muehlenbeckia adpressa	Climbing Lignum
	Persicaria decipiens	Slender Knotweed
	Persicaria praetermissa	Spotted Knotweed
*	*Polygonum aviculare s.l.*	Prostrate Knotweed
*	*Polygonum aviculare s.s.*	Hogweed
	Rumex bidens	Mud Dock
	Rumex brownii	Slender Dock
*	*Rumex conglomeratus*	Clustered Dock
*	*Rumex crispus*	Curled Dock
*	*Rumex obtusifolius* subsp. *obtusifolius*	Broad-leaf Dock
*	*Rumex pulcher* subsp. *pulcher*	Fiddle Dock
*	*Rumex spp.* (naturalised)	Dock (naturalised)

Portulacaceae

	Montia fontana	Water Blinks
	Neopaxia australasica	White Purslane
	Portulaca oleracea	Common Purslane

Primulaceae

*	*Anagallis arvensis*	Pimpernel
*	*Anagallis minima*	Chaffweed
	Samolus repens	Creeping Brookweed

Proteaceae

	Banksia integrifolia subsp. *integrifolia*	Coast Banksia
	Banksia marginata	Silver Banksia
*	*Grevillea robusta*	Silky Oak
	Grevillea spp.	Grevillea
	Hakea decurrens subsp. *physocarpa*	Bushy Needlewood
*	*Hakea drupacea*	Sweet Hakea
*	*Hakea laurina*	Pincushion Hakea
	Hakea nodosa	Yellow Hakea
	Hakea sericea s.l.	Bushy Needlewood
	Hakea teretifolia subsp. *hirsuta*	Dagger Hakea
	Hakea ulicina	Furze Hakea
	Isopogon ceratophyllus	Horny Cone-bush
	Persoonia juniperina	Prickly Geebung

Ranunculaceae

	Clematis aristata	Mountain Clematis
	Clematis glycinoides var. *glycinoides*	Forest Clematis

	Clematis microphylla	Small-leaved Clematis
	Ranunculus amphitrichus	Small River Buttercup
r	*Ranunculus amplus*	Feather-leaf Buttercup
	Ranunculus glabrifolius	Shining Buttercup
	Ranunculus inundatus	River Buttercup
*	*Ranunculus muricatus*	Sharp Buttercup
	Ranunculus pumilio	Ferny Small-flower Buttercup
*	*Ranunculus repens*	Creeping Buttercup
*	*Ranunculus sceleratus* subsp. *sceleratus*	Celery Buttercup
	Ranunculus spp.	Buttercup

Rhamnaceae

	Pomaderris paniculosa subsp. *paralia*	Coast Pomaderris

Rosaceae

	Acaena agnipila	Hairy Sheep's Burr
	Acaena echinata	Sheep's Burr
	Acaena novae-zelandiae	Bidgee-widgee
	Acaena ovina	Australian Sheep's Burr
	Acaena spp.	Sheep's Burr
*	*Aphanes arvensis*	Parsley Piert
*	*Cotoneaster divaricatus*	Green Cotoneaster
*	*Cotoneaster franchetii*	Grey Cotoneaster
*	*Cotoneaster glaucophyllus* var. *serotinus*	Large-leaf Cotoneaster
*	*Cotoneaster pannosus*	Velvet Cotoneaster
*	*Cotoneaster* spp.	Cotoneaster
*	*Crataegus monogyna*	Hawthorn
*	*Malus pumila*	Apple
*	*Photinia glabra*	Red-leaf Photinia
*	*Prunus cerasifera*	Cherry Plum
*	*Prunus cerasifera 'Nigra'*	Purple-leaf Cherry-plum
*	*Prunus persica*	Peach
*	*Prunus spinosa*	Blackthorn
*	*Prunus* spp.	Prunus
*	*Rhaphiolepis indica*	Indian Hawthorn
*	*Rosa rubiginosa*	Sweet Briar
	Rosaceae spp.	Rosid
*	*Rubus anglocandicans*	Blackberry
*	*Rubus fruticosus spp.* agg.	Blackberry
	Rubus parvifolius	Small-leaf Bramble
*	*Rubus polyanthemus*	Blackberry
	Rubus spp.	Bramble

Rubiaceae

	Coprosma quadrifida	Prickly Currant-bush
*	*Coprosma repens*	Mirror Bush
*	*Galium aparine*	Cleavers
	Galium australe	Tangled Bedstraw
	Galium gaudichaudii	Rough Bedstraw
*	*Galium murale*	Small Goosegrass
	Opercularia ovata	Broad-leaf Stinkweed
	Opercularia varia	Variable Stinkweed

Rutaceae

Boronia muelleri	Forest Boronia
Boronia parviflora	Swamp Boronia
Correa alba	White Correa
Correa reflexa	Common Correa
Correa reflexa var. *reflexa*	Common Correa

Salicaceae

* *Populus* spp.	Poplar
* *Salix alba*	White Willow
* *Salix babylonica s.l.*	Weeping Willow
* *Salix cinerea*	Grey Sallow
* *Salix* spp.	Willow

Santalaceae

Exocarpos cupressiformis	Cherry Ballart
Exocarpos strictus	Pale-fruit Ballart

Sapindaceae

Dodonaea viscosa subsp. *cuneata*	Wedge-leaf Hop-bush

Scrophulariaceae

Euphrasia collina	Purple Eyebright
Gratiola peruviana	Austral Brooklime
Gratiola pubescens	Glandular Brooklime
Limosella australis	Austral Mudwort
* *Parentucellia viscosa*	Yellow Bartsia
* *Veronica arvensis*	Wall Speedwell
Veronica calycina	Hairy Speedwell
Veronica gracilis	Slender Speedwell
* *Veronica persica*	Persian Speedwell
Veronica plebeia	Trailing Speedwell
Veronica spp.	Speedwell

Solanaceae

* *Lycium barbarum*	Chinese Box-thorn
* *Lycium ferocissimum*	African Box-thorn
* *Salpichroa origanifolia*	Pampas Lily-of-the-Valley
Solanum aviculare	Kangaroo Apple
* *Solanum chenopodioides*	Whitetip Nightshade
* *Solanum douglasii*	Douglas' Nightshade
Solanum laciniatum	Large Kangaroo Apple
* *Solanum mauritianum*	Wild Tobacco Tree
* *Solanum nigrum s.s.*	Black Nightshade
* *Solanum pseudocapsicum*	Madeira Winter-cherry
Solanum spp.	Nightshade

Stackhousiaceae

Stackhousia monogyna	Creamy Stackhousia
Stackhousia viminea	Slender Stackhousia

Stylidiaceae

Stylidium beaugleholei	Beauglehole's Triggerplant
Stylidium graminifolium	Grass Triggerplant

	Stylidium inundatum	Hundreds and Thousands
	Stylidium perpusillum	Slender Triggerplant
	Tamaricaceae	
*	*Tamarix* spp.	Tamarisk
	Thymelaeaceae	
	Pimelea humilis	Common Rice-flower
	Pimelea linifolia	Slender Rice-flower
	Pimelea octophylla	Woolly Rice-flower
	Tremandraceae	
	Tetratheca ciliata	Pink-bells
	Tetratheca pilosa	Hairy Pink-bells
	Tropaeolaceae	
*	*Tropaeolum majus*	Nasturtium
	Urticaceae	
*	*Urtica urens*	Small Nettle
	Verbenaceae	
*	*Lantana camara* var. *camara*	Lantana
	Violaceae	
	Viola cleistogamoides	Hidden Violet
	Viola hederacea	Ivy-leaf Violet
	Viola sieberiana spp. agg.	Tiny Violet
	Viola spp.	Violet

Appendix 4. Sites of remnant vegetation in the City of Frankston. April 2006.

Table 1. Sites listed with previously assigned Site Numbers (Muir et al. 1997) and summarised site significance.

Site No.	Amalgamated Site No's.	1997 Site No.	Name	Site Significance
1	1 + 2	1	Frankston Reservoir, Frankston South	Very High
2	3	3	Paratea Reserve, Frankston South	Very High
3	5	5	Baxter Park, Frankston South	Very High
4	6 + 7 + 145	6	Upper Sweetwater Ck, Lawson Reserve, Frankston South	Very High
5	8	8	Sweetwater Ck & tributaries, B. Powell Dr, Marcus Rd, Frankston South	High
6	9	9	Sweetwater Ck Reserve, Frankston South	Very High
7	10 + 11	10	Newton Ave, Langwarrin South	High
8	12	12	McClelland Dr., Sherwood, Golf Links Dr, Langwarrin South	High
9	14	14	Bayside C College / FCC Reserve, Frankston South	Very High
10	15	15	Escarpment Drive Reserve, Stotts Lane, Frankston South	Very High
11	16 + 17	16	Robinsons Park, Wittenberg Reserve, Frankston	Very High
12	18 + 19	18	McClelland Dr, Railway & F'way Res, Langwarrin	Very High
13	20	20	Frankston Golf Club	Medium
14	21	21	Luke Cres., Frankston South	Very High
15	22	22	Wallace Av. Reserve, Frankston	High
16	23 + 24	23	Bunarong Park, Frankston	High
17	25 + 26	25	Willow Road Reserve, Frankston	Very High
18	27 + 28	27	North Road (60 Cranbourne Rd), Langwarrin	High
19	28	28	Acacia Heath, North Road, Langwarrin	Low-Medium
20	29	29	Acacia Heath, McClelland Dr, Langwarrin	Very High
21	30	30	60 North Road, Langwarrin	Medium
22	32	32	Langwarrin Flora & Fauna Reserve	Very High
23	33	33	Wattlebird Cres., Langwarrin	Very High
24	36 + 42	36	Kananook Creek North, Rosella St to Eel Race Drain	Very High
25	37 + 41	37	Seaford Foreshore Reserve	Very High
26	38 + 39	38	Kananook Creek South, Beach St to Nepean Hwy, Frankston	High
27	40	40	Kananook Ck Reserve, Frankston S.L.S.C.	High
28	43	43	Seaford Wetlands	National
29	44	44	Motorcycle/BMX Club, Seaford	High
30	45	45	Frankston Freeway, Seaford	Very High
31	46	46	Belvedere Reserve, Seaford	High
32	47	47	Belvedere Bushland Res / F'way Res., Seaford	Very High
33	48 + 49	48	Proposed Freeway Res, Fulmar St, Carrum Downs	Very High
34	50	50	G.K. Tucker Reserve, Carrum Downs	High
35	52	52	Carrum Downs Secondary College, Carrum Downs	Medium
36	53	53	Taylors Road, Skye	Medium
37	54 + 55	54	Long Island Country Club, Frankston	Medium

38	56 - 59	56	Peninsula Country Golf Club, Frankston	Very High
39	60	60	The Pines Flora and Fauna Res., Frankston North	Very High
40	61	61	Addition to the Pines - Ballarto Rd, Frankston North	High
41	62	62	The Pines Flora & Fauna Res - Dara Land, Frankston North	Very High
42	63	63	McClelland Dr / Boggy Creek, Langwarrin	High
43	65	65	Freeway Reserve, nth of Skye Rd, Frankston North	Low-Medium
44	66 + 68 + 69 + 71	66	Freeway Reserve & adj. land, south of Skye Rd, Frankston	High
45	67	67	McClelland Drive, Pioneer, Tamarisk Wetland, Langwarrin	High
46	70	70	Studio Park, Langwarrin	Very High
47	72	72	DPI, Frankston North	Very High
48	74 + 75	74	Little Boggy Creek Res, Stevens Rd Res, Lexton Dr, Langwarrin	Very High
49	76	76	Boggy Creek, Quarry Rd, Appleberry Ave, Langwarrin	Very High
50	77	77	Burdetts, Langwarrin	Very High
51	78	78	Harold Road, Skye	Medium
52	79	79	Highview Road, Skye	High
53	80	80	1005 Dandenong - Hastings Road, Skye	Very High
54	81	81	McKays Road, 1205 -1209 D'nong - Hastings Rd, Langwarrin	High
55	82	82	120 McKays Rd, 1265,1271 D'nong - Hastings Rd, Langwarrin	Medium
56	83	83	Grassmere Road, D-H Rd, Langwarrin	Very High
57	84	84	Kingston Road, Grassmere Rd, Langwarrin	Very High
58	85	85	Kingston Road, Karen Close, Langwarrin	High
59	86	86	Monique Bushland Reserve, Langwarrin	Medium
60	88	88	Union Road, Matthew Crt, Cranb - Frankston Rd, Langwarrin	High
61	90	90	Aqueduct Reserve, Langwarrin	Medium
62	91	91	Langwarrin Pony Club	High
63	92 + 93 + 94	92	385 -445 North Road, Langwarrin	High
64	95 + 96 + 97 + 98 + 99	95	1395-1461 D'nong-Hast Rd, 1 - 31 Bellbird Crt, Langwarrin	Very High
65	100 + 101	100	1555-1575 Dandenong-Hastings Rd, Leisureland Dr, Langwarrin	Very High
66	102 + 103	102	Centre Rd, Faith Crt, Langwarrin	Very High
67	104	104	Sunnybank Road, Langwarrin	Very High
68	105	105	Donald Road, Langwarrin South	Very High
69	106	106	Victory Road, Donald Rd, Langwarrin	High
70	107	107	705 Robinsons Rd, Langwarrin	High
71	108	108	Camp Road, Langwarrin South	Very High
72	109 + 110 + 118	109	West Road, Robinsons Rd, Langwarrin South	Very High
73	111	111	Gardener Road, Langwarrin South	Medium
74	112	112	Weeroona Road, Langwarrin South	High
75	113	113	95 Highfield Dr., Langwarrin South	Very High
76	114	114	Highfield Dr., 385 Baxter - Tooradin Rd, Langwarrin South	High
77	115	115	35 & 45 West Road, Langwarrin South	Very High
78	116	116	30 Victoria Road, Langwarrin South	Medium

79	117	117	50 Victoria Road, Langwarrin South	High
80	119 + 120	119	Baxter-Tooradin Rd, Victoria Rd, Langwarrin South	Medium
81	121	121	Victoria Road - D -Hastings Rd, Langwarrin South	Medium
82	122	122	Olivers Hill, Frankston South	High
83	123	123	Bergman Rd road reserve, Langwarrin	Very High
84	124	124	Oliphant Way Wetland, Seaford	Very High
85	125	125	Casuarina Reserve, Frankston South	Very High
86	126	126	13 Gum Hill Drive, Langwarrin	Very High
87	127	127	Shepherds Hut Rd, Langwarrin South	Very High
88	128	128	Frankston Pier to Somme Ave, Frankston South	Very High
89	129	129	Frankston Beach, Long Island; Wells St to Allawah Av	High-Very High
90	-		Navarre Reserve, Frankston	High
91	-		Gumnut Bushland Reserve, Frankston	High
92	-		Illawong Reserve, Langwarrin	Medium
93	-		Kooluna Reserve, Frankston	Medium
94	-		Clifton Reserve, Carrum Downs	Medium
95	-		Perkins Reserve, Carrum Downs	Medium
96	-		Lloyd Park, Cranbourne - Frankston Rd, Langwarrin	Very High
97	-		Oakwood Reserve, Carrum Downs	Medium
98	-	91	Council Reserve, North & Centre Roads, Langwarrin	Very High
99	-	-	Outlook Reserve, Frankston	Medium
100	-	-	Banjo Rise, Carrum Downs	Medium
101	-	-	Frankston Foreshore - Daveys Bay	Medium
102	-	-	Rinella Reserve, Frankston South	Very High
103	-	-	Overport Park, Frankston South	Very High
104	-	-	Macrosty Crt, Frankston	Low-Medium
105	-	-	Derinya Reserve, Frankston South	Very High
106	-	-	Esplanade Reserve, Frankston	Medium
107	-	15	Brahma Kumaris Retreat Centre, Frankston South	Very High
108	-	-	Kackeraboite Creek, Frankston South	High

SITE 1 NAME Frankston Reservoir, Frankston South

Site Significance	Very High
Area (Ha)	65.79
Tenure	Public
Biosites	Regional (#4658)
Site notes	Mixture of intact remnant and highly modified vegetation. Overall value of site elevated by its size.
Access problems	Yes – difficulties with some sections

EVC 1	**Grassy Woodland 175**
Habitat Score	41-59
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Sweet Pittosporum, Spanish Heath, Blackberry, Coast Wattle, Pines, Bluebell Creeper, Boneseed, Cedar Wattle
Notes	Very variable condition due to major infestations of woody weeds in some areas. Large portion of this EVC regenerating from fire (southern section). Areas near Damp Heathland (north-west of site) have elements of damp Heathy Woodland.
EVC 2	**Gully Woodland 902**
Habitat Score	28-49
Status	Endangered
Conservation Significance	High-Very High
Invasive weed species	Sweet Pittosporum, Blue-bell Creeper, Coast Wattle, Pines, Blackberry, Boneseed, Spanish Heath, Mirror Bush
Notes	Very severe infestation of Sweet Pittosporum south of Reservoir, along Sweetwater Creek
EVC 3	**Damp Heathland 710**
Habitat Score	37-65
Status	Rare
Conservation Significance	High- Very High
Invasive weed species	Bluebell Creeper, Coast Wattle, Pine, Sweet Pittosporum
Notes	Dominated by Scrub Sheoke. Contains some elements of Damp Heathy Woodland and/or Swampy Woodland.
EVC 4	**Aquatic Sedgeland 308**
Habitat Score	92
Status	Vulnerable
Conservation Significance	Very High
Invasive weed species	
Notes	High quality aquatic vegetation around perimeter of reservoir
EVC 5	**Submerged Aquatic Herbland 918**
Habitat Score	not scored
Status	Rare (not listed for the bioregion)
Conservation Significance	Very High
Invasive weed species	
Notes	Submerged vegetation was not assessed however is described in Ecological Horticulture (1992). Extent is not known (mapped area is estimate only).

SITE 2 NAME Paratea Reserve, Frankston South

Site Significance	Very High
Area (Ha)	8.03
Tenure	Public
Biosites	Regional (#5105)
Site notes	Relatively intact. Relatively low cover of weeds, weedier in the south-west corner, more degraded along edges, especially on north and west borders. Some tree death. From previous studies 131 native species have been recorded including orchids and Snow Gums.
Access problems	No

EVC 1 Grassy Woodland 175

Habitat Score	56 - 73
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Sweet Vernal-grass, Brome, Wood Sorrel, Coast Wattle, Asparagus Fern
Notes	Most of the EVC is of the higher Condition Score with isolated patches of greater weed invasion. High diversity of species

SITE 3 NAME Baxter Park, Frankston South

Site Significance	Very High
Area (Ha)	23.23
Tenure	Public
Biosites	None
Site notes	Vegetation quality varies greatly. Coast Wattle and Sweet Pittosporum are the most serious weeds. Dieback is also a problem.
Access problems	No

EVC 1	**Grassy Woodland 175**
Habitat Score	38 - 57
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Sweet Pittosporum, Coast Wattle, Ivy, Agapanthus, Pampas Grass, Gorse, Boneseed, Pine, Blackberry, Yorkshire Fog, Ribwort
Notes	Has affinities with Valley Heathy Forest. Some areas are heavily infested with weeds and dieback is extensive.

EVC 2	**Damp Sands Herb-rich Woodland 3**
Habitat Score	43 - 61
Status	Vulnerable
Conservation Significance	High – Very High
Invasive weed species	Coast Wattle, Blackberry, Sweet Pittosporum, Brown-top Bent, and Panic Veldt-grass.
Notes	Some areas are in good condition, but species diversity is not high. Presence of Damp Sands Herb-rich Woodland (J. Yugovic pers. comm.).

SITE 4 NAME Upper Sweetwater Creek, Lawson Reserve,

Site Significance	Very High
Area (Ha)	7.13
Tenure	Public
Biosites	None
Site notes	The riparian zone is degraded and requires weed control. The remaining vegetation is patchy, with some relatively good quality Heathy Woodland present.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	51 - 71
Status	Depleted
Conservation Significance	Medium - High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Coast Tea-tree and Panic Veldt-grass
Notes	Parts of this EVC are in good condition and species rich. In other areas Coast Tea-tree dominates.
EVC 2	**Swamp Scrub 53**
Habitat Score	24 - 39
Status	Endangered
Conservation Significance	High
Invasive weed species	White Arum-lily, Three-corner Garlic, Coast Wattle, Sweet Pittosporum, English Ivy, Blackberry, Montbretia and Kikuyu
Notes	The large infestation of White Arum-lily requires control.
EVC 3	**Grassy Woodland 176**
Habitat Score	38 - 55
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Gorse, Boneseed, Coast Wattle, Coast Tea-tree, Sweet Pittosporum, Boneseed, and Brown-top Bent.
Notes	Vegetation condition varies substantially over a small area.
EVC 4	**Swampy Riparian Woodland 83**
Habitat Score	31 - 49
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	English Ivy, Sweet Pittosporum, Three-corner Garlic, Coast Tea-tree, Mirror Bush, Wandering Jew and Fiddle Dock
Notes	The creek is degraded and weed infested.

SITE 5 NAME Sweetwater Creek & tributaries, Baden Powell Reserve

Site Significance	High
Area (Ha)	16.97
Tenure	Both
Biosites	None
Site notes	Small remnants being augmented through weed control and replanting, eg. Baden Powell Reserve.
Access problems	Yes

EVC 1	**Swampy Riparian Woodland 83**
Habitat Score	22 - 24
Status	Endangered
Conservation Significance	High
Invasive weed species	Willows, White Arum-lily, Broom, Wandering Jew, Coast Wattle, Pittosporum, Boneseed, Coast Tea-tree, Blackberry, Ivy, Cootamundra Wattle, Asparagus Fern, Bridal Creeper, Tobacco Nightshade, Agapanthus
Notes	Generally few remnants and often dominated by Bracken. Deteriorates upstream to south-east.

EVC 2	**Heathy Woodland 48**
Habitat Score	55 - 65
Status	Depleted
Conservation Significance	Medium - High
Invasive weed species	Coast Tea-tree, Myrtle-leaf Milkwort, Pittosporum
Notes	Grades into Swampy Riparian Woodland. Highest quality at western end of Marcus Rd.

SITE 6 NAME Sweetwater Creek Reserve, Frankston South

Site Significance	Very High
Area (Ha)	13.24
Tenure	Public
Biosites	Regional (5152)
Site notes	Difficult to map as EVCs merge into one another, particularly along creek. Remnants variable with small high quality patches, particularly in Nature Reserve. Huge weed problems particularly on lower slopes and riparian zone.
Access problems	No

EVC 1	**Swampy Riparian Woodland 83**
Habitat Score	22 - 31
Status	Endangered
Conservation Significance	High
Invasive weed species	Coast Tea-tree, Coast Wattle, White Arum-lily, Sweet Pittosporum, Cape Ivy, Boneseed, Ivy, Bridal Creeper, Blackberry, Jew, Mirror-bush
Notes	Some better remnants near eastern end. Grades into Shrubby Gully Forest and Heathy Woodland. Revegetation works in past may have altered distribution of EVCs.

EVC 2	**Shrubby Gully Forest 938**
Habitat Score	22
Status	Vulnerable
Conservation Significance	Medium
Invasive weed species	Angled Onion, Cape Ivy, White Arum-lily, Bridal Creeper, Willow, Pampas Grass, Tree Lucerne, Blackberry, Mirror-bush …
Notes	Good level of water flowing - quite eutrophic. Tree plantings.

EVC 3	**Heathy Woodland 48**
Habitat Score	29 - 52
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Wattle, Asparagus, Wild Tobacco Tree, Cherry Plum, Boneseed, Ivy, Nasturtium, Blue Periwinkle …
Notes	

EVC 4	**Grassy Woodland 175**
Habitat Score	33 - 44
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Coast Tea-tree, Coast Wattle
Notes	On granite outcrops - extent of EVC unclear - merges into Heathy Woodland

SITE 7 NAME Newton Ave, Langwarrin South

Site Significance	High
Area (Ha)	1.01
Tenure	Private
Biosites	None
Site notes	Patchy, very small remnants in property and along the roadside. Mostly scattered trees with associated clumps of native understorey. The site is largely cleared or landscaped. Some of the canopy layer has been planted (e.g. Spotted Gum). Native vegetation left along the roadside (off private property). Artificial wetland on property not assessed.
Access problems	some

EVC 1	**Valley Heathy Forest 127**
Habitat Score	22 - 33
Status	Endangered
Conservation Significance	High
Invasive weed species	Sweet Pittosporum, Pines, English Ivy, Cocksfoot, Sweet Vernal-grass, Coast Wattle, Blackberry, Prairie Grass,
Notes	Generally low species diversity, some large trees

SITE 8 NAME McClelland Dr., Sherwood Crt, Golf Links Dr., Langwarrin South

Site Significance	High
Area (Ha)	13.99
Tenure	Private
Biosites	None
Site notes	Disturbed remnant patch, patchy quality. Possibly some Swamp Scrub to the south.
Access problems	yes - didn't get access to south

EVC 1 **Valley Heathy Forest 127**

Habitat Score	39 - 47
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Sweet Vernal-grass, Panic Veldt Grass
Notes	Understorey is bracken dominated with patches of Heath Tea-tree. Species diversity is low.

SITE 9 NAME Bayside Christian College / FCC Reserve, Frankston

Site Significance	Very High
Area (Ha)	17.53
Tenure	Both
Biosites	State (#4917)
Site notes	Overall in good condition. Weeds require control.
Access problems	yes - part of site

EVC 1 **Valley Heathy Forest 127**

Habitat Score	54 - 70
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Blackberry, Coast Tea-tree, Pine, Boneseed, Bulbil Watsonia, Red-ink Weed, Sweet Vernal-grass, and Panic-veldt Grass
Notes	Has affinities with Grassy Woodland. The majority of patch supports relatively good quality vegetation.

SITE 10 NAME Escarpment Drive Reserve, Stotts Lane, Frankston South

Site Significance	Very High
Area (Ha)	2.59
Tenure	Both
Biosites	None
Site notes	Remnant of patchy quality. Generally, species diversity is relatively high and weed invasion is moderate.
Access problems	No

EVC 1 **Grassy Woodland 175**

Habitat Score	49 - 57
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Sweet Pittosporum, Pines, Coast Wattle, Blackberry
Notes	Remnant of patchy quality.

SITE 11 NAME Robinsons Park, Wittenberg Reserve,

Site Significance	Very High
Area (Ha)	9.11
Tenure	Public
Biosites	None
Site notes	Small to large remnants in moderately good condition. Weed control is required, especially for Coast Wattle.
Access problems	No

EVC 1	**Grassy Woodland 175**
Habitat Score	41 - 49
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Sweet Vernal-grass, Coast Wattle, Boneseed, Panic Veldt-grass, Capeweed, Cocksfoot.
Notes	Located within Wittenberg Reserve, this vegetation supports a high cover of exotic grasses, especially on the edges. The shrub layer is sparse and recruitment of woody species almost absent.

EVC 2	**Valley Heathy Forest 127**
Habitat Score	39 - 60
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Cape Weed, Sweet Vernal-grass, Blackberry, and Onion Grass
Notes	This remnant vegetation consists as a narrow linear patch along Robinsons Road. The remainder of the area in the south consists of scattered trees.

SITE 12 NAME McClelland Dr, Railway & Freeway Reserve

Site Significance	Very High
Area (Ha)	14.15
Tenure	Public
Biosites	State (#4917)
Site notes	The vegetation on the western side of the railway supports the best quality vegetation for this site. Species diversity is quite high and overall the vegetation is in good condition.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	44 - 59
Status	Depleted
Conservation Significance	Medium - High
Invasive weed species	Sweet Pittosporum, Coast Wattle, Coast Tea-tree, Blackberry, Bulbil Watsonia.
Notes	Some areas are in relatively good condition.

EVC 2	**Valley Heathy Forest 127**
Habitat Score	40 - 56
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Bulbil Watsonia, Blackberry, Panic Veldt-grass, Pine, Boneseed, Cootamundra Wattle and Bluebell Creeper.
Notes	Located on both sides of the railway this vegetation grades into Heathy Woodland and is in relatively good condition.

SITE 13 NAME Frankston Golf Club

Site Significance	Medium
Area (Ha)	15.36
Tenure	Public
Biosites	None
Site notes	Highly modified and fragmented vegetation with the canopy (where present) mainly dominated by exotic species.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	24-50
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Tea-tree, Coast Wattle, Sweet Pittosporum, Cedar Wattle, Mirror Bush, Bluebell Creeper, Panic Veldt-grass
Notes	

EVC 2	**Damp Heathy Woodland 793**
Habitat Score	29
Status	Vulnerable
Conservation Significance	Medium
Invasive weed species	Coast Wattle, Bluebell Creeper, Sweet Pittosporum
Notes	This EVC is confined to the east of the site and is highly degraded. Mostly dominated by non-indigenous woody species. Thatch Saw-sedge prominent in the better areas.

SITE 14 NAME Luke Court, Frankston South

Site Significance	Very High
Area (Ha)	2.18
Tenure	Both
Biosites	None
Site notes	Mainly highly weed-invaded, poor-quality Damp Heathy Woodland but narrow band of Grassy Woodland in south retains moderate diversity – giving the site an elevated conservation significance. Presence of red-flowered form of *Correa reflexa* L. Costermans pers. comm.).
Access problems	No

EVC 1	**Damp Heathy Woodland 793**
Habitat Score	24
Status	Vulnerable
Conservation Significance	Medium
Invasive weed species	Coast Tea-tree, Sweet Pittosporum, Coast Wattle, Boneseed, Pines, Blackberry, Pampas Grass
Notes	Highly modified. Dominated by Coast Tea-tree.

EVC 2	**Grassy Woodland 175**
Habitat Score	42
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Bluebell Creeper, Cedar Wattle, Gorse
Notes	This EVC occupies a narrow strip adjacent to the high school, meeting Robinsons Rd. Although very small in size a good diversity of life-forms and species persists.

SITE 15 NAME Wallace Av. Reserve, Frankston

Site Significance	High
Area (Ha)	0.11
Tenure	Public
Biosites	None
Site notes	The majority of this site consists of scattered trees (*Eucalyptus ovata* in the drainage line and *E. radiata* on the drier areas. Invaded by some very serious weeds (e.g. Coast Tea-tree, Cotoneaster, Montpellier Broom, Cape Ivy, Panic Veldt-grass, Pine, Coast Wattle, Sweet Pittosporum, Wandering Jew, Asparagus Fern and Spanish Heath). Site significance elevated due to Grassy Woodland remnant.
Access problems	No

EVC 1	**Grassy Woodland 175**
Habitat Score	35
Status	Endangered
Conservation Significance	High
Invasive weed species	Sour-sob, Annual Veldt-grass and
Notes	This is a very small remnant that has been fenced off from the rest of Wallace Reserve and well managed.

SITE 16 NAME Bunarong Park, Frankston

Site Significance	**Very High**
Area (Ha)	7.76
Tenure	Public
Biosites	Regional (#5150)
Site notes	Important remnants of Sand Heathland and Heathy Woodland. Dumping of garden rubbish and spread of weeds requires management. Some sections could benefit from ecological burns.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	34 - 60
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Wattle, Asparagus Fern, Coast Tea-tree, Boneseed, Bluebell Creeper, Sweet Pittosporum, Cape Ivy, Jew
Notes	Large section very modified with Coast Tea-tree forming tall shrubland. Merges into Sand Heathland.

EVC 2	**Sand Heathland 6**
Habitat Score	61 - 67
Status	Rare
Conservation Significance	Very High
Invasive weed species	Coast Wattle
Notes	Mostly high quality remnants - more disturbed on perimeter. Assessed as treeless vegetation, although scattered eucalypts present

EVC 3	**Damp Heathy Woodland 793**
Habitat Score	57
Status	Vulnerable
Conservation Significance	Very High
Invasive weed species	Coast Wattle
Notes	Dominates southern quarter; reasonably good quality

SITE 17 NAME Willow Road Reserve, Frankston

Site Significance	Very High
Area (Ha)	15.23
Tenure	Public
Biosites	None
Site notes	Mostly Heathy Woodland, with two wetlands in major swales. Wetland vegetation is in relatively good condition. Regionally significant orchid *Spiranthes australis* present in road reserve and in Sedge Wetland (L. Costermans pers. comm.). Southern section of Heathy Woodland is very degraded and dominated by Coast Tea-tree. Southern section of Heathy Woodland is very degraded. Site used by walkers and cyclists (several tracks).
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	23-60
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Tea-tree, Coast Wattle, Pines, Cats Ear, Boneseed, Sweet Pittosporum, Blackberry
Notes	Canopy intact and large trees present across most of the site (except southern section) but understorey with generally low diversity, dominated by Bracken. The southern-most patch is highly degraded and is dominated by Coast Tea-tree. Within this mapping unit there is also Damp Sands Herb-rich Woodland (J. Yugovic pers. comm.).

EVC 2	**Aquatic Sedgeland 308**
Habitat Score	77-97
Status	Vulnerable
Conservation Significance	Very High
Invasive weed species	Arum Lily, Blackberry, Drain Flat-sedge
Notes	Good cover of aquatic vegetation. Some weedy sections around wetland edges. The EVCs 'Aquatic Herbland' (653) and 'Tall Marsh' (821) also present as part of the wetland complex (J. Yugovic pers. comm.).

SITE 18 NAME North Road (60 Cranbourne Rd), Langwarrin

Site Significance	**High**
Area (Ha)	5.23
Tenure	Private
Biosites	None
Site notes	Understorey highly degraded. Site used for cattle grazing.
Access problems	some.

EVC 1	**Heathy Woodland 48**
Habitat Score	39
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Sweet Vernal Grass, Blackberry, Grey Coast (Willow)
Notes	Land used for pasture but has remnant trees and some indigenous species persist in understorey

EVC 2	**Swamp Scrub 53**
Habitat Score	36
Status	Endangered
Conservation Significance	High
Invasive weed species	Coast Wattle, Watsonia, Sweet Pittosporum, Mahogany Gum
Notes	Degraded vegetation with high cover of woody weeds but good recruitment of indigenous shrubs where cattle have been excluded

SITE 19 NAME Acacia Heath, North Road, Langwarrin

Site Significance	Medium
Area (Ha)	2.28
Tenure	Both
Biosites	None
Site notes	Southern and western areas highly modified. Central section still largely intact despite Coast Tea-tree invasion.
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	31-57
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Tea-tree, Coast Wattle, Sweet Pittosporum, Pines, Greenbush
Notes	Some of the lower lying areas have elements of Damp Heathy Woodland and/or Riparian Scrub. Southern area near Sugarglider Close is dominated by woody weeds (Greenbush and Pines).

SITE 20 NAME Acacia Heath, Langwarrin

Site Significance	Very High
Area (Ha)	1.53
Tenure	Public
Biosites	None
Site notes	Small wetland with good cover of aquatic vegetation but little indigenous terrestrial vegetation surrounding it.
Access problems	No

EVC 1	**Aquatic Sedgeland 308**
Habitat Score	88
Status	Vulnerable
Conservation Significance	Very High
Invasive weed species	Jointed Rush, Blackberry, Coast Wattle
Notes	Small wetland surrounded by housing estate. Good cover of aquatic vegetation.

EVC 2	**Heathy Woodland 48**
Habitat Score	25
Status	Depleted
Conservation Significance	Low
Invasive weed species	Coast Tea-tree, Coast Wattle
Notes	Small degraded remnant east of wetland – dominated by invasive shrubs.

SITE 21 NAME 60 North Road, Langwarrin

Site Significance	Medium
Area (Ha)	1.54
Tenure	Private
Biosites	None
Site notes	Remnant vegetation with modified understorey due to weed invasion. Long absence of fire? Wetland adjacent to patch should probably be included.
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	46-51
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Wattle, Sweet Vernal-grass, Pines, Red-ink Weed, Sweet Pittosporum, Cedar Wattle, Coast Tea-tree, Agapanthus, Watsonia
Notes	Understorey modified by Sallow Wattle invasion and exotic grasses.

SITE 22 NAME Langwarrin Flora & Fauna Reserve

Site Significance	Very High
Area (Ha)	155.09
Tenure	Public
Biosites	State (#5094)
Site notes	Large intact area of remnant vegetation. Previously cleared area in south-west is regenerating to native vegetation. Some areas have been affected by woody weed invasion (management in progress at time of field visit) and/or others by Cinnamon Fungus (dieback). All EVCs were not surveyed but their presence was determined likely from desktop review (DSE modelling and report by D. Cheal (1984)). Complex vegetation mosaic across site has been highly simplified for mapping purposes. Also includes Riparian Scrub, Grassy Woodland, Damp Heathland and Sedgy Swampy Woodland EVCs (J. Yugovic pers. comm. Also present is Sedgy Swamp Woodland EVC (J. Yugovic pers. comm.).
Significant species	From L. Costermans (pers. comm.): v L *Diuris punctata var. punctata* Purple Diuris k *Corunastylis ciliata* Sharp Midge-orchid k *Pterostylis tasmanica* Bearded Greenhood (k) *Caladenia dilatata* Green-comb Spider-Orchid (may be C. *?phaeoclavia* – no VROT status)
Access problems	some restricted areas

EVC 1	**Damp Heathy Woodland 793**
Habitat Score	27-81
Status	Vulnerable
Conservation Significance	Medium - Very High
Invasive weed species	Coast Wattle, Blackberry, Yorkshire Fog
Notes	Ranges from high quality remnant native vegetation to previously cleared areas that have been recolonised in the past decade (in the south west).
EVC 2	**Sand Heathland 6**
Habitat Score	62-85
Status	Rare
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Coast Tea-tree
Notes	High quality remnants with minimal cover of weeds. Confined to deep sands on dune ridges, grades into Heathy Woodland on slopes.
EVC 3	**Riparian Scrub 191**
Status	Vulnerable
Conservation Significance	Very High
EVC 4	**Grassy Woodland 175**
Status	Endangered
Conservation Significance	High – Very High
EVC 5	**Damp Heathland 710**
Status	Rare
Conservation Significance	Very High
EVC 6	**Heathy Woodland 48**
Status	Depleted
Conservation Significance	High - Very High

SITE 23 NAME Wattlebird Cres., Langwarrin

Site Significance	Very High
Area (Ha)	6.71
Tenure	Private
Biosites	State (#5094)
Site notes	Intact vegetation which is contiguous with the Langwarrin Flora and Fauna Reserve. Residential developments have already encroached on the western patch boundary and construction is in progress immediately to the north.

EVC 1	**Sand Heathland 6**
Habitat Score	54-73
Status	Rare
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Coast Tea-tree, Pines
Notes	Intact heath on dune ridge. Contiguous with Langwarrin Flora and Fauna Reserve.

EVC 2	**Heathy Woodland 48**
Habitat Score	61
Status	Depleted
Conservation Significance	High
Invasive weed species	Coast Wattle, Pines, Coast Tea-tree, Sweet Pittosporum
Notes	Confined to the lower slopes east and west of the high central dune ridge. Localised elements of Riparian Scrub (e.g. Scented Paperbark and Coral Fern).

SITE 24 NAME Kananook Creek North, Rosella St - Eel Race Drain

Site Significance	Very High
Area (Ha)	34.01
Tenure	Public
Biosites	Regional (#4653)
Site notes	Patchy linear remnant. Swamp Scrub occurs as a thin strip along Kananook Creek and is mapped with Banksia Woodland as a complex. The understorey is very weed invaded, mainly by grassy weeds with some woody weeds. There are some large, old Banksias. Some revegetation work has been undertaken.
Access problems	No

EVC 1	**Coast Banksia Woodland / Swamp Scrub Mosaic 904**
Habitat Score	Not determined
Status	
Conservation Significance	Medium - Very High
Invasive weed species	
Notes	Refer to EVCs 2 and 3

EVC 2	**Coast Banksia Woodland 2**
Habitat Score	36 - 56
Status	Vulnerable
Conservation Significance	Medium - Very High
Invasive weed species	Angled Onion, Bridal Creeper, Myrtle-leaf Milkwort, Jew, Boneseed, Agapanthus, African Boxthorn, Pines
Notes	Overall, very weedy in ground stratum

EVC 3	**Swamp Scrub 53**
Habitat Score	40 - 48
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Cape Ivy, Sweet Pittosporum, Mirror Bush
Notes	Merges into Coast Banksia Woodland

SITE 25 NAME Seaford Foreshore Reserve

Site Significance	Very High
Area (Ha)	47.61
Tenure	Public
Biosites	Regional (#4653)
Site notes	Patchy linear remnant, high level of weed invasion in Coast Banksia Woodland.
Access problems	No

EVC 1	**Coast Banksia Woodland 2**
Habitat Score	28 - 54
Status	Vulnerable
Conservation Significance	Medium - Very High
Invasive weed species	Boxthorn, Bridal Creeper, Cape Ivy, Panic Veldt-grass, Angled Onion, Mirror Bush, Myrtle-leaf Milkwort
Notes	Merges into Coastal Dune Scrub / Dune Grassland Mosaic

EVC 2	**Coastal Dune Scrub / Coastal Dune Grassland Mosaic 1**
Habitat Score	43 - 46
Status	Endangered
Conservation Significance	Low
Invasive weed species	Gazania, African Boxthorn, Marram Grass
Notes	Fairly intact remnant. Some weed invasion and some erosion (c. 15 % cover of bare sand)

SITE 26 NAME Kananook Creek South, Beach St to Nepean Hwy

Site Significance	High
Area (Ha)	1.63
Tenure	Public
Biosites	Regional (#4653)
Site notes	Swamp Scrub and Banksia Woodland are mapped together as a complex. No condition scores but indicative conservation status is based on aerial photos and brief observation.
Access problems	No

EVC 1 **Coast Banksia Woodland / Swamp Scrub Mosaic 904**

Status Endangered

Conservation Significance	Low - High
Notes	Refer to EVC 2 and 3

EVC 2 **Coast Banksia Woodland 2**

Status	Vulnerable
Conservation Significance	Low - Medium
Notes	Mostly Degraded

EVC 3 **Swamp Scrub 55**

Status	Endangered
Conservation Significance	Low - High
Notes	Mostly degraded, narrow remnant

SITE 27 NAME Kananook Creek Reserve, Frankston S.L.S.C.

Site Significance	High
Area (Ha)	0.79
Tenure	Public
Biosites	None
Site notes	Some good remnants on dunes subject to user-pressure and weed invasion but management current. Scattered trees only in cultivated park section. Site subject to detailed vegetation study (Wilson et al. 2005).
Access problems	No

EVC 1	**Coastal Dune Scrub 160**
Habitat Score	16 - 33
Status	Vulnerable
Conservation Significance	Medium - High
Invasive weed species	African Box-thorn, Mirror-bush, Bridal Creeper
Notes	Merges into Coast Banksia Woodland. Management of some areas includes weed control.

EVC 2	**Coast Banksia Woodland 2**
Habitat Score	20 - 41
Status	Vulnerable
Conservation Significance	Medium - High
Invasive weed species	Mirror-bush, African Box-thorn, Bridal Creeper, Gazania, Marram Grass
Notes	Patchy condition

EVC 3	**Coastal Dune Grassland 879**
Habitat Score	28 - 39
Status	Endangered
Conservation Significance	High
Invasive weed species	Marram-grass
Notes	Narrow strip with erosion from wind and user-pressure

SITE 28 NAME Seaford Wetlands

Site Significance	Very High
Area (Ha)	92.17
Tenure	Public
Biosites	National (#4657)
Site notes	The detailed study of the vegetation of Seaford Wetlands by Damian Cook (TBLD and AE 2005) has been used to assess much of this site. We have updated EVCs, esp. Wetland Formations. Damp Sands Herb-rich Woodland is present on the north-western and eastern boundaries. Plains Grassy Woodland 55 is represented by tree-only remnants including large old trees. Swamp Scrub 53 was generally species-poor / of low quality. A small representation of Saline Aquatic Meadow 842 is also present.
Access problems	No

EVC 1	**Tall Marsh 821**
Status	Endangered
Conservation Significance	Very High

EVC 2	**Damp Sands Herb-rich Woodland 3**
Habitat Score	32
Status	Vulnerable
Conservation Significance	High
Invasive weed species	Pines, Coast Wattle, Boxthorn, Mirror-bush, grassy weeds
Notes	Small degraded remnant on eastern side of Wetlands Reserve
EVC 3	**Brackish Aquatic Herbland 537**
Habitat Score	Not determined
Status	Vulnerable
Conservation Significance	Very High
EVC 4	**Brackish Wetland 656**
Status	Rare
Conservation Significance	Very High
Invasive weed species	Sharp Rush
EVC 5	**Aquatic Herbland 653**
Status	Endangered
Conservation Significance	Very High
EVC 6	**Plains Grassy Wetland125**
Habitat Score	42 - 54
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Couch, Sweet Vernal-grass, Yorkshire Fog, Brown-top Bent and Water Buttons.
Notes	In relatively good condition. A high cover of exotic grasses in places. Invasive woody weeds (Gorse, Blackberry and Coast Wattle) outside the patch threaten this remnant.

SITE 29 NAME Motorcycle / BMX Club, Seaford

Site Significance	High
Area (Ha)	3.38
Tenure	Public
Biosites	None
Site notes	The remnant vegetation is fragmented and degraded due to the bike tracks. Much of the site supports scattered indigenous trees only.
Access problems	Yes

EVC 1	**Heathy Woodland 48**
Habitat Score	31 - 35
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Tea-tree, Bridal Creeper, Kikuyu and Japanese Honeysuckle
Notes	Very degraded vegetation, with a high cover of weeds and understorey dominated by exotic grasses and bracken. Many large old trees present.

EVC 2	**Plains Grassy Woodland 55**
Habitat Score	21 - 26
Status	Endangered
Conservation Significance	High
Invasive weed species	Blackberry, Pampas Grass, Asparagus Fern, Bridal Creeper, Panic Veldt-grass, and Canary Grass
Notes	Also very degraded; species poor and high weed cover. The road reserve supports the higher quality vegetation.

SITE 30 NAME Frankston Freeway, Seaford

Site Significance	Very High
Area (Ha)	9.57
Tenure	Public
Biosites	Regional (#5098)
Site notes	Overall high quality with disturbed margins
Access problems	No

EVC 1	**Plains Grassy Woodland 55**
Habitat Score	42 -51
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Boxthorn, Blackberry
Notes	Dominates north and east sections of Freeway Reserve. Some scattered Red Gums at southern end.

EVC 2	**Heathy Woodland 48**
Habitat Score	43 - 52
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Blackberry, Boneseed, Asparagus
Notes	Margins of remnants deteriorate towards road but mown patches are favouring indigenous ground stratum species

EVC 3	**Swamp Scrub 53**
Habitat Score	25
Status	Endangered
Conservation Significance	High
Invasive weed species	Asparagus, herbaceous species
Notes	Patchy, disturbed remnants, merges into Plains Grassy Woodland and Heathy Woodland

EVC 4	**Plains Grassy Wetland 125**
Habitat Score	-
Status	Endangered
Conservation Significance	High
Invasive weed species	
Notes	

SITE 31 NAME Belvedere Reserve, Seaford

Site Significance	High
Area (Ha)	2.25
Tenure	Public
Biosites	None
Site notes	A disturbed remnant that requires weed control. Some areas have been recently burnt.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	29 - 44
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Tea-tree, Coast Wattle, Mirror Bush, Blackberry, Red-ink Weed, Rough Dog's-tail, and Bluebell Creeper.
Notes	Fragmented remnants due to tracks. Mostly degraded and supports a high cover of woody weeds.

EVC 2	**Swamp Scrub 55**
Habitat Score	36 - 43
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Blackberry, Coast Wattle, Paspalum and Panic Veldt-grass.
Notes	A thicket of Swamp Paperbark. Dry at the time of assessment. Species richness maybe higher during wetter months.

SITE 32 NAME Belvedere Bushland Reserve / Freeway Reserve

Site Significance	Very High
Area (Ha)	9.48
Tenure	Public
Biosites	None
Site notes	Ranges greatly in quality. A large proportion of the site supports a very high cover of Coast Tea-tree which is being managed by FCC and Friends Groups (L. Costermans pers. comm.). Continuing management will help to restore condition.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	36 - 57
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Tea-tree, Sweet Vernal-grass, Couch, Panic Veldt-grass, Onion Grass, Coast Wattle, and Sheep Sorrel
Notes	Some areas are heavily infested with Coast Tea-tree and Coast Wattle. In better quality areas, species diversity is much higher and good recruitment is occurring in the understorey.

EVC 2	**Sand Heathland 6**
Habitat Score	23 - 66
Status	Rare
Conservation Significance	Medium -Very High
Invasive weed species	Coast Tea-tree, Coast Wattle and Panic Veldt
Notes	A large range in vegetation quality. The best patch is young and regenerating, species diversity is high and weed cover low. Other areas support a very high cover of Coast Tea-tree.

EVC 3	**Swampy Woodland 937**
Habitat Score	49 - 56
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Sweet Pittosporum, Coast Wattle, Coast Tea-tree, Blackberry, Bridal Creeper
Notes	Moderate quality, but threatened by further weed invasion from adjoining Coast Tea-tree thickets.

SITE 33 NAME Proposed Freeway Reserve, Fulmar St, Carrum Downs

Site Significance	Very High
Area (Ha)	8.56
Tenure	Public
Biosites	None
Site notes	Fragmented patches of low - moderate quality remnant vegetation. Control of woody weeds is required.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	34 - 61
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Tea-tree, Bridal Creeper, Sweet Pittosporum, Boneseed, Ragwort, Panic Veldt-grass, Pine, Montpellier Broom, Brown-top Bent and Kikuyu
Notes	The vegetation is dominated by Coast Tea-tree in the northern section, with one young patch showing good species diversity. Overall, vegetation condition is better in the south despite the numerous tracks that has fragmented the patch.

EVC 2	**Swampy Woodland 937**
Habitat Score	43 - 52
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Blackberry, Boneseed, Bridal Creeper, Spear Thistle, Bluebell Creeper, and Cat's Ear.
Notes	A thicket of Swamp Paperbark, with Swamp Gum showing some dieback. Vegetation closest to Ballarto Rd is more disturbed.

SITE 34 NAME G. K. Tucker Reserve, Carrum Downs

Site Significance	High
Area (Ha)	1.60
Tenure	Public
Biosites	None
Site notes	The majority of the site supports scattered indigenous (Coast Manna Gum, Narrow-leaf Peppermint and Red Gum) and planted trees and shrubs with the ground-layer dominated by exotic grasses. Site significance high due to the conservation status of Grassy Woodland.
Access problems	No

EVC 1 Grassy Woodland 175

Habitat Score	22 - 34
Status	Endangered
Conservation Significance	High
Invasive weed species	Blackberry, Boneseed, Coast Wattle, Cape Ivy, Sweet Pittosporum, Coast Tea-tree, Kikuyu, Spotted Gum, Cedar Wattle, Panic Veldt-grass and Annual Veldt-grass.
Notes	This vegetation only makes up a small proportion of the site. Weeds have reduced understorey diversity.

SITE 35 NAME Carrum Downs Secondary College

Site Significance	Medium
Area (Ha)	4.97
Tenure	Private
Biosites	None
Site notes	A large area in the south has been cleared for school buildings. The remaining vegetation in the south-west is dominated by Bracken with one small area showing recruitment of other species. Northern remnant is patchy with species-rich remnants interspersed with heavily weed invaded areas.
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	40 - 60
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Tea-tree, Coast Wattle, Tree Lucerne, Blackberry, Tree Lucerne, Montpellier Broom, Cootamundra Wattle, Montbretia, Red-ink Weed, Freesia, Yorkshire Fog, Panic Veldt-grass, Annual Veldt-grass.
Notes	

SITE 36 NAME Taylors Road, Skye

Site Significance	Low - medium
Area (Ha)	3.57
Tenure	Private
Biosites	None
Site notes	Two patches of Heathy Woodland of moderate quality - intermittently grazed; includes large old trees. Some weed control by owners. Merges into Swampy (Riparian) Woodland to south and tree-only remnants of Plains Grassy Woodland to west.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	27 - 37
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Wattle, Red-Ink Weed, Willows, Blackberry, Pines, exotic grasses
Notes	

SITE 37 NAME Long Island Country Club, Frankston

Site Significance	Medium
Area (Ha)	3.26
Tenure	Private
Biosites	None
Site notes	Most of the vegetation on this golf course is scattered trees with an exotic or weedy understorey (e.g. Coast Tea-tree). Small stands of remnant vegetation that persist suggest it was previously a mosaic of Heathy Woodland and Swampy Woodland.

EVC 1 Heathy Woodland 48

Habitat Score	31 - 35
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Tea-tree, Mirror Bush, Blackberry, Kikuyu Grass, Coast Wattle, Boneseed, Mahogany Gum
Notes	Heavily modified by weed invasion. Small area where woody weeds have been controlled shows good recruitment of understorey species.

SITE 38 NAME Peninsula Country Golf Club, Frankston

Site Significance Very High

Area (Ha) 32.13

Tenure Private

Biosites None

Site notes Highly fragmented Heathy Woodland across most of site with small localised patches of other EVCs. Best vegetation is in the north-east corner, abutting The Pines Flora and Fauna Reserve (Sand Heathland and Heathy Woodland).

EVC 1 **Heathy Woodland 48**

Habitat Score 28 - 45

Status Depleted

Conservation Significance Low - Medium

Invasive weed species Coast Tea-tree, Sweet Vernal Grass, Coast Wattle, Cotoneaster, Asparagus Fern, Sweet Pittosporum, Wandering Jew, Cedar Wattle, Arum Lily, Spanish Heath, Tree Heath, Blackberry

Notes Most vegetation remnants at this site belong to this EVC but quality is variable (generally moderate to poor) due to weed invasion and fragmentation.

EVC 2 **Swampy Woodland 937**

Habitat Score 65

Status Endangered

Conservation Significance Very High

Invasive weed species Blackberry, Coast Wattle, Tree Heath

Notes Small remnant in drainage depression, grades into Heathy Woodland

EVC 3 **Riparian Scrub 191**

Habitat Score 24

Status Vulnerable

Conservation Significance Medium

Invasive weed species Sweet Pittosporum, Mirror Bush, Cedar Wattle, Coast Wattle, Blackberry

Notes Occupies a swale in the north east of the site. The dense Scented Paperbark is in very poor heath (canopy mostly dead) possibly due to changed hydrological conditions. Woody weeds recruiting.

EVC 4 **Sand Heathland 6**

Habitat Score 68

Status Rare

Conservation Significance Very High

Invasive weed species Pines, Coast Wattle, Coast Tea-tree

Notes Restricted to high dune in the north-east of site, contiguous with The Pines Flora and Fauna Reserve.

EVC 5 **Damp Heathy Woodland 793**

Habitat Score 24

Status Vulnerable

Conservation Significance Medium

Invasive weed species Sallow Wattle, Kikuyu, Cape Ivy, Blackberry, Rambling Dock, Red-ink Weed

Notes Highly modified by invasion of woody weeds and dieback of eucalypts. Patches of Swamp Paperbark suggest this EVC existed in a mosaic with Swamp Scrub.

SITE 39 NAME The Pines Flora and Fauna Reserve, Frankston North

Site Significance	Very High
Area (Ha)	113.29
Tenure	Public
Biosites	State (# 4916)
Site notes	Large site with important remnants of at least six EVCs (not all sampled). Strong links to remnants to north and east - could be improved - See also Sites 40 and 41. Records of regionally significant *Leporella fimbriata* (L. Costermans pers. comm.) History of disturbance but current management includes weed control – necessary to maintain very high conservation values.
Access problems	No

EVC 1	**Sand Heathland 6**
Habitat Score	68 - 72
Status	Rare
Conservation Significance	Very High
Invasive weed species	Pines, Coast Wattle
Notes	High quality remnants, some regenerating from ecological burns, weed control continuing. Very few weeds throughout. Scattered, emergent Coast Manna Gum.

EVC 2	**Swampy Riparian Woodland 83**
Habitat Score	41 - 53
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Boneseed
Notes	Regenerating well after fire, some old trees

EVC 3	**Riparian Scrub 191**
Status	Vulnerable
Conservation Significance	High - Very High

EVC 4	**Damp Heathy Woodland 793**
Status	Vulnerable
Conservation Significance	High - Very High

EVC 5	**Grassy Woodland 175**
Status	Endangered
Conservation Significance	High - Very High

SITE 40 NAME Addition to the Pines - Ballarto Rd, Frankston

Site Significance	High
Area (Ha)	3.50
Tenure	Public
Biosites	State (# 4916)
Site notes	Patchy, history of disturbance including surrounding orchard management
Access problems	No

EVC 1 **Damp Heathy Woodland 793**

Habitat Score	40 - 47
Status	Vulnerable
Conservation Significance	High
Invasive weed species	Blackberry, Pines
Notes	Blackberry covers large areas

SITE 41 NAME The Pines Flora & Fauna Reserve - Dara Land, Frankston

Site Significance	Very High
Area (Ha)	58.15
Tenure	Public
Biosites	None
Site notes	Overall, this site is in good condition. Control of woody weeds is required.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	54 - 77
Status	Depleted
Conservation Significance	Medium - High
Invasive weed species	Coast Wattle, Coast Tea-tree, Boneseed, Pine, Panic Veldt-grass, Sweet Vernal-grass, Cape Weed and Sheep Sorrel.
Notes	Overall the site supports good quality vegetation. As to be expected, the edges of the patch are more disturbed.
EVC 2	**Sand Heathland 6**
Habitat Score	52 - 58
Status	Rare
Conservation Significance	High
Invasive weed species	Coast Tea-tree
Notes	Located on dune tops in the north of the site; the majority of this area has been recently burnt. Species richness is not high, but weed cover is low.
EVC 3	**Swampy Riparian Woodland 83**
Habitat Score	46 - 58
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Boneseed, White Arum-lily, Zantedeschia, Coast Wattle, Pines, Bridal Creeper
Notes	Some reasonable areas; large old trees relatively common
EVC 4	**Damp Heathy Woodland 793**
Habitat Score	55
Status	Vulnerable
Conservation Significance	Very High
Invasive weed species	Blackberry, Boneseed, Coast Wattle, Bridal Creeper, Pines
Notes	Merges into Swampy Woodland

SITE 42 NAME McClelland Dr / Boggy Creek, Langwarrin

Site Significance	High
Area (Ha)	27.09
Tenure	Private
Biosites	None
Site notes	Some good remnants of Heathy Woodland along Valley Road, limited access.
Access problems	No

EVC 1	**Swampy Woodland 937**
Habitat Score	27
Status	Endangered
Conservation Significance	High
Invasive weed species	Boneseed, Pines, Coast Wattle, Blackberry, Sweet Pittosporum
Notes	Severely disturbed remnant on Boggy Creek; understorey cleared in past now dominated by exotic species.

EVC 2	**Heathy Woodland 48**
Habitat Score	36 - 53
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Wattle, Coast Tea-tree, Blackberry, Pampas Grass, exotic grasses (esp. Sweet Vernal-grass and Fog-grass)
Notes	Good examples along Valley Road

SITE 43 NAME Freeway Reserve, north of Skye Rd, Frankston

Site Significance	Low - Medium
Area (Ha)	1.42
Tenure	Public
Biosites	None
Site notes	Main values in tree canopy (including large old trees); understorey very degraded. Trees also dead or dying in some areas.

EVC 1	**Heathy Woodland 48**
Habitat Score	24 - 36
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Panic Veldt-grass, Coast Wattle, Wandering Jew, Cape Ivy, Morning Glory, Pines, Willows, Blackberry
Notes	Understorey dominated by weeds and bracken.

SITE 44 NAME Freeway Reserve & adjacent land, south of Skye Rd, Frankston

Site Significance	High - Very High
Area (Ha)	8.59
Tenure	Public
Biosites	None
Site notes	Condition of native vegetation throughout site is poor with some areas (e.g. patches to the south) now only scattered trees. The high conservation status of the EVCs represented gives the site an elevated conservation significance.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	40 - 49
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Blackberry, Morning Glory, Bridal creeper, Wandering Jew, Boneseed, Sallow Wattle, Sweet Pittosporum, Pines
Notes	Degraded Heathy Woodland, good tree layer, poor diversity in the understorey.
EVC 2	**Damp Heathy Woodland 793**
Habitat Score	24 - 43
Status	Vulnerable
Conservation Significance	Medium - High
Invasive weed species	Blackberry, Coast Wattle, Boneseed, Sweet Pittosporum, Coast Tea-tree
Notes	Understorey dominated by Bracken. Some areas severely weed infested with native canopy trees in very poor heath.
EVC 3	**Swamp Scrub 53**
Habitat Score	24 - 31
Status	Endangered
Conservation Significance	High
Invasive weed species	Boneseed, Blackberry, Bridal Creeper, Tree Lucerne, Pampas Grass, Cabbage Tree, Grey Sallow, Spike Rush, Sweet Pittosporum
Notes	Degraded, low species diversity, occasional emergent Swamp Gums, some canopy death associated with Swamp Paperbark, quite wet at time of survey
EVC 4	**Swampy Woodland 937**
Habitat Score	24 - 47
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Blackberry, Sweet Pittosporum, Cotoneaster, Coast Wattle, Pines, Spanish Heath, Boneseed, Sweet Briar, Sweet Vernal Grass
Notes	Scattered Swamp Gum with mix of indigenous and weedy understorey. Very localised patches of Swamp Scrub present within this EVC.

SITE 45 NAME McClelland Drive, Pioneer Quarry, Tamarisk Wetland Langwarrin

Site Significance	Very High
Area (Ha)	23.04
Tenure	Private
Biosites	None
Site notes	Very patchy vegetation quality with large expanses of the site being primarily exotic vegetation (indicative of past vegetation removal). Serious weed invasions. Vegetation of highest significance is the Riparian Scrub and Wetland complex associated with the drainage line in the east.
Access problems	Yes. Large site with few access points or tracks.

EVC 1	**Heathy Woodland 48**
Habitat Score	29 - 55
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Wattle, Coast Tea-tree, Agapanthus, Sweet Pittosporum, Pines, Boneseed, Spanish Heath, Blackberry, Bluebell Creeper, Cootamundra Wattle
Notes	Patchy quality - generally very poor. Tree layer missing in some places. Very high cover of woody weeds. Some localised depressions support degraded swampy vegetation but these areas are too modified to be mapped as native vegetation.
EVC 2	**Sand Heathland 6**
Habitat Score	63
Status	Rare
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Pines, Coast Tea-tree
Notes	Restricted to dune slopes (NE aspect), this area of Heathland retains a high indigenous species diversity. Density of recruiting Coast Manna Gum suggests return to Heathy Woodland (i.e. Heathland structure may be the result of past clearing)
EVC 3	**Riparian Scrub 191**
Habitat Score	43-62
Status	Vulnerable
Conservation Significance	High -Very High
Invasive weed species	Pampas Grass, Blackberry, Drain Sedge, Grey Sallow
Notes	Substantially intact patch, with very dense canopy of Scented Paperbark in north-west of site, following drainage line. The waterbodies south of this patch appear to be derived from this EVC (dead paperbarks throughout permanently inundated section).

SITE 46 NAME Studio Park, Langwarrin

Site Significance	Very High
Area (Ha)	17.98
Tenure	Public
Biosites	None
Site notes	Intact Heathy Woodland grading to Sand Heathland on dunes, and Riparian Scrub and Swampy Woodland in depressions and drainage lines.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	57 - 82
Status	Depleted
Conservation Significance	High
Invasive weed species	Pines, Coast Wattle, Coast Tea-tree, Sweet Pittosporum, Spanish Heath, Agapanthus
Notes	Weeds are mostly confined to the adjoining sculpture park. Generally good quality vegetation. Some localised patches of Riparian Scrub and Swampy Woodland too small to map.

EVC 2	**Sand Heathland 6**
Habitat Score	75
Status	Rare
Conservation Significance	Very High
Invasive weed species	Cat's Ear
Notes	Good quality vegetation, very few weeds and relatively high species diversity. Small area.

EVC 3	**Swampy Woodland 937**
Habitat Score	39 - 49
Status	Endangered
Conservation Significance	High -Very High
Invasive weed species	Sweet Pittosporum, Pines,
Notes	Fairly small area, some canopy death, few large trees, some disturbance

SITE 47 NAME DPI - Frankston North

Site Significance	Very High
Area (Ha)	5.33
Tenure	Public
Biosites	None
Site notes	Much of site regenerating from history of agricultural research. A range of EVCs supported in relatively good condition. Artificial wetland vegetation not sampled.
Access problems	No

EVC 1	**Sand Heathland 6**
Habitat Score	57
Status	Rare
Conservation Significance	High
Invasive weed species	Coast Tea-tree and Coast Wattle
Notes	Recently burnt and showing strong recruitment of woody weeds.
EVC 2	**Swamp Scrub 53**
Habitat Score	60 - 65
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle and Blackberry
Notes	Good quality vegetation
EVC 3	**Damp Sands Herb-rich Woodland 3**
Habitat Score	43 - 51
Status	Rare
Conservation Significance	High
Invasive weed species	Coast Wattle, Bridal Creeper, Ivy
Notes	Occupies small 'reserve' in north-east of site
EVC 4	**Damp Heathy Woodland 793**
Habitat Score	33
Status	Vulnerable
Conservation Significance	High
EVC 5	**Swampy Woodland 937**
Habitat Score	40 - 60
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Boneseed, Sweet Vernal-grass, Panic Veldt-grass, Toowoomba Canary-grass, and other grassy weeds
Notes	A small linear patch running parallel to Ballarto Road; includes large old trees. Quality varies substantially.
EVC 6	**Damp Heathland 710**
Habitat Score	34
Status	Rare
Conservation Significance	High

SITE 48 NAME Little Boggy Creek Reserve, Stevens Rd Reserve, Lexton Drive, Langwarrin

Site Significance	Very High
Area (Ha)	8.78
Tenure	Public
Biosites	None
Site notes	This site supports a range of EVCs of variable, but overall good, condition. Dieback is evident and weed control is required. Previously included quarry site - deterred by owner from visiting since 'all vegetation approved for removal'.
Access problems	No

EVC 1	**Swampy Riparian Woodland 83**
Habitat Score	39 - 54
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Blackberry, Mirror Bush, Wandering Jew, Sweet Pittosporum, Spanish Heath, Boneseed, Bluebell Creeper, Sweet Vernal-grass
Notes	Associated with Boggy Creek, in relatively good condition, but dieback is evident and weeds require control.

EVC 2	**Damp Heathy Woodland 793**
Habitat Score	36 - 58
Status	Vulnerable
Conservation Significance	High - Very High
Invasive weed species	Bluebell Creeper, Coast Wattle, Boneseed, Blackberry, Sweet Pittosporum and Sweet Vernal-grass
Notes	Merges into Heathy Woodland upslope Bluebell Creeper particularly high cover on creek

EVC 3	**Swamp Scrub 53**
Habitat Score	41
Status	Endangered
Conservation Significance	Very High
Invasive weed species	White Arum-lily, Bluebell Creeper, Panic Veldt-grass, Sweet Pittosporum and Blackberry.
Notes	Swamp Paperbark is dying and is now predominantly weeds, Common Reed and Cumbungi.

EVC 4	**Heathy Woodland 48**
Habitat Score	38 - 48
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Sweet Pittosporum, Cluster Pine, Boneseed, Montpellier Broom, Coast Wattle, Blackberry, Cotoneaster
Notes	Fairly disturbed in past and current user pressure, path use, and garden refuse dumping.

SITE 49 NAME Boggy Creek, Quarry Rd, Appleberry Ave, Langwarrin

Site Significance	Very High
Area (Ha)	24.87
Tenure	Both?
Biosites	None
Site notes	Very patchy vegetation quality with large areas invaded by weeds; therefore delineation of EVCs is masked where understorey largely modified.
Access problems	No

EVC 1	**Riparian Scrub 191**
Habitat Score	54 - 66
Status	Vulnerable
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Blackberry, Boneseed, Pine, Gorse, Bluebell Creeper and Panic Veldt-grass
Notes	Located on the east side of the creek, this thicket of Scented Paperbark merges into Heathy Woodland on the edge of the patch (which is too small to map).
EVC 2	**Swamp Scrub 53**
Habitat Score	38 - 51
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Blackberry, Coast Wattle, Cape Ivy, White Arum-lily, Pampas Grass, Three-cornered Garlic and Willow
Notes	This EVC supports patches of Swamp Paperbark amongst large patches of Common Reed. Weed cover is high and many of the few Swamp Gums that are present are dead.
EVC 3	**Swampy Riparian Woodland 83**
Habitat Score	31 - 53
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Blackberry, Ivy, Sweet Pittosporum, Bluebell Creeper, Coast Wattle, Willow, Bridal Creeper, Pampas Grass, White Arum-lily, Jew, Angle Onion
Notes	Areas of reasonable quality but large sections of degraded vegetation; merges into Heathy Woodland upslope but generally too small to map.

SITE 50 NAME Burdetts Quarry, Langwarrin

Site Significance	Very High
Area (Ha)	74.60
Tenure	Private
Biosites	None
Site notes	Access denied. Heathy Woodland apparently dominant EVC, with Swampy Riparian Woodland and Swamp Scrub (J. Yugovic pers. comm.); weeds include Sallow Wattle, Flax-leaf Broom, Coast Tea-tree.
Access problems	Yes

EVC 1	**Heathy Woodland 48**
Habitat Score	Not determined
Status	Depleted
Conservation Significance	Medium ?
Invasive weed species	
Notes	

EVC 1	**Swampy Riparian Woodland 83**
Habitat Score	Not determined
Status	Endangered
Conservation Significance	High ?
Invasive weed species	
Notes	

EVC 1	**Swamp Scrub 53**
Habitat Score	Not determined
Status	Endangered
Conservation Significance	High ?
Invasive weed species	
Notes	

SITE 51 NAME Harold Road, Skye

Site Significance	Medium
Area (Ha)	5.19
Tenure	Private
Biosites	None
Site notes	History of disturbance, possibly grazed in past; large patches of Blackberry and grassy weeds. Heathy Woodland dominates but apparently more Swampy Woodland at eastern end (impenetrable Blackberry thickets).
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	34 - 48
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Blackberry, Agapanthus, Cluster Pine, Ivy, grassy weeds
Notes	

SITE 52 NAME Highview Road, Skye

Site Significance	High
Area (Ha)	11.59
Tenure	Private
Biosites	None
Site notes	No access permitted
Access problems	Yes

EVC 1 **? Damp Heathy Woodland 793**

Habitat Score	?45
Status	Vulnerable
Conservation Significance	High
Invasive weed species	
Notes	

EVC 2 **? Heathy Woodland 48**

Habitat Score	?45
Status	Depleted
Conservation Significance	Medium
Invasive weed species	
Notes	

EVC 3 **? Swamp Scrub 53**

Habitat Score	?30
Status	Endangered
Conservation Significance	? High
Invasive weed species	
Notes	

SITE 53 NAME 1005 Dandenong-Hastings Road, Skye

Site Significance	Very High
Area (Ha)	2.06
Tenure	Private
Biosites	None
Site notes	High quality site but patches of highly invasive weeds including Blackberry and Pittosporum threaten existing values
Access problems	No

EVC 1	**Riparian Scrub 191**
Habitat Score	35 - 68
Status	Vulnerable
Conservation Significance	High - Very High
Invasive weed species	Blackberry, Ivy, Sweet Pittosporum, Coast Wattle, grassy weeds
Notes	May have been Swamp Woodland in past (old stumps); majority of EVC in good condition
EVC 2	**Damp Sands Herb-rich Woodland 3**
Habitat Score	46 - 58
Status	Vulnerable
Conservation Significance	High - Very High
Invasive weed species	Sweet Pittosporum, Blackberry
Notes	Majority of EVC in very good condition

SITE 54 NAME McKays Road, 1205 -1209 Dandenong - Hastings Rd, Langwarrin

Site Significance	High
Area (Ha)	7.59
Tenure	Private
Biosites	None
Site notes	Apparently some intact areas of Heathy Woodland / Damp Heathy Woodland / Swamp Scrub (possibly Swampy Woodland and/or Swampy Riparian Woodland. Sweet Pittosporum and Sallow Wattle (and a range of other weed species) are invading.
Access problems	Yes

EVC 1	**? Heathy Woodland 48**
Habitat Score	? 35
Status	Depleted
Conservation Significance	?Medium
Invasive weed species	Coast Wattle, Sweet Pittosporum, Pines, Bluebell Creeper, Red-Ink Weed, grassy weeds
Notes	
EVC 2	**?Damp Heathy Woodland 793**
Habitat Score	? 40
Status	Vulnerable
Conservation Significance	High
Invasive weed species	
Notes	
EVC 3	**?Swamp Scrub 53**
Habitat Score	?50
Status	Endangered
Conservation Significance	?High
Invasive weed species	
Notes	

SITE 55 NAME 120 McKays Rd, 1265, 1271 Dandenong-Hastings Rd, Langwarrin

Site Significance	Medium
Area (Ha)	8.41
Tenure	Private
Biosites	None
Site notes	No access but apparently overall reasonable quality
Access problems	Yes

EVC 1 **Heathy Woodland 48**

Habitat Score	34 - 46?
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Wattle, Sweet Pittosporum, Pines, Bluebell Creeper, grassy weeds
Notes	Extent not determined

SITE 56 NAME Grassmere Road, Dandenong-Hastings Rd, Langwarrin

Site Significance	Very High
Area (Ha)	18.93
Tenure	Private
Biosites	None
Site notes	Most sites inaccessible; quality appears to vary but generally moderate to high quality remnants; presumed to be mostly Valley Heathy Forest. Remnants on small blocks when combined provide moderately high habitat values.
Access problems	Yes

EVC 1 **Valley Heathy Forest 127**

Habitat Score	36 - 51
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Montpellier Broom, Bluebell Creeper, Cedar Wattle, Agapanthus, grassy weeds
Notes	Patchy, slashing; some dieback but most eucalypts still healthy

SITE 57 NAME Kingston Road, Grassmere Rd, Langwarrin

Site Significance	Very High
Area (Ha)	23.86
Tenure	Private
Biosites	None
Site notes	Includes large, high quality remnants; apparently all Valley Heathy Forest. Weed management required throughout to protect values. Land-owners managing woody weed species achieve highest condition ratings. Moderate slashing regimes are also controlling weed invasion.
Access problems	Yes

EVC 1 **Valley Heathy Forest 127**

Habitat Score	46 - 63
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Bluebell Creeper, Sweet Pittosporum, Blackberry, Coast Wattle, Pines, Cootamundra Wattle, grassy weeds
Notes	

SITE 58 NAME Kingston Road, Karen Close, Langwarrin

Site Significance	High
Area (Ha)	5.08
Tenure	Private
Biosites	None
Site notes	Slashing and mowing of most of blocks decreases biodiversity but controls weed spread.
Access problems	Yes

EVC 1 **Valley Heathy Forest 127**

Habitat Score	25 - 35
Status	Endangered
Conservation Significance	High
Invasive weed species	Coast Wattle, Sweet Pittosporum, grassy weeds, esp. Sweet Vernal-grass
Notes	

SITE 59 NAME Monique Bushland Reserve, Langwarrin

Site Significance	Medium
Area (Ha)	1.64
Tenure	Public
Biosites	None
Site notes	Remnant, relatively intact (public park). Northern end is unfenced and mainly large trees with native understorey and mown grass
Access problems	No

EVC 1 Heathy Woodland 48

Habitat Score	43 - 57
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Sweet Vernal-grass, Coast Wattle, Cleavers, Rough Sow-thistle, Cape Weed, Great Brome
Notes	Some large trees, some understorey diversity, weed invasion fairly low

SITE 60 NAME Union Road, Matthew Crt, Cranbourne - Frankston

Site Significance	High
Area (Ha)	2.47
Tenure	Private
Biosites	None
Site notes	Very low quality, derived vegetation. Near Matthews Bridge the creek is dominated by Common Reed, Northern end invaded by Blackberry and surrounding vegetation is exotic grass; southern end is surrounded by residential blocks; creek is highly modified and invaded by Willow, Blackberry, Coast Wattle and garden escapees.
Access problems	No

EVC 1	**Swampy Riparian Woodland 83**
Habitat Score	16
Status	Endangered
Conservation Significance	High
Invasive weed species	Willow, Sweet Pittosporum, J. Honeysuckle, Blackberry, Pines, Coast Wattle, Cootamundra Wattle, Watsonia, Gorse, Pampas Grass, Tree Lucerne, English Broom, Three-c Garlic, Desert Ash, Veldt-grass
Notes	Derived vegetation, highly disturbed and modified, 10% cover achieved by Common Reed

SITE 61 NAME Aqueduct Reserve, Langwarrin

Site Significance	Low - Medium
Area (Ha)	2.34
Tenure	Public
Biosites	None
Site notes	Remnant of patchy quality. East side of patch far more degraded and weed invaded, canopy cover greatly reduced
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	25 - 51
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Wattle, Great Brome, Sweet Vernal-grass, Blackberry, Sweet Pittosporum, Pines, Tree Lucerne, Japanese Honeysuckle
Notes	Low-moderate species diversity, a few large trees, exotic grasses prevalent in the understorey.

SITE 62 NAME Langwarrin Pony Club

Site Significance	High
Area (Ha)	2.61
Tenure	Both
Biosites	None
Site notes	Degraded vegetation dissected by tracks.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	44 - 50
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Sweet Pittosporum, Blackberry, Coast Wattle, Coast Tea-tree, Pines, Panic Veldt-grass, Sweet Pittosporum.
Notes	Good tree cover but poor diversity in understorey (high cover of Bracken).
EVC 2	**Swampy Riparian Woodland 83**
Habitat Score	30
Status	Endangered
Conservation Significance	High
Invasive weed species	Blackberry, Sweet Pittosporum, Pines, Japanese Honeysuckle, English Ivy, Yorkshire Fog, Coast Wattle
Notes	Restricted to drainage line west of Pony Club. High cover of weeds.

SITE 63 NAME 385 -445 North Road, Langwarrin

Site Significance	High
Area (Ha)	3.23
Tenure	Private
Biosites	None
Site notes	This site predominantly supports scattered trees over a planted/exotic understorey. The significance of the site is elevated due to the conservation status of Grassy Woodland.
Access problems	Yes

EVC 1 **Grassy Woodland 175**

Habitat Score	22
Status	Endangered
Conservation Significance	High
Invasive weed species	Sweet Pittosporum, Pine, Montpellier Broom, Yorkshire Fog, Sweet Vernal-grass and Bluebell Creeper.
Notes	This patch has low species diversity (Bracken dominated in the understorey) and supports a high cover of weeds.

SITE 64 NAME 1395-1461 Dandenong-Hastings Rd, 1 - 31 Bellbird Crt, Langwarrin

Site Significance	Very High
Area (Ha)	21.87
Tenure	Private
Biosites	None
Site notes	Vegetation condition variable across site with varying regimes of slashing, stock access and weed control. Very high values in Valley Heathy Forest in roadside of Bellbird Court (south side).
Access problems	Yes

EVC 1	**Valley Heathy Forest 127**
Habitat Score	27 - 57
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Flax-leaf Broom, Cedar Wattle, Pines, grassy weeds
Notes	Varies from one property to the next with varying regimes of slashing, stock grazing and trampling, and weed control. Very high values in roadside of Bellbird Court (south side).
EVC 2	**Swampy Woodland 937**
Habitat Score	29 - 33
Status	Endangered
Conservation Significance	High
Invasive weed species	Blackberry, Cherry Plum, Pines, weedy grasses, esp. Sweet Vernal-grass
Notes	Not accurately sampled, probably merges into Valley Heathy Forest upslope.

SITE 65 NAME 1555-1575 Dandenong-Hastings Rd, Leisureland Dr, Langwarrin

Site Significance	Very High
Area (Ha)	10.72
Tenure	Private
Biosites	None
Site notes	Variable quality. Parts of the patch are fragmented and degraded; the core area however is in good condition.
Access problems	Yes

EVC 1	**Valley Heathy Forest 127**
Habitat Score	31 - 46
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Sweet Pittosporum, Blackberry, Coast Wattle, Flax-leaf Broom, Pine, Cotoneaster, English Ivy, Bluebell Creeper, Sweet Vernal-grass and Yorkshire Fog
Notes	The road reserve supporting this vegetation is degraded and has a high cover of weeds. It has affinities with Swampy Woodland. On private property, vegetation of this EVC is in moderate condition.
EVC 2	**Grassy Woodland 175**
Habitat Score	42 - 50
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Sweet Pittosporum and Sweet Vernal-grass
Notes	In good condition. Merges into Valley Heathy Forest to the east and Heathy Woodland to the west.
EVC 3	**Heathy Woodland 48**
Habitat Score	42 - 49
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Sweet Pittosporum and Sweet Vernal-grass
Notes	This vegetation has been fragmented due to development, but in relatively good condition.

SITE 66 NAME Centre Rd, Faith Crt, Langwarrin

Site Significance	Very High
Area (Ha)	7.17
Tenure	Private
Biosites	None
Site notes	This vegetation remnant spans numerous private properties and has been highly dissected by housing, especially in the south eastern section. The most intact remnants are in the larger holdings in the west.
Access problems	Yes - couldn't get to area mapped as Heathy Woodland in the south-east

EVC 1	**Heathy Woodland 48**
Habitat Score	46-59
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Wattle, Pines, Boneseed, Sweet Vernal, Blackberry, Bluebell Creeper, Coast Tea-tree
Notes	Generally intact remnants, although fragmented, especially to the east of the site, due to subdivisions and building.
EVC 2	**Swampy Woodland 937**
Habitat Score	48
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Sweet Pittosporum, Coast Wattle, Blackberry, Boneseed
Notes	This EVC is in a wide depression and has been substantially cleared for residential developments, leaving highly fragmented small patches.
EVC 3	**Valley Heathy Forest 127**
Habitat Score	58
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Sweet Pittosporum, Blackberry, Bluebell Creeper, Coast Wattle
Notes	This EVC is represented by a relatively large patch in the north west of the site and is largely intact. Vegetation has affinities with Herb-rich Foothill Forest.

SITE 67 NAME Sunnybank Road, Langwarrin

Site Significance	Very High
Area (Ha)	8.72
Tenure	Private
Biosites	None
Site notes	Scattered remnants remain on house blocks, vegetation around houses largely cleared, weed invasion high, vegetation quality is patchy.
Access problems	yes - couldn't get to all of the site, particularly the southern section

EVC 1	**Heathy Woodland 48**
Habitat Score	24 - 49
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Wattle, Pines, Blackberry, Sweet Vernal-grass, Sheep Sorrel, Coast Tea-tree
Notes	Widespread and ranges in vegetation condition. Biggest weed problems are Blackberry and Coast Wattle. Weed invasion high, some species diversity in the understorey (very patchy), few large trees were observed
EVC 2	**Swampy Woodland 937**
Habitat Score	26 - 43
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Pines, Blackberry, Yorkshire Fog, Wood Forget-me-not, Ribwort, Prunus
Notes	Low species diversity, highly weed invaded, thin strip associated with a drainage line, few large trees observed, frogs were heard calling

SITE 68 NAME Donald Road, Langwarrin South

Site Significance	Very High
Area (Ha)	19.43
Tenure	Private
Biosites	None
Site notes	A fragmented site that has been impacted by housing development.
Access problems	Yes

EVC 1 **Valley Heathy Forest 127**

Habitat Score	41 - 58
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Sweet Vernal-grass and Yorkshire Fog.
Notes	Consists of small remnants near Altarnun Road and larger remnants out the back of private properties. The majority of sections support scattered trees (including Long-leaf Peppermint, Silver-leaf Stringybark and Swamp Gum)

SITE 69 NAME Victory Road, Donald Rd, Langwarrin

Site Significance	High
Area (Ha)	23.66
Tenure	Private
Biosites	None
Site notes	The core patch between Donald Road and Victory Road supports good quality vegetation, with relatively high species diversity.
Access problems	Yes

EVC 1	**Heathy Woodland 48**
Habitat Score	40 - 71
Status	Depleted
Conservation Significance	Medium - High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Coast Tea-tree, Blackberry, Pine, Sweet Vernal-grass, Yorkshire Fog .
Notes	High quality vegetation towards the eastern end of Donald Road and includes Land for Wildlife properties. Western end of the patch is more degraded.
EVC 2	**Swampy Woodland 937**
Habitat Score	24 - 51
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Blackberry, Sweet Pittosporum, Boneseed, Montpellier Broom, Three-corner Garlic, Sweet Vernal-grass and Prairie Grass.
Notes	This EVC runs parallel to Donald Road. Overall it is quite degraded and supports a high cover of weeds

SITE 70 NAME 705 Robinsons Rd, Langwarrin

Site Significance	High
Area (Ha)	2.25
Tenure	Private
Biosites	None
Site notes	No access, but site appears degraded. Swamp Gums are showing dieback and control of woody weeds is required.
Access problems	Yes

EVC 1 **Swampy Woodland 937**

Habitat Score	23
Status	Endangered
Conservation Significance	High
Invasive weed species	Sweet Pittosporum, Pine, Blackberry, Yorkshire Fog, Prairie Grass and Sweet Vernal-grass.
Notes	The area that could be assessed is very degraded and weed invaded.

SITE 71 NAME Camp Road, Langwarrin South

Site Significance	Very High
Area (Ha)	3.99
Tenure	Private
Biosites	None
Site notes	Site supports variable quality Swampy Woodland and Grassy Woodland. Control of woody weeds is required.
Access problems	Yes

EVC 1	**Swampy Woodland**
Habitat Score	33 - 49
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Sweet Pittosporum, Coast Wattle, Blackberry, Sweet Vernal-grass, Panic Veldt-grass.
Notes	Low -moderate quality patch. Species diversity varies depending on the cover of Swamp Paperbark.

EVC 2	**Valley Heathy Forest 127**
Habitat Score	22 - 39
Status	Endangered
Conservation Significance	High
Invasive weed species	Sweet Pittosporum, Pine, Coast Wattle and Cedar Wattle.
Notes	In parts heavily infested with woody weeds.

SITE 72 NAME West Road, Robinsons Rd, Langwarrin South

Site Significance	Very High
Area (Ha)	42.51
Tenure	Private
Biosites	Regional (# 5151) ?5210
Site notes	The main patch is in very good condition (includes Land for Wildlife properties). The quality deteriorates to the east and west and much of this area supports scattered indigenous and planted trees.
Access problems	Yes

EVC 1	**Heathy Woodland 48**
Habitat Score	35 - 64
Status	Depleted
Conservation Significance	Medium - High
Invasive weed species	Sweet Pittosporum, Coast Wattle, Sweet Vernal-grass, Brown-top Bent and Bluebell Creeper
Notes	Variable quality; the best patches located within the Nirvana Close road reserve and within the core area along Robinsons Road
EVC 2	**Valley Heathy Forest 127**
Habitat Score	27 - 65
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Blackberry, Flax-leaf Broom, Sweet Pittosporum, Coast Tea-tree, Cotoneaster, Pine, Asparagus, Sweet Vernal-grass, and Bluebell Creeper.
Notes	Despite the diversity of weeds, most of the vegetation is in good condition. The lowest quality patch is in the west along Robinsons Road.
EVC 3	**Swampy Woodland 937**
Habitat Score	31 - 54
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Sweet Pittosporum, Blackberry, Pampas Grass, Flax-leaf Broom, St Johns Wort, Pine, Sweet Vernal-grass, Canary Grass, Yorkshire Fog, Bulbil Watsonia and Spear Thistle.
Notes	This vegetation is degraded due to weed invasion, especially Blackberry.

SITE 73 NAME Gardener Road, Langwarrin South

Site Significance	Medium
Area (Ha)	9.94
Tenure	Private
Biosites	None
Site notes	Variable quality, but overall degraded due to weeds and clearing for development.
Access problems	Yes

EVC 1 **Heathy Woodland 48**

Habitat Score	29 - 47
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Tea-tree, Sweet Pittosporum, Wandering Jew, Sweet Vernal-grass, Coast Wattle, Montbretia, Morning Glory and Pine.
Notes	The best quality patches are in the southern end of Gardeners Road. Overall, vegetation is degraded and fragmented.

SITE 74 NAME Weeroona Road, Langwarrin South

Site Significance	High
Area (Ha)	1.19
Tenure	Private
Biosites	None
Site notes	Remnants with degraded and weed infested understorey
Access problems	yes - couldn't get to all of site

EVC 1	**Valley Heathy Forest 127**
Habitat Score	18 - 26
Status	Endangered
Conservation Significance	High
Invasive weed species	Coast Wattle, Montpellier Broom, Sweet Pittosporum, Panic Veldt-grass, Sweet Vernal-grass, Agapanthus, Spear Thistle
Notes	Low species diversity in understorey, high level of weed invasion, majority of site is this EVC

EVC 2	**Swamp Scrub 53**
Habitat Score	17
Status	Endangered
Conservation Significance	High
Invasive weed species	Sweet Pittosporum, Blackberry, Panic Veldt-grass, Sweet Vernal-grass, Montpellier Broom, Large Quaking-grass, Coast Wattle, Spear Thistle, Cat's Ear
Notes	Very small area, some tree death, high cover of weeds, disturbed, and low species diversity, associated with creekline (choked with Blackberry)

SITE 75 NAME 95 Highfield Dr., Langwarrin South

Site Significance	Very High
Area (Ha)	1.77
Tenure	Private
Biosites	None
Site notes	Intact remnant
Access problems	No

EVC 1	**Grassy Woodland 175**
Habitat Score	32 - 40
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Sweet Vernal-grass, Prairie Grass, Panic Veldt-grass, Mirror Bush, Blackberry
Notes	Low species diversity, understorey dominated by Bracken, weed infested, large trees present

SITE 76 NAME Highfield Dr., 385 Baxter - Tooradin Rd, Langwarrin

Site Significance	High
Area (Ha)	3.83
Tenure	Private
Biosites	None
Site notes	Remnants of patchy quality, very weed infested. Artificial wetland on property not assessed.
Access problems	yes - couldn't get access to the whole site

EVC 1	**Swampy Riparian Woodland 83**
Habitat Score	19 - 24
Status	Endangered
Conservation Significance	High
Invasive weed species	Blackberry, Sweet Pittosporum, Mirror Bush, Sweet Vernal-grass, Pines, Panic Veldt-grass, Toowoomba Canary-grass, Montpellier Broom
Notes	Highly disturbed and weed infested, lots of Eucalyptus tree death, canopy is dominated by Blackwood. An ephemeral creek runs through the site, High cover of Blackberry and some Swamp Paperbark
EVC 2	**Swamp Scrub 53**
Habitat Score	18
Status	Endangered
Conservation Significance	High
Invasive weed species	Blackberry, Sweet Pittosporum, Mirror Bush, Coast Wattle, Toowoomba Canary-grass, other grassy weeds
Notes	Very disturbed, Blackberry thicket in understorey. Swamp Paperbark forms a dense shrub layer with occasional emergent Swamp Gums and Blackwood
EVC 3	**Grassy Woodland 175**
Habitat Score	21- 24
Status	Endangered
Conservation Significance	High
Invasive weed species	Sweet Vernal-grass, Pines, Blackberry, Sweet Pittosporum, Yorkshire Fog, Panic Veldt-grass, Ribwort
Notes	Mostly derived vegetation, very disturbed, high cover of Bracken and Thatch-saw Sedge along with exotic grasses. Some planting along roadside (particularly of Spiny-headed Mat-rush). Small patch to the south-west of better quality though low diversity.

SITE 77 NAME 35 & 45 West Road, Langwarrin South

Site Significance	Very High
Area (Ha)	6.33
Tenure	Private
Biosites	None
Site notes	A large remnant on private property. Roadside vegetation also in good condition.
Access problems	Yes

EVC 1 **Valley Heathy Forest 127**

Habitat Score	37 - 50
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Coast Tea-tree, Sweet Pittosporum, Sweet Vernal-grass, Panic Veldt-grass, Yorkshire fog, and Bridal Creeper.
Notes	Moderate quality. High cover of exotic grasses in some places.

SITE 78 NAME 30 Victoria Road, Langwarrin South

Site Significance	Medium
Area (Ha)	2.09
Tenure	Private
Biosites	None
Site notes	Supports low - moderate quality vegetation. Access to site limited.
Access problems	yes

EVC 1	**Heathy Woodland 48**
Habitat Score	29 - 51
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Sweet Pittosporum, Coast Wattle, Coast Tea-tree, Pine, Red-ink Weed, Panic Veldt-grass, Sweet Vernal-grass and Couch.
Notes	Variable quality; front section is patchy and rare section looks in better condition but could not be accessed.
EVC 2	**Riparian Scrub 191**
Habitat Score	25 - 30
Status	Vulnerable
Conservation Significance	Medium - High
Invasive weed species	Sweet Pittosporum
Notes	This patch has been recently burnt and parts have been revegetated.

SITE 79 NAME 50 Victoria Road, Langwarrin South

Site Significance	High
Area (Ha)	1.57
Tenure	Private
Biosites	None
Site notes	Overall, this patch is degraded and weed control is required.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	31 - 48
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Sweet Pittosporum, Blackberry, Red-ink Bush, Sweet Vernal-grass, Panic Veldt-grass and Yorkshire Fog
Notes	This EVC varies in quality. Overall, species poor with low-moderate weed cover.
EVC 2	**Swampy Woodland 937**
Habitat Score	19 - 34
Status	Endangered
Conservation Significance	High
Invasive weed species	Blackberry, Drain Flat-sedge, Sweet Pittosporum, Paspalum and Water Couch.
Notes	Very degraded and infested with Blackberry. Swamp Gums showing dieback.
EVC 3	**Valley Heathy Forest**
Habitat Score	22 - 34
Status	Endangered
Conservation Significance	High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Sweet Vernal-grass and Panic Veldt-grass
Notes	Degraded due to weed invasion.

SITE 80 NAME Baxter-Tooradin Rd, Victoria Rd, Langwarrin

Site Significance	Medium
Area (Ha)	0.91
Tenure	Private
Biosites	None
Site notes	Much of this site supports scattered indigenous trees. Extant remnants are small, degraded and species-poor.
Access problems	yes - part of Victoria Rd

EVC 1	**Heathy Woodland 48**
Habitat Score	28 - 38
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Blackberry, Coast Wattle, Sweet Vernal-grass and Panic Veldt-grass
Notes	A small remnant located at the back of a block. Understorey very dominated by Bracken.
EVC 2	**Swampy Woodland 937**
Habitat Score	24 - 31
Status	Endangered
Conservation Significance	High
Invasive weed species	Blackberry, Red-ink Weed, Sweet Vernal-grass, Yorkshire Fog, Drain Flat-sedge, Spear Thistle and Fiddle Dock.
Notes	A very small disturbed patch located along a drainage line.

SITE 81 NAME Victoria Road - D -Hastings Rd, Langwarrin South

Site Significance	Medium
Area (Ha)	0.94
Tenure	Private
Biosites	None
Site notes	Most of the property supports scattered trees over an exotic understorey. The small remnant of Heathy Woodland requires weed control.
Access problems	Yes

EVC 1 **Heathy Woodland 48**

Habitat Score	39 - 50
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Wattle, Sweet Pittosporum, Blackberry, Sweet Vernal-grass, Brown-top Bent and Yorkshire Fog.
Notes	A small remnant that has been invaded by Coast Wattle, but still supports a good shrub layer.

SITE 82 NAME Olivers Hill, Frankston South

Site Significance	Low - Medium
Area (Ha)	3.39
Tenure	Public
Biosites	State (#4615) ?4651
Site notes	Generally very disturbed and weed invaded. Patches of reasonable quality. Elements of other coastal EVCs but geographically considered as Coastal Headland vegetation and treated as one unit. Management should include restriction of access by pedestrians.
Access problems	No

EVC 1 Coastal Headland Scrub 161

Habitat Score	18 - 41
Status	Vulnerable
Conservation Significance	Low - Medium
Invasive weed species	Boneseed, Myrtle-leaf Milkwort, Boxthorn, Gazania, many grassy and other herbaceous species
Notes	Merges into Coastal Dune Scrub and Coast Banksia Woodland.

SITE 83 NAME Bergman Rd road reserve, Langwarrin

Site Significance	Very High
Area (Ha)	1.33
Tenure	Public
Biosites	None
Site notes	Variable quality roadside remnant, but relatively high values in some areas.
Access problems	No

EVC 1 **Valley Heathy Forest 127**

Habitat Score	39 - 62
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Bluebell Creeper, Sweet Vernal-grass, Cocksfoot.
Notes	Patchy roadside vegetation, ranges from very good quality to scattered indigenous trees. Includes sections subject to slashing this promotes indigenous species.

EVC 2 **Swampy Woodland 937**

Habitat Score	48
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Sweet Pittosporum, Cocksfoot, and Spear Thistle.
Notes	A small degraded patch located on the east side of Bergman Road.

SITE 84 NAME Oliphant Way Wetland, Seaford

Site Significance	Very High
Area (Ha)	13.98
Tenure	Public
Biosites	None
Site notes	Site could not be assessed due to Freeway construction. Vegetation quality and mapping are based on Biosis 2003, however some of this vegetation may now be cleared.
Access problems	Yes

EVC 1	**Plains Grassy Wetland 125**
Habitat Score	14 - 63
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	
Notes	Vegetation condition scores and mapping are based on Net Gain assessment by Biosis 2003.
EVC 2	**Plains Grassland 132**
Habitat Score	24
Status	Endangered
Conservation Significance	High
Invasive weed species	
Notes	Based on Biosis 2003.
EVC 3	**Swamp Scrub 53**
Habitat Score	40 - 48
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	
Notes	Based on Biosis 2003.

SITE 85 NAME Casuarina Reserve, Frankston South

Site Significance	Very High
Area (Ha)	0.84
Tenure	Public
Biosites	None
Site notes	A well maintained remnant. Includes revegetation and weed control.
Access problems	No

EVC 1	**Grassy Woodland 175**
Habitat Score	41 - 57
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Coast Tea-tree, Berry-flower Heath, Sweet Vernal-grass, Couch and Three-corner Garlic
Notes	Has affinities with Heathy Woodland. A large proportion of the vegetation is in good condition and with some areas very species rich (especially in orchids and small herbs).

SITE 86 NAME 13 Gum Hill Drive, Langwarrin

Site Significance	Very High
Area (Ha)	1.67
Tenure	Private
Biosites	None
Site notes	Land for wildlife property. Landowners actively undertake weed control and revegetation. Tree clearing around the house with retention of native understorey. A species list (139 species including a number of orchids and seasonal herbs) is available from the landowner.
Access problems	No

EVC 1	**Valley Heathy Forest 127**
Habitat Score	54 - 65
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Pines, Coast Wattle
Notes	Small remnant of high quality, very weed free. Species diversity is very high.
EVC 2	**Swamp Scrub 53**
Habitat Score	50 - 59
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Blackberry
Notes	Relatively good patch of Swamp Scrub. Blackberry is invading in parts.

SITE 87 NAME Shepherds Hut Rd, Langwarrin South

Site Significance	Very High
Area (Ha)	1.17
Tenure	private
Biosites	None
Site notes	Small patches of remnant vegetation in moderate condition. Limited access.
Access problems	Yes

EVC 1	**Grassy Woodland 175**
Habitat Score	32 - 48
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Wandering Jew, Sweet Pittosporum, Sweet Vernal-grass, Panic Veldt-grass and Yorkshire Fog.
Notes	

SITE 88 NAME Frankston Pier to Somme Ave, Frankston

Site Significance	Very High
Area (Ha)	2.27
Tenure	Public
Biosites	Regional (#4653)
Site notes	Intensively managed; score somewhat artificial due to revegetation works. Weeds require on-going management.
Access problems	Yes

EVC 1	**Coastal Dune Scrub 160**
Habitat Score	52
Status	Vulnerable
Conservation Significance	Low
Invasive weed species	Gazania, Mirror-bush, Bridal Creeper, Clover
Notes	Merges into Coast Banksia Woodland. Management, including intensive revegetation.
EVC 2	**Coast Banksia Woodland 2**
Habitat Score	42
Status	Vulnerable
Conservation Significance	High
Invasive weed species	Boxthorn, Angled Onion, herbaceous weeds
Notes	Patchy condition

SITE 89 NAME Frankston Beach, Long Island; Wells St to Allawah Ave.

Site Significance	High – Very High
Area (Ha)	3.05
Tenure	Public
Biosites	Regional (#4653)
Site notes	Mostly relatively narrow, subject to user-pressure, erosion and weed invasion. No Condition Scores; indicatively low conservation significance but high values as part of continuum of coastal vegetation and contribution of vegetation to dune stability - user pressure needs to be controlled; weed control lower priority.
Access problems	No

EVC 1	**Coastal Dune Scrub / Coastal Dune Grassland Mosaic 1**
Habitat Score	< 50
Status	Endangered
Conservation Significance	High – Very High
Invasive weed species	Marram Grass, Hare's-tail Grass

SITE 90 NAME Navarre Reserve, Frankston

Site Significance	High
Area (Ha)	0.78
Tenure	Public
Biosites	None
Site notes	Most of reserve supports good patches of remnant adjacent to mown and cultivated areas for recreation. Some dieback. Continued management should ensure maintenance of values; weed control required.
Access problems	No

EVC 1 **Damp Heathy Woodland 793**

Habitat Score	35 - 45
Status	Vulnerable
Conservation Significance	High
Invasive weed species	Coast Wattle, Coast Tea-tree, Ivy, Bluebell Creeper, Angled Onion
Notes	Patchy but remnants in good condition

SITE 91 NAME Gumnut Bushland Reserve, Frankston

Site Significance	Medium - High
Area (Ha)	2.20
Tenure	Public
Biosites	None
Site notes	Some revegetation work has been undertaken (planting and fauna habitat augmentation) and some weed control.
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	54 - 60
Status	Depleted
Conservation Significance	Medium - High
Invasive weed species	Coast Wattle, Boneseed, Sweet Pittosporum, White Shallow-wattle, Prairie Grass, Toowoomba Canary-grass, Black Nightshade, Common Sow-thistle
Notes	Variation within Heathy Woodland EVC. South-east corner dominated by graminoids (e.g. Thatch Saw-sedge, Coast Flax-lily, Slender Sword-sedge), North end Bracken dominated. Good fauna habitat (some large hollows, logs and stags), high diversity of species. Generally good quality.

SITE 92 NAME Illawong Reserve, Langwarrin

Site Significance	Medium
Area (Ha)	0.57
Tenure	Public
Biosites	None
Site notes	Small patch, north-east end is a playground, patch becoming invaded by grassy weeds
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	31 - 42
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Wattle, Prairie Grass, Toowoomba Canary-grass, Sheep Sorrel, Cape Weed, Panic Veldt-grass, Narrow-leaf Clover
Notes	Understorey Bracken dominated with a scattering of shrubs and graminoids, few large trees

SITE 93 NAME Kooluna Reserve, Frankston

Site Significance	Medium
Area (Ha)	0.30
Tenure	Public
Biosites	None
Site notes	Small, disturbed remnant with severe infestation of Berry-flower Heath. Otherwise reasonably high values with large old trees and patches with species-rich ground stratum.
Access problems	No

EVC 1 Heathy Woodland 48

Habitat Score	31 - 35
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Berry-flower Heath, grassy weeds
Notes	Patchy remnant

SITE 94 NAME Clifton Reserve, Carrum Downs

Site Significance	Medium
Area (Ha)	0.20
Tenure	Public
Biosites	None
Site notes	Small patches of good quality Heathy Woodland surrounding a playground.
Access problems	No

EVC 1 Heathy Woodland

Habitat Score	46
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Panic Veldt-grass, Annual Veldt-grass and Sheep Sorrel
Notes	Small remnant patches in very good condition. Some of these areas may have been planted due to the high density of small shrubs.

SITE 95 NAME Perkins Reserve, Carrum Downs

Site Significance	Medium
Area (Ha)	0.32
Tenure	Public
Biosites	None
Site notes	A small allotment supporting regenerating Heathy Woodland.
Access problems	No

EVC 1	**Heathy Woodland 48**
Habitat Score	51
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Tea-tree, Capeweed, Annual Veldt-grass, Petty Spurge.
Notes	A regenerating patch of Heathy Woodland. Some areas have lots of bare ground and trees are all on the edges.

SITE 96 NAME Lloyd Park, Cranbourne - Frankston Rd,

Site Significance	Very High
Area (Ha)	5.70
Tenure	Public
Biosites	None
Site notes	High user pressures and extensive, often dense weed invasions. Small patches of reasonable quality remnants. Some areas with indigenous scattered trees over an exotic understorey.
Access problems	No

EVC 1	**Riparian Scrub 191**
Habitat Score	45 - 56
Status	Vulnerable
Conservation Significance	High - Very High
Invasive weed species	Sweet Pittosporum, Boneseed, Tree Lucerne, Blackberry, Coast Wattle, Gorse, Holly, Pines, Pampas Grass, Coast Tea-tree, Ivy, Cootamundra Wattle, Angle Onion
Notes	Very disturbed but retains some values with large old trees and species-rich patches
EVC 2	**Heathy Woodland 48**
Habitat Score	34 - 50
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Wattle, Sweet Pittosporum, Blackberry, Annual Veldt-grass, Panic Veldt-grass, Sweet Vernal-grass and Quaking Grass.
Notes	Located in the north-east of Lloyd Park, the quality of this EVC varies considerably. Parts of this patch are species rich.

SITE 97 NAME Oakwood Reserve, Carrum Downs

Site Significance	Medium
Area (Ha)	0.36
Tenure	Public
Biosites	None
Site notes	Consists of a patch within a small council reserve that is contiguous with the adjacent property. This neighbouring property has similar species present, but a much high cover of Coast Tea-tree.
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	37
Status	Depleted
Conservation Significance	Medium
Invasive weed species	Coast Tea-tree, Coast Wattle, Capeweed, Annual Veldt-grass and Panic Veldt-grass
Notes	This small remnant is very patchy, with lots of bare ground in some areas.

SITE 98 NAME Council Reserve, North & Centre Roads

Site Significance	Very High
Area (Ha)	13.84
Tenure	Public
Biosites	None
Site notes	Relatively small area of intact native vegetation; larger area is modified due to past quarry activities and other vegetation clearance, as well as weed invasion.
Access problems	yes – cyclone fence around old quarry area

EVC 1	**Valley Heathy Forest 127**
Habitat Score	37 - 57
Status	Vulnerable
Conservation Significance	High - Very High
Invasive weed species	Coast Wattle, Coast Tea-tree, Montpellier Broom, Pines, Sweet Pittosporum, Cotoneaster, Blackberry, Boneseed, Sweet Vernal-grass and Bluebell Creeper
Notes	Restricted to the gully, this vegetation is a woodland to open forest of Messmate Stringybark and Narrow-leaf Peppermint (has affinities with Herb-rich Foothill Forest). The best quality vegetation is within the Centre Road road reserve.
EVC 2	**Swamp Scrub 53**
Habitat Score	48
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Sweet Pittosporum, Pines
Notes	Restricted to drainage line in northern section of site.
EVC 3	**Heathy Woodland 48**
Habitat Score	29 - 36
Status	Depleted
Conservation Significance	Low - Moderate
Invasive weed species	Sweet Pittosporum, Coast Wattle, Coast Tea-tree, Pine, Flax-leaf Broom, Sweet Vernal-grass, Panic Veldt-grass and Brown-top Bent
Notes	Degraded due to mining. High cover of woody weeds.

SITE 99 NAME Outlook Reserve, Frankston

Site Significance	Medium
Area (Ha)	0.33
Tenure	Public
Biosites	None
Site notes	The Heathy Woodland remnant is very small, but well maintained. It is threatened by weed invasion and garden rubbish dumping. The area in the north (other side of cyclone fence) is a forest of Coast Tea-tree.
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	24 - 56
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Tea-tree, Coast Wattle Sweet Vernal-grass, Panic Veldt-grass, Soursob.
Notes	Located in the southern section, the majority of this small remnant is very species rich and well looked after.

SITE 100 NAME Banjo Rise, Carrum Downs

Site Significance	Medium
Area (Ha)	0.54
Tenure	Public
Biosites	None
Site notes	A small remnant with some supplementary plantings.
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	29 - 41
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Coast Tea-tree, Pines, Yorkshire Fog, Panic Veldt-grass, Mouse-ear Chickweed and White Arum-lily.
Notes	This remnant has a high cover of exotic grass. Some plantings have been undertaken on one edge and some species used are probably not indigenous to the EVC within this area. Vegetation condition assessment was for the non-planted part of the reserve.

SITE 101 NAME Frankston Foreshore - Davey's Bay

Site Significance	Medium
Area (Ha)	0.89
Tenure	Public
Biosites	None
Site notes	Steep cliff/dunes leading onto beach, small linear remnant, high cover of weeds, some dune/cliff instability
Access problems	No

EVC 1 **Coastal Headland Scrub 161**

Habitat Score	23 - 30
Status	Vulnerable
Conservation Significance	Medium
Invasive weed species	English Ivy, African Boxthorn, Prairie Grass, Kikuyu, Boneseed, Toowoomba Canary-grass, Pines, Mirror Bush, Common Sow-thistle, Couch, Hare's-tail Grass, Gazania, Myrtle-leaf Milkwort
Notes	Very weed-infested. Southern end of better quality, some dune/cliff instability, ground layer dominated by Kikuyu but generally a good cover of shrubs. Biocontrol of Boneseed (extant cover is relatively low).

SITE 102 NAME Rinella Reserve, Frankston South

Site Significance	High - Very High
Area (Ha)	1.68
Tenure	Public
Biosites	None
Site notes	Very small remnant in gully adjoining Frankston Reservoir, mostly park with mown grass. Includes large trees with patchy native understorey, some planting and faunal habitat augmentation.
Access problems	No

EVC 1 Grassy Woodland 175

Habitat Score	26 - 40
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Yorkshire Fog, Prairie Grass, Wood Sorrel, Panic Veldt-grass, Coast Wattle, Blue Psoralea
Notes	

SITE 103 NAME Overport Park, Frankston South

Site Significance	High - Very High
Area (Ha)	9.74
Tenure	Public
Biosites	None
Site notes	Steep gully with small creek, joins the Frankston Reservoir to the north. North end of good quality – remnants of both slope and instream vegetation.
Access problems	No

EVC 1	**Gully Woodland 902**
Habitat Score	23 - 43
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Sweet Pittosporum, Coast Wattle, Boneseed, Panic Veldt-grass, Bridal Creeper, Pines, Blackberry, Arum lily, Prunus, Desert Ash, Sweet Briar, Agapanthus, Montpellier Broom, Watsonia, Banana Passion-fruit, English Ivy, English Holly
Notes	Quality varies greatly along creek, quality to south-west end of creek is very poor, improves greatly towards the Frankston Reservoir, weed invasion high

SITE 104 NAME Macrosty Crt, Frankston

Site Significance	Low - Medium
Area (Ha)	0.49
Tenure	Public
Biosites	None
Site notes	This small remnant in a public reserve is degraded around edges but otherwise is fairly intact.
Access problems	No

EVC 1 **Heathy Woodland 48**

Habitat Score	18 - 38
Status	Depleted
Conservation Significance	Low - Medium
Invasive weed species	Bluebell Creeper, Coast Wattle, Coast Tea-tree, Sweet Pittosporum, Blackberry, Wandering Jew
Notes	Grades to Swampy Woodland downslope but remnant too small to be delineated.

SITE 105 NAME Derinya Reserve, Frankston South

Site Significance	Very High
Area (Ha)	1.29
Tenure	public
Biosites	None
Site notes	Patchy with mown areas but species-rich remnants (incl. orchids and lilies)
Access problems	No

EVC 1	**Grassy Woodland 175**
Habitat Score	55
Status	Endangered
Conservation Significance	Very High
Invasive weed species	Coast Wattle, Ivy, Montpellier Broom, Bluebell Creeper

SITE 106 NAME Esplanade Reserve, Frankston

Site Significance	'Medium'
Area (Ha)	0.83
Tenure	Public
Biosites	None
Site notes	Steep site on two geologies (Baxter Sandstone and Devonian Granodiorite), with a history of disturbance makes determination of EVC(s) difficult. Possibly a coastal variant of Heathy Woodland.
Access problems	No

EVC 1 Heathy Woodland variant

Habitat Score	33 - 42
Status	D'
Conservation Significance	'Medium'
Invasive weed species	Myrtle-leaf Milkwort, Boneseed, Bridal Creeper, Mirror-bush, numerous other species including vines, grasses and lilies.
Notes	Difficult to determine EVC

SITE 107 NAME Brahma Kumaris Retreat Centre, Frankston

Site Significance	High - Very High
Area (Ha)	8.04
Tenure	Private
Biosites	None
Site notes	North-east portion of site is scattered trees over a cleared understorey. Most of the Swampy Woodland EVC is fairly degraded.
Access problems	No

EVC 1	**Grassy Woodland 175**
Habitat Score	33 - 51
Status	Endangered
Conservation Significance	High - Very High
Invasive weed species	Sweet Pittosporum, Pines, Blackberry, Coast Wattle
Notes	Remnant of patchy quality, very weed invaded in parts.
EVC 2	**Swampy Woodland 937**
Habitat Score	30 - 35
Status	Endangered
Conservation Significance	High
Invasive weed species	Blackberry, Jew, Pampas-grass, Pines, English Ivy, Holly
Notes	Small, degraded remnant associated with a drainage-line and fringing a wetland. Weed invasion is moderate to severe.

SITE 108 NAME Kackeraboite Creek, Frankston South

Site Significance	High
Area (Ha)	0.74
Tenure	Public?
Biosites	None
Site notes	Narrow, steep, degraded Coastal Dune Scrub remnant at the mouth of Kackeraboite Creek. Banks are steep, high and there is some erosion. Water at the western end is estuarine and tidal. Eastern end is almost entirely exotic, invaded by Willows, Desert Ash, Oak and Blackberry. Requires on-going weed management. Lots of garden escapees from surrounding properties. Instream vegetation and fauna (small schools of fish), notable rock formations in-stream.
Access problems	No

EVC 1 Coastal Headland Scrub 161

Habitat Score	37 - 41
Status	Vulnerable
Conservation Significance	High
Invasive weed species	Gazania, Mirror-bush, Boneseed, Blackberry, African Box-thorn, Buffalo Grass, Cape Ivy, Myrtle-leaf Milkwort
Notes	Very weed invaded, particularly upslope by garden escapees. EVC only applies to western end near creek mouth.