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FINAL REPORT

Native Vegetation Precinct Plan Background Report for the Toolern Precinct, Melton South - Rockbank, Victoria

ON BEHALF OF:

Macroplan Australia Pty Ltd

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Ecology Partners Pty Ltd

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Cover Photo: River Red-gum remnants of Plains Grassy Woodland within study area (Ecology Partners Pty. Ltd.)

Ecology Partners Pty. Ltd. personnel who conducted the site assessments and who prepared the report are Aaron Organ, Ian Wheatland, Andrew Hill, Anna Foley and Zed Senbergs.

1 OBJECTIVES OF THE PLAN

This Native Vegetation Precinct plan (NVPP) background report applies to the Toolern Precinct site (Figure 1 and 2).

The purpose of the NVPP background report is to:

- Provide thorough ecological assessment and Net Gain analyses for input into the overall NVPP incorporated document.
- Specify flora and fauna values, habitat hectare calculation and Net Gain offset requirements in respect to the precinct.
- Provide guidance for the implementation offsets, to achieve Net Gain.

The purpose of the NVPP incorporated document is to:

- Contribute to the implementation of a landscape approach to vegetation management;
- Clearly specify, prior to the precinct being rezoned for residential and employment purposes, or before the development of land for other uses permissible within the residential and employment zone, and prior to the commencement of large scale development in the precinct, which vegetation may be removed and which vegetation must be retained within the precinct, and
- Allocate rights and responsibilities between landowners in terms of offset requirements where vegetation may be removed; and,
- Specify procedure for providing offsets, to achieve Net Gain.

2 AREA COVERED BY THE PLAN

The Toolern Precinct is approximately 2,373 hectares in area and encompasses the townships of Melton South and Rockbank. It is located approximately 35 kilometres west of the Melbourne CBD and lies to the south and east of Melton township (Figure 1). It is bordered by the Western Freeway to the north and Paynes Road to the east. The western boundary partially follows Toolern Creek and the Melton Reservoir whilst the southern boundary follows existing land parcel boundaries along the Urban Growth Boundary.

The Toolern Precinct encompasses three smaller precincts which include:

- Precinct 1- Bordered by the Western Highway to the west, Melton Reservoir to the south-west, Toolern Creek to the east and the Melton South residential area to the north (Figure 1);
- Precinct 2 – Bordered by Toolern Creek to the west, the Melton Rail Corridor to the south, Paynes Road to the east and Western Highway to the north (Figure 1); and,
- Precinct 3 – Bordered by Toolern Creek to the west, the Urban Growth Boundary to the south, Paynes Road to the east and the Melton Rail Corridor to the north (Figure 1).

The majority of the Toolern Precinct is currently privately owned and used for farming, grazing or industrial purposes. However, the area within the vicinity of Toolern Creek, including a portion of land to the west of the creek and a large area to the east of the creek are currently owned by the Shire of Melton (Figure 3). A portion of this area is currently used for grazing purposes. It is proposed that part of the Council owned land will be used as a Regional Park and be managed for conservation and recreational purposes.

Major roads running north-south within the precinct include Exford Road, Ferris Road, Mount Cottrell Road and Paynes Road. Major roads to run east-west include Bridge Road, Alfred Road and Iramoo Circuit. A regional railway line runs east-west across the precinct and is flanked by a railway reserve approximately 10-15 metres wide to the north and south of the railway line.

According to DSE's Biodiversity Interactive Map (www.dse.vic.gov.au) the study area occurs within the Victorian Volcanic Plains bioregion. This bioregion extends from Portland in the west to Craigieburn in the east and from Clunes in the north to Colac in the south. The precinct is within the municipality of the Shire of Melton and within the jurisdiction of the Port Phillip and Westernport Catchment Management Authority.

3 NATIVE VEGETATION WITHIN THE PRECINCT

3.1 Previous Ecological Investigations of Toolern Precinct

The following flora and fauna assessments, 'habitat hectare' analyses, environmental values assessments, and arborist report were used as part of the development of the NVPP Background Report:

- Ecology Partners Pty. Ltd. 2008. Toolern Precinct Structure Plan: Flora and Fauna Assessment and Habitat Hectare Analysis, Melton South, Victoria;
- Brett Lane and Associates Pty. Ltd. 2007. Exford Road, Melton South, Flora and Fauna Assessment;
- Galbraith and Associates Pty. Ltd. 2007. Exford Road, Melton South Tree Assessment;
- Centre for Environmental Management 2006. Toolern Creek Regional Park Environmental Values Assessment;
- Centre for Environmental Management 2006. Toolern Creek Regional Park Environmental Values Assessment of Shire of Melton land adjacent to the Park Investigation Area; and
- Brett Lane and Associates Pty. Ltd. 2004. Flora and Fauna Assessment, Proposed Melton Harness Track.

3.2 Ecological Vegetation Classes

The site assessments indicate that there are remnants of six Ecological Vegetation Classes (EVCs) within the study area:

Creekline Grassy Woodland

Remnants of Creekline Grassy Woodland (EVC 68), which is generally in poor condition, occur along a majority of Toolern Creek within the western portion of the study area (Figure 2). Creekline Grassy Woodland is typically dominated by a River Red-gum *Eucalyptus camaldulensis* overstorey with an occasional shrub layer component, as well as a grassy/sedgy and herbaceous ground layer (DSE EVC Benchmark). Within the study area, an indigenous shrub and ground layer component is largely absent. However, overstorey River Red-gum and several aquatic flora species persist along the creek. Creekline Grassy Woodland is currently classified as an endangered EVC within the bioregion.

Plains Woodland

Remnants of Plains Woodland (EVC 803), ranging from poor to relatively good quality vegetation, exist within the study area. Plains Woodland generally occurs as small patches within the western portion of the study area, to the east of Toolern Creek and along the railway reserve to the north.

There are also smaller patches along Bridge Road and Mount Cottrell Road. Three larger patches of Plains Woodland also occur along the southern boundary of the study area (Figure 2).

Plains Woodland is typically characterised by an overstorey of several different eucalypt species such as Grey Box *Eucalyptus microcarpa*, Yellow Box *Eucalyptus melliodora*, Yellow Gum *Eucalyptus leucoxylon* as well as Buloke *Allocasuarina leuhmannii* (DSE EVC Benchmark). Shrub species are generally sparse in cover, although it is thought that prior to European settlement there may have been a more dominant shrub component (Oates and Taranto 2001). The ground layer typically consists of grasses or sedges and herbs adapted to low summer rainfall (EVC Benchmark). Plains Woodland is currently restricted to the driest areas of the plains to the west of Melbourne (Oates and Taranto 2001).

Within the study area, Plains Woodland is dominated by an overstorey of Grey Box and Yellow Box as well as the occasional Buloke. While shrub species are generally absent, some areas contain a good cover of indigenous grasses and scattered herbs, including chenopods. Chenopods are a family of flowering plants of arid or salt-affected areas (Burgman and Lindenmayer 1998). The majority of the scattered trees within the study area are remnants from Plains Woodland EVC. Plains Woodland is currently classified as an endangered EVC within the bioregion

Plains Grassy Woodland

Remnants of Plains Grassy Woodland (EVC 55), ranging from relatively poor to moderate quality vegetation, generally occur as small patches within the eastern portion of the study area with scattered remnants also within the north-western portion (Figure 2). This EVC typically occurs on poorly drained soils at low elevations and is dominated by an overstorey of River Red-gum with an understorey of sparse shrubs and species-rich grasses and herbs (DSE EVC Benchmark). Within the study area the River Red-gum are present, although the understorey is typically dominated by either introduced pasture grasses or indigenous grasses with little species diversity. Shrub species are generally absent. Plains Grassy Woodland is currently classified as endangered within the bioregion.

Plains Grassland

Low-rainfall Plains Grassland (EVC 132_63), which is generally of a good quality, occurs along the existing railway reserve in the north of the study area (Figure 2). *Low-rainfall* Plains Grassland (EVC 132_63) is characterised by treeless vegetation less than one metre tall dominated by a diversity of grasses and herbs. It generally occurs on cracking basalt soils in areas receiving less than 500 millimetres annual rainfall (DSE EVC Benchmark). Within the railway reserve there is a relatively good cover of species-rich indigenous grasses and herbs interspersed with areas supporting small shrubs (i.e. *Acacia* spp.) as well as patches of other ecological vegetation classes.

Within the eastern portion of the study area (Figure 2) there are large areas containing a monoculture of indigenous grasses (i.e. wallaby and spear grasses) with little other indigenous species present. Due to past and current land management practices (i.e. grazing and cropping) and the area's highly modified nature, these areas of Plains Grassland may be regarded as 'degraded treeless vegetation'. Nevertheless, they cover a wide area and contain a high density of indigenous grass species which should be seen as significant for the region. Plains Grassland is currently classified as endangered within the bioregion.

Lignum Swamp

Remnants of Lignum Swamp (EVC 104), ranging from poor to good quality vegetation, persist within four separate parts of the study area. One of these sites occurs along Paynes Road to the east whilst a smaller patch exists in the west within the railway reserve (Figure 2). Lignum Swamp also persists north of the railway Lignum Swamp patch, and a patch of good quality Lignum Swamp exists at the intersection of the Western Highway and Ferris Road (Figure 2). Lignum Swamp is typically characterised as a shrubland dominated by Lignum *Muehlenbeckia florulenta* or an open woodland containing River Red-gum (DSE EVC Benchmark). It occurs on seasonally inundated soils in depressions and floodways within low rainfall areas.

Although Lignum Swamp within the study area is devoid of a sparse cover of River Red-gum, a more intact example of what may have once existed is present adjacent to the Paynes Road Lignum Swamp site. While this area is outside the current study area confines it contains good quality Lignum Swamp on the periphery with a combined Plains Swampy Woodland / Lignum Swamp complex further east.

However, at present three of the four Lignum Swamp patches within the study area support only Lignum with a highly weedy understorey. Lignum Swamp abutting the Western Highway contains overstorey vegetation and a higher diversity of understorey species. Lignum Swamp is currently classified as endangered within the bioregion.

Plains Swampy Woodland / Lignum Swamp Complex

Remnants of Plains Swampy Woodland / Lignum Swamp Complex (EVC 784), ranging from poor to moderate quality vegetation, occurs within four separate areas in the eastern portion of the study area (Figure 2). There are two areas along the southern boundary to the east and west of Mount Cottrell Road, one area along Alfred Road and one area along Mount Cottrell Road. This EVC is typically considered a wetland consisting of a mixture of the structural components of Plains Swampy Woodland (River Red-gum or Swamp Gum *Eucalyptus ovata* as overstorey) and Lignum Swamp (with a typically Lignum dominated understorey). The density and cover of overstorey species is typically greater within this EVC than within a Lignum Swamp EVC where the woodland is more open (Doug Frood pers. comm.).

Within the study area the overstorey remnants (River Red-gum) and Lignum understorey are generally present. However, in some instances past and current land management practices have modified the understorey component. In addition, these areas are currently dry and may only be inundated on an occasional basis. The best example of this EVC can be observed within the Mount Cottrell Road site where there is a high density of River Red-gum and Lignum, as well as other understorey species.

This EVC is considered extremely rare and occurs within the rain shadow area to the west of Melbourne (DSE EVC Benchmark). It is currently classified as endangered within the bioregion.

3.3 Vegetation Condition

Far western portion of study area – west of Rees Road (Parcel no. 9841) and west of Exford Road (Parcel no. 11597)

This area is dominated by introduced pasture species and is largely modified with little ecological value. However, there are remnant patches of Plains Woodland within the eastern portion of this area (Figure 2). Grey Box is the dominant overstorey species within these patches (Plate 1) with the understorey containing mostly weedy introduced pasture species. However, parts of this area also contain several chenopod species such as Nodding Saltbush *Einadia nutans*, Berry Saltbush *Atriplex semibaccata*, Ruby Saltbush *Enchylaena tomentosa* and the state significant rare Fragrant Saltbush *Rhagodia parabolica* (Plate 2). Scattered indigenous trees are also present. Areas surrounding a now demolished residence on site contain planted vegetation.

Plate 1. Grey Box within far western portion of study area

Plate 2. Fragrant Saltbush Rhagodia parabolica (rare-DSE)

The area west of Exford Road (Parcel no. 11597) is relatively devoid of native vegetation and has previously been cropped and modified for farming and/or grazing purposes. However, there are isolated occurrences of the indigenous Tree Violet *Melicytus dentatus*. Two remnant Grey Box and several Lightwood *Acacia implexa* occur within the Exford Road reserve.

Between Werribee River and Toolern Creek – Stockland land

The land within this area has been extensively cleared and currently cultivated for oats and introduced pasture grasses. A large patch (approximately 7.62 hectares) of Plains Woodland (also known as *Riverina* Plains Grassy Woodland) exists west of the Exford Homestead and a patch (3.62 hectares) of Creekline Grassy Woodland occurs within the Toolern Creek Valley (Figure 2).

A total of 123 scattered trees have been recorded within this portion of the study area (Figure 2). Species include River Red-gum, Grey Box, Yellow Box, Buloke and Blue Box *Eucalyptus baueriana*.

The Melton Reservoir has been extensively modified with a small number of River Red-gum and Blackwood occurring on the embankment. The banks of the reservoir contain little aquatic vegetation, and the adjacent bank contains predominantly exotic species with scattered Kangaroo Grass *Themeda triandra* and spear grasses *Austrostipa* spp.

The west side of the Toolern Valley escarpment contains mostly introduced vegetation with the northern section dominated by the exotic species Sharp Rush *Juncus acutus* subsp. *acutus*. The noxious weed Salvinia *Salvinia molesta* (listed as a Weed of National Significance) was also recorded within the northern portion of the creek escarpment.

The middle section of the Toolern Valley escarpment contains Creekline Grassy Woodland supporting River Red-gum, Yellow Box, Tree Violet and Blackwood with an indigenous understorey of grasses. The creek contains indigenous sedges, bulrushes and reeds. The steepest section of the Toolern Creek Valley contains introduced species such as Gorse *Ulex europaeus*, Soursob *Oxalis pes-caprae* and Toowoomba Canary-grass *Phalaris aquatica*.

Toolern Creek

The majority of Toolern Creek is dominated by large old River Red-gums and regenerating saplings (Plate 3). However, the understorey is largely dominated by introduced species, in particular woody species, such as African Boxthorn *Lycium ferocissimum*, Pepper Tree *Schinus molle*, Gorse *Ulex europaeus* and Willow *Salix* spp. Other weeds that line the creek banks include Drooping Prickly-pear *Opuntia monacantha*, Sharp Rush *Juncus acutus* subsp. *acutus*, Fennel *Foeniculum vulgare* and Ox-tongue *Helminthotheca echioides*, as well as introduced pasture species such as Soft Brome *Bromus hordeaceus* subsp. *hordeaceus*, Yorkshire Fog *Holcus lanatus*, Oat *Avena* spp. and Annual Veldt-grass *Ehrharta longiflora*. The state significant rare Austral Tobacco *Nicotiana suaveolens* was observed in the south on the opposite side of the creek.

Parts of the upper banks contain indigenous species such as spear grass *Austrostipa* spp., wallaby grass *Austrodanthonia* spp., Berry Saltbush and Wattle Mat-rush *Lomandra filiformis*. There are also scattered indigenous trees such as Lightwood *Acacia implexa* and Black Wattle *Acacia mearnsii* on parts of the upper creek banks.

Plate 3. River Red-gum along Toolern Creek

Indigenous aquatic and semi-aquatic vegetation observed within and abutting the creek include Common Reed *Phragmites australis*, Bulrush *Typha* spp., Pondweed *Potamogeton* spp., Water Ribbons *Triglochin procera* and Water Plantain *Alisma plantago-aquatica*. Parts of the creek are also heavily infested with the noxious weed Sharp Rush *Juncus acutus* subsp. *acutus* (Plate 4).

Plate 4. Sharp rush infestation in Toolern Creek

Areas west of Toolern Creek within land currently owned by Melton Shire Council (Figure 3) supports a combination of Plains Woodland patches and scattered trees with an understorey dominated by indigenous grasses such as spear grasses and wallaby grasses *Austrodanthonia* spp.

Railway reserve (between Toolern Creek and Paynes Road) (Ecology Partners Pty. Ltd.)

The railway reserve is dominated by indigenous flora species and several EVCs are represented within this portion of the study area. Areas of Plains Woodland in the west are dominated by mature and regenerating Grey Box whilst further east patches are consist of immature Grey Box and acacia species. One area between Ferris and Mount Cottrell Roads is dominated by many large old and regenerating Buloke (Figure 2).

Patches of good quality Plains Grassland occur throughout the railway reserve and these species continue to occupy parts of the understorey within patches of Plains Woodland. Dominant species include Kangaroo Grass *Themeda triandra*, spear grasses and wallaby grasses, as well as herbs such as Smooth Rice-flower *Pimelea glauca*, Magenta Stork's-bill *Pelargonium rodneyanum*, Bronze Bluebell *Wahlenbergia luteola*, Blue Devil *Eryngium ovinum*, Lobe-seed Daisy *Brachyscome dentata* and Creamy Stackhousia *Stackhousia monogyna*. A majority of these areas contain minimal weed cover with a high cover of indigenous grasses. One area along the railway reserve is a part of a River Red-gum dominated Plains Grassy Woodland with a depleted indigenous understorey.

Wetlands within Railway Reserve

One small area of Lignum Swamp persists within the western portion of the railway reserve (Figure 2). It contains a relatively sparse cover of Tangled Lignum with a weedy understorey and/or bare patches of earth. The swamp was dry at the time of the present assessment.

Railway Reserve (west of Ferris Road)

A small area (0.49 hectares) of High conservation significance Plains Grassland. Dominant indigenous species include Kangaroo Grass, spear grasses and wallaby grasses. Also present are several individuals of Arching Flax-lily *Dianella* sp. aff. *longifolia* (Benambra), which is listed as vulnerable within Victoria. Other indigenous species present include Wattle Mat-rush *Lomandra longifolia* subsp. *longifolia*, Yellow Rush-lily *Tricoryne elatior*, and Sprawling Bluebell *Wahlenbergia gracilis*. Dominant exotic species include Perennial Rye-grass *Lolium perenne*, Wild Oat *Avena* spp., and Onion Grass *Romulea rosea*. Additionally, a low cover of Patterson's Curse *Echium plantagineum*, Serrated Tussock *Nassella trichotoma*, and Toowoomba Canary-grass *Phalaris aquatica* is present.

Toolern Creek to Ferris Road

A majority of this portion of the study area is dominated by introduced pasture species and is of negligible ecological value. However, several patches of Plains Woodland persist with one larger patch occurring near the southern boundary of the study area (Figure 2).

This patch of Plains Woodland is dominated by Grey Box and Yellow Box with a relatively intact understorey consisting of spear grasses and a small amount of herbs such as Berry Saltbush, Kidney Weed *Dichondra repens* and Variable Glycine *Glycine tabacina*. There is also one Buloke (listed on FFG Act) within this patch. Other Plains Woodland patches alongside the creek and Bridge Road are relatively devoid of indigenous understorey vegetation.

A large amount of scattered trees, mostly remnants of Plains Woodland EVC, occur within this portion of the study area. These scattered trees include River Red-gum, Grey Box, Yellow Box and Buloke (Plate 5). The majority of these scattered trees have a highly weedy understorey, although some areas are dominated by indigenous grasses which may be considered 'degraded treeless vegetation' due to the monoculture of grass species present, and past and current land management practices (i.e. cropping and grazing). These areas exist within the south-west and north-west sections of this area, as well as adjacent to the railway line (Figure 2).

Plate 5. Buloke (listed on FFG Act) directly north of Bridge Road

Wetlands between Toolern Creek and Ferris Road

The northern portion of this area contains degraded linear areas of Lignum Swamp (Figure 2) abutting large dirt mounds. The understorey within these areas contains a sparse cover of indigenous vegetation together with introduced flora species and/or bare patches of earth. This swamp may be a remnant of a much larger wetland that once existed directly north of this area, but which is now a disused land fill site. This wetland was dry at the time of the present assessment.

A relatively good quality Lignum Swamp patch occurs at the intersection of the Western Highway and Ferris Road (Figure 2). This area is dominated by indigenous trees, shrubs, grasses and herbs, with a moderate degree of invasion by environmental weeds. This low lying area is probably subject to inundation in very wet periods. The area is dominated by the canopy tree Grey Box. There are 13 mature trees of Grey Box in the area, eight of which are larger than 70cm dbh, and therefore meet the definition of 'large old trees' for this EVC. There is extensive regeneration of Grey Box trees throughout the site, and a healthy cover of the medium shrub Tangled Lignum. The understorey includes a good cover of native grasses including Swamp Wallaby Grass (*Amphibromus* spp.), Wallaby Grass and Spear Grass. A number of native herbs are also present including a single specimen of the Arching Flax-lily, a state significant species, and many specimens of Raspwort *Haloragis* spp., Berry Saltbush *Atriplex semibaccata*, Ruby Saltbush *Enchylaena tomentosa*, Saloop *Einadia hastata*, Kidney Weed *Dichondra repens*, Crassula *Crassula* spp. and Common Woodruff *Asperula conferta*.

The introduced species Wild Oat, Blanket Weed *Galenia* spp., Horehound *Marrubium vulgare*, African Boxthorn *Lycium ferocissimum*, Toowoomba Canary-grass *Phalaris aquatica*, Serrated Tussock *Nassella trichotoma*, Onion Grass *Romulea rosea* and *Romulea minutiflora*, Dock *Rumex* spp. and Pepper-cress *Lepidium africanum* are also present with a total cover of approximately 40%.

Ferris Road to Mount Cottrell Road

This portion of the study area contains isolated patches of three different EVCs. The largest patch of vegetation occurs in the far south along the study area boundary (Figure 2). This patch contains remnants of Plains Woodland, Plains Grassy Woodland and Plains Swampy Woodland / Lignum Swamp Complex. A high proportion of the patch is dominated by Grey Box which had recently died off due to an unidentified disturbance or event (possibly the prolonged drought). However, the majority of these are now coppicing (re-shooting) from the base of the tree. The understorey within this Plains Woodland patch is of good quality with a majority dominated by indigenous grasses together with herbs such as Common Everlasting *Chrysocephalum apiculatum* and Yellow Rush-lily.

Immediately north of the Plains Woodland patch is an area of Plains Grassy Woodland which is dominated by River Red-gums with a mixt of indigenous and introduced understorey species. This area appears to be within an eco-tonal environment where the Grey Box-dominated Plains Woodland environment predominant in the west intersects with the River Red-gum-dominated Plains Grassy Woodland environment predominant in the east.

Many of the properties in the east of this part of the precinct are dominated by a monoculture of indigenous grasses (Figure 2). These areas may be regarded as 'degraded treeless vegetation'.

There are also several scattered indigenous trees, including Buloke, that occur within this portion of the study area.

Wetlands between Ferris Road and Mount Cottrell Road

Amongst the large patch of Grey Box near the southern study area boundary is a small patch of River Red-gum (many of which are large and old) and Lignum which may have once formed part of a Plains Swampy Woodland / Lignum Swamp Complex. This area covers a relatively small area and was dry at the time of the present assessment.

Further north there are also patches of Plains Swampy Woodland / Lignum Swamp Complex along Albert Road. These areas are currently being grazed hence the understorey is highly modified with little indigenous vegetation (Plate 6). However, Lignum and several indigenous herbs are still evident on site. Plains Grassy Woodland patches also occur north of the rail line. Generally these patches contain large old River Red-gum with a weedy understorey, although there are small areas of natural regeneration and Lignum present.

Plate 6. *Highly degraded Plains Swampy Woodland along Albert Road*

Mount Cottrell Road to Paynes Road

Several EVCs occur within this far eastern portion of the study area. Along the southern portion of Mount Cottrell Road within the roadside reserve are many, mostly regenerating, River Red-gums along with Hedge Wattle *Acacia paradoxa* and scattered indigenous grasses. A majority of these trees have been lopped due to the presence of overhead power lines and are subsequently stunted in growth. Several Buloke also occur within this area.

Several Plains Grassy Woodland patches dominated by large old River Red-gums occur east of Mount Cottrell Road (Figure 2). The understorey within these areas is dominated by a monoculture of indigenous grasses which may be regarded as 'degraded treeless vegetation' as well as introduced species (Plate 8). These indigenous grasses extend further east to the study area boundary and north towards the railway line (Figure 2).

Wetlands between Mount Cottrell Road and Paynes Road

Good quality patches of Plains Swampy Woodland / Lignum Swamp Complex occur along Mount Cottrell Road north of the railway line (Figure 2). These patches retain a good cover of healthy River Red-gum with a Lignum dominated understorey (Plate 7). Other species include Black-anther Flax-lily *Dianella revoluta* var. *revoluta* and Common Tussock-grass *Poa labillardierei*.

Although remnants of this EVC also occur along the southern boundary, this quite degraded and is in poorer condition than vegetation remnants at the Mount Cottrell Road site.

Plate 7. Plains Swampy Woodland / Lignum Swamp Complex along Mount Cottrell Road

A patch of highly depleted Lignum Swamp also occurs along the far eastern boundary along Paynes Road (Figure 2). This area has been highly modified by past and present land management practices and hence there is little vegetative cover (Plate 9). However, Lignum is present, particularly within the road reserve, and vegetation will most likely regenerate if the land is excluded from grazing uses. Several scattered remnant trees (River Red-gum) also occur within this portion of the study area.

Plate 8. *Plains Grassy Woodland (River Red-gum) with modified understorey*

Plate 9. *Degraded Lignum Swamp site along Paynes Road*

3.4 Significant Flora Species and Communities

3.4.1 National

No nationally significant flora species were recorded during the current assessment. However, one nationally significant flora species – the endangered Small Golden Moths orchid *Diuris* sp. aff. *chryseopsis* (Basalt Plains) – was recorded in 1996 along the railway line within the study area (FIS). However, during the current assessment it was not detected.

In addition, one other nationally significant species – the vulnerable Clover Glycine *Glycine latrobeana* - has previously been recorded directly south of the southern boundary of the study area abutting Toolern Creek (FIS). A further three nationally significant species have been recorded within a 10 kilometre radius of the study area (FIS) (Appendix 1).

Four other nationally significant species not previously documented in the local area have habitat as potentially occurring within a 10 kilometre radius of the study area (DEWHA Protected Matters Search Tool) (Appendix 1).

3.4.2 State

Three state significant flora species were recorded during the current assessment – the vulnerable Arching Flax-lily *Dianella* spp. aff. *longifolia* (Benambra), the rare Fragrant Saltbush *Rhagodia parabolica* and the rare Austral Tobacco *Nicotiana suaveolens*. Arching Flax-lily (previously named Glaucous Flax-lily *Dianella longifolia* var. *grandis*) is predominantly scattered within the railway reserve, whilst Fragrant Saltbush was recorded within the far western portion of the study area west of Rees Road (Plate 2) and along the banks of Toolern Creek. Austral Tobacco has also been recorded along the banks of Toolern Creek.

An additional 21 state significant flora species have previously been recorded within the local area (Appendix 1) with two of these species – the poorly known Black Roly-poly *Sclerolaena muricata* var. *muricata* and the vulnerable Buloke Mistletoe *Amyema linophylla* subsp. *orientale* - recorded immediately south of the southern study area boundary (FIS).

3.4.3 Regional and local

Over 50 regionally significant flora species were recorded within the study area during the assessment.

All other indigenous species are considered to be of local significance due to the depletion of native vegetation in the local area.

3.4.4 Significant communities

One nationally threatened vegetation community occurs within the precinct. This is Plains Grassland which forms part of the EPBC Act listed 'Natural Temperate Grasslands of the Victorian Volcanic Plain'. This community is currently listed as 'critically endangered' under the EPBC Act.

The DEWHA Protected Matters Search Tool indicates that that no other nationally threatened ecological communities are likely to occur within, or immediately adjacent to the study area.

There are remnants of three vegetation communities currently listed as threatened under the FFG Act within the study area: *Grey Box – Buloke Grassy Woodland Community, Western (Basalt) Plains Grassland Community* and *Western Basalt Plains (River Red-gum) Grassy Woodland Floristic Community 55-04.*

4 NATIVE FAUNA WITHIN THE PRECINCT

The following is based on results from the previous flora and fauna assessments undertaken within the study area (Ecology Partners Pty. Ltd. 2008).

Present assessment

The study area supports habitat for a range of native fauna species in both modified and natural remnant grassland habitat. During the present assessment, a total of 40 bird species (32 native, eight introduced), five mammal species (two native, three introduced), two native reptiles and two native frogs were detected (Ecology Partners Pty. Ltd. 2008).

4.1 Faunal Habitats

The study area supports several habitat types, including remnant woodland, Toolern Creek, remnant Lignum wetlands, scattered remnant trees, planted trees and shrubs, farm dams, native grassland and introduced pasture/grassland. The overall value of habitats within the study area for fauna ranges from low for pasture up to moderate for remnant woodland.

Much of the land within the study area has previously been cleared for agriculture, and is currently or has recently been used for livestock grazing, cropping activities or other industry.

Remnant Woodland – Corresponding EVCs: Creekline Grassy Woodland (EVC 68), Plains Grassy Woodland (EVC 55_61) and Plains Woodland (803)

Creekline Grassy Woodland (River Red-gum) is present along the length of Toolern Creek (see description of Toolern Creek below). This woodland has undergone past disturbance and has a modified understorey of weeds, pasture grasses and aquatic vegetation, with scattered surface and escarpment rock present. The majority of River Red-gums along the creek are mature and hollow-bearing.

Small remnant patches of Plains Grassy Woodland (River Red-gum) are present along the railway line and on private land in the east of the study area. The understorey in these remnants is either absent or highly modified, and lacks important habitat features (e.g. dense native vegetation, ground debris) required by many fauna.

Plains Woodland (Grey Box) is present in scattered remnants across the study area. The largest remnants are present in the south of the study area, one near the intersection of Exford Road and the Melton Reservoir, one remnant approximately one kilometre to the east of Toolern Creek, and another remnant 300 metres to the west of Mount Cottrell Road. Smaller remnants are scattered on the escarpments along Toolern Creek and near Melton Reservoir, and on land to the east and west of Toolern Creek (Figure 2). The majority of these remnants are highly disturbed and lack key understorey elements.

Remnant vegetation along Toolern Creek is likely to contribute to a wildlife corridor, provides potential habitat for a small number of threatened or near-threatened fauna species, and is considered to be of moderate habitat quality for fauna. The small patches of this habitat within the study area are typically floristically and structurally deficient due to past land clearing, grazing and ongoing invasion from pasture grasses and weeds. Nevertheless, this area provides important habitat for a diversity of fauna (principally for woodland birds), particularly in areas that have been extensively cleared for agriculture, and are considered to be of low to moderate habitat quality for fauna.

Remnant woodland, albeit quite modified, provides habitat for a small number of ground dwelling mammals (e.g. Eastern Grey Kangaroo), introduced species such as carnivores (e.g. Red Fox) and also herbivores (European Rabbit, Brown Hare).

This habitat type also provides a resource for a range of fauna including diurnal raptors (e.g. Brown Falcon, Nankeen Kestrel, Black-shouldered Kite) and nocturnal raptors (e.g. Southern Boobook, Tawny Frogmouth, Barn Owl), which would use this area periodically in search of prey or potentially for breeding. Avian raptors would also utilise modified forest remnants and scattered trees for perching, roosting and foraging activities.

Remnant woodland also provides a diversity of niches for other woodland dependent birds. For example, insectivorous species can forage on tree trunks and underneath bark, on leaves and flowers, and in ground debris at ground level. Eucalypts also provide an important source of food for nectar-feeding woodland birds (e.g. honeyeaters, lorikeets), and tree hollows provide nesting and denning sites for hollow-dependent mammals and birds, such as Common Ringtail Possum, Common Brush-tail Possum, Galah, Sulphur-crested Cockatoo and insectivorous bats. Threatened woodland birds such as Hooded Robin, Speckled Warbler, Brown Treecreeper, and Diamond Firetail may also utilise woodland remnants within the study area on occasion.

Toolern Creek

Toolern Creek flows in a southerly direction across the study area. Creekline Grassy Woodland (River Red-gum) is present along the length of Toolern Creek (see above description), and the creek is bounded by rocky escarpments on both sides. The creek is up to 10 metres wide and water quality is poor to moderate. Aquatic vegetation is present including sedges, rushes, Water Ribbons (*Triglochin sp.*). Creekline vegetation supports low levels of ground debris such as logs, sticks and leaves. In some locations, particularly where the creek lies adjacent to residential Melton, there are numerous weeds and scattered refuse and rubbish.

Toolern Creek is considered to be of moderate value for fauna. Pacific Black Duck, Australian Wood Duck, Southern Bullfrog and Common Froglet were detected during the site assessment, and additional common native waterbirds, frogs and reptiles are likely to utilise the creek for breeding, foraging, dispersal and cover. Regionally significant Cunningham's Skink is likely to utilise the creek escarpment habitat, and there is also potential for the nationally significant Growling Grass Frog to utilise the creek.

Remnant Lignum wetlands - Corresponding EVCs: Lignum Swamp (EVC 104) and Plains Swampy Woodland/Lignum Swamp Complex (EVC 784)

There are several patches of Lignum Swamp along the railway reserve, and along Paynes Road in the far east of the study area. Plains Swampy Woodland/Lignum Swamp Complex is present on private property off Mount Cottrell Road immediately north of the railway line and at the southern boundary of the study area, and also on Alfred Road. Lignum Swamp consists of wetland dominated by Tangled Lignum *Muehlenbeckia florulenta,* while Plains Swampy Woodland/Lignum Swamp Complex (EVC 784) consists of an overstorey dominated by scattered River Red-gum *Eucalyptus camaldulensis* with a Tangled Lignum understorey. The condition of these remnants varies, from highly modified and disturbed (e.g. Paynes Road swamp) to fairly intact. The remnant to the north of the railway line on Mount Cottrell Road is in the best condition, with a thick understorey of Tangled Lignum and moderate levels of leaf litter, woody debris and surface rock. Woodland trees provide foraging and nesting habitat for a number of woodland birds and hollow-dependant species (see remnant woodland description above). Shrubby plants such as Lignum provide shelter for small birds (e.g. Superb Fairy-wren, Yellow-rumped Thornbill), along with concealment for Eastern Grey Kangaroo.

When inundated, the wetland provides potential habitat for numerous wetland-dependent bird species, and habitat for a range of frogs (e.g. regionally significant Common Spadefoot Toad).

Scattered remnant trees

Isolated remnant trees (River Red-gum and Grey Box) provide moderate habitat value for fauna. Many mature trees are scattered throughout the study area, with River Red-gum predominantly in the east and Grey Box to the west.

The native understorey vegetation has been totally removed and replaced by exotic grasses and weeds. Several of these trees support varying sized hollows.

Few fauna are likely to use this habitat, primarily woodland birds and birds adapted to cleared landscapes. Tree hollows provide a valuable roosting, nesting and foraging resource for a suite of birds such as Sulphur-crested Cockatoo, and micro-bats. Remnant trees also provide nesting sites and vantage points for raptors and suitable foraging habitat for a range of insectivorous and nectar-feeding birds.

Planted trees and shrubs

A small number of planted trees and exotic shrubs are present within the study area, predominantly along fencelines and within the vicinity of current residences or former house sites. Planted vegetation provides a foraging resource for birds, whilst also providing shelter and dispersal habitat for a suite of native fauna. In addition, mature trees provide nesting sites and vantage points for raptors and potentially support tree hollows. Low-growing shrubs provide habitat for smaller passerine birds such as wrens, thornbills and fantails.

Artificial waterbodies (farm dams)

An unknown number of farm dams occur within the study area. Artificial waterbodies provide foraging habitat for several native fauna, including waterbirds, such as Australian Wood Duck and Pacific Black Duck, frogs, and a diversity of invertebrate species.

Native Grassland

Small patches of remnant native grassland remain in the study area, scattered along the railway reserve and near the junction of the rail reserve and Toolern Creek. There are also large areas of native grasses such as Wallaby Grass (*Austrodanthonia sp*.) that have regenerated on land that was formerly used for cropping, predominantly in the east of the study area.

Due to the small size of the grassland remnants and their isolation, few native species are likely to use this habitat, principally birds adapted to modified habitats such as Magpie-lark, Australian Magpie, Galah and Sulphur-crested Cockatoo. Raptors (Brown Falcon, Nankeen Kestrel, Black-shouldered Kite) would search for prey items over this habitat, and introduced species (Common Starling, House Sparrow) were also prevalent in this habitat. The rail reserve also provides potential (albeit low likelihood) habitat for the nationally significant Striped Legless Lizard. The large areas of regenerated native grasses on private land also provide potential habitat (albeit low likelihood) for Striped Legless Lizard and Golden Sun Moth. However, previous land use (e.g. ploughing and cropping) is likely to have removed any animals that may have previously inhabited the area, and therefore there is a low likelihood of these nationally significant species occurring in regenerated grassland. Nevertheless, although these species are unlikely to occur in the area, their presence cannot be totally discounted.

Introduced Grassland

Introduced pasture/grassland occurs throughout the study area where remnant native vegetation has been removed, and/or where the soil has previously been disturbed. Much of the land within the study area has previously been cleared for agriculture, and is currently or has recently been used for livestock grazing, cropping activities or other industry.

Grassland comprises almost exclusively pasture grasses with small patches of native grasses typically less than a metre high. In some locations little or no surface rock remains, whereas in other locations some surface rock is still present. This habitat type is considered to be of low habitat value for fauna.

Few native species are known to use this habitat, principally birds adapted to modified habitats such as Magpie-lark, Australian Magpie, Galah and Sulphur-crested Cockatoo. Raptors (Brown Falcon, Nankeen Kestrel, Black-shouldered Kite) would search for prey items over this habitat, and introduced species (Common Starling, House Sparrow) were also prevalent in this habitat.

The large area of modified grassland in the north of the study area provides potential (albeit low likelihood) habitat for the nationally significant Striped Legless Lizard.

Although this habitat does not provide important habitat for fauna per se, it does provide dispersal opportunities for reptiles, frogs and potentially small mammals into higher quality habitats (i.e. remnant woodland) within the study area.

4.2 Significant Fauna

The following is a summary of the information provided in Ecology Partners Pty. Ltd. (2008).

4.2.1 National

No nationally significant fauna were recorded in the study area during the present assessment.

Eight nationally significant fauna listed under the EPBC Act have previously been recorded from the local area (AVW) (Appendix 2). A further seven EPBC Act species not previously documented on the AVW, or habitat for these species, are identified as potentially occurring within a 10 kilometre radius of the study area (EPBC Act Protected Matters Search Tool) (Appendix 2). A description of the nationally significant species previously recorded within the study area is provided below (Table 1).

There is potential habitat (albeit low quality) for two nationally listed species, and a description is provided below.

Striped Legless Lizard ***Delma impar***

The Striped Legless Lizard is a small reptile, up to 300 millimetres long. It is variable in colour, but most often grey-brown above, paler underneath, with a series of dark brown or black stripes running along the length of the body, starting at the neck (Cogger 1996). The head is darker than the rest of the body.

The species appears similar to a small snake, but can be differentiated by the presence of an easily visible ear opening behind the eye, which snakes lack.

This species inhabits lowland native grasslands, typically dominated by native tussock forming grass species such as Kangaroo Grass and spear grasses *Austrostipa* spp. It tends to occur near surface rock or rock piles, such as those found within the study area. It feeds on invertebrate prey and is considered a selective arthropod feeder. Before European settlement the species was probably quite common across the Victorian Volcanic Plains, although subsequent loss and modification of native grassland areas have reduced the available habitat for this species. In Victoria, the species primarily occurs around the basalt plains to the west of Melbourne, and in areas around Ballarat and Bendigo (Hadden 1995; AVW 2007).

The Striped Legless Lizard is listed as endangered in Victoria and is considered vulnerable on a national scale (DSE 2007). There are 23 records of this species in the local area documented on the AVW (2007), most recently from 1991.

Although Striped Legless Lizard was not recorded within the study area during the current assessment, there is potentially suitable habitat for this species in remnant native grassland scattered along the study area. This species may also use modified grassland within the study area, particularly where scattered piles of surface rock have been constructed adjacent to grassland.

Targeted surveys are currently being undertaken for Striped Legless Lizard within potentially suitable habitats within the precinct.

Golden Sun Moth ***Synemon plana***

The Golden Sun Moth occurs in native grassland, generally dominated by greater than 40% cover of Wallaby Grass, in particular *Austrodanthonia carphoides* (DSE 2004) but may also inhabit areas dominated by *Themeda triandra* (Endersby and Koehler 2006). Prior to European settlement, the Golden Sun Moth was widespread and relatively continuous throughout its range, inhabiting grassy open woodlands and grassland, although it currently inhabits small isolated sites (DSE 2004). Individuals spend two or more years in an underground larval stage, associated with the root systems of grasses.

Adults emerge to breed during specific weather conditions from mid-November to mid-December, and live for approximately two days. It is speculated that populations not seen one year may emerge the next, which is consistent with the two-year larval stage of the species (Endersby and Koehler 2006). Golden Sun Moth is threatened by habitat loss, disturbance and fragmentation due to agricultural expansion and urbanisation. Populations have been isolated and fragmented, impeding the ability of the relatively immobile females to recolonise areas, thereby reducing the likelihood of genetic exchange (DSE 2004). The maximum flight distance of male Golden Sun Moths from breeding habitat has been reported to be 100 metres, although Endersby and Koehler (2006) contest males may fly as far as 400 metres.

No previous AVW records exist for this species in the local area, and the species was not detected during the current assessment. There are areas of suitable, sub-optimal habitat within the study area (Figure 6): remnant native grassland containing *Themeda triandra* and scattered *Danthonia sp*. which mainly occur within the area of the BioSite Reserves. However, these areas are isolated, small, and surrounded by exotic grassland/pasture, and the likelihood of occurrence is considered low.

Targeted surveys are currently being undertaken for Golden Sun Moth within potentially suitable habitats within the precinct.

4.2.2 State

No state significant fauna were recorded within the study area during the present assessment. Thirty-four state significant fauna have previously been documented from within 10 kilometres of the study area on the AVW (Appendix 2). The likelihood of these species occurring in the study area is provided in Appendix 2.

These fauna comprise:

- Two mammal species: Brush-tailed Phascogale, Common Dunnart;
- Two birds primarily restricted to coastal or inter-tidal habitats: Caspian Tern, Common Sandpiper;
- Eleven wetland-dependent birds: Royal Spoonbill, Baillon's Crake, Eastern Great Egret, Gull-billed Tern, Brolga, Little Egret, Blue-billed Duck, Australasian Shoveler, Hardhead, Musk Duck, Freckled Duck;
- Two diurnal raptors: White-bellied Sea-Eagle, Black Falcon;
- Three nocturnal raptors: Barking Owl, Powerful Owl, Masked Owl;
- Seven woodland birds: Hooded Robin, Crested Bellbird, Grey-crowned Babbler, Speckled Warbler, Brown Treecreeper, Painted Honeyeater, Diamond Firetail;
- One grassland bird: Red-chested Button-quail,
- One frog species: Brown Toadlet;
- One reptile: Tree Goanna; and,
- Four butterflies: Amethyst Hairstreak Butterfly, Fiery Jewel Butterfly, Southern Purple Azure Butterfly, Yellow Sedge-skipper.

Hardhead and Eastern Great Egret may on occasionally utilise Toolern Creek, while Australasian Shoveler, Freckled Duck and Musk Duck may utilise the creek on rare occasions.

Diamond Firetail and Brown Treecreeper have previously been recorded within the study area. Diamond Firetail may be a frequent visitor to remnant woodland, Brown Treecreeper and Speckled Warbler may be occasional visitors, and Crested Bellbird, Hooded Robin, and Grey-crowned Babbler may be rare visitors.

Black Falcon may visit the area on rare occasions, while nocturnal raptors Barking Owl and Powerful Owl may visit woodland areas on rare occasions. Brown Toadlet may be found in the study area occasionally to rarely, in low-lying areas such as Lignum Swamp.

4.2.3 Regional and local

No regionally significant fauna were recorded during the assessment. At least 18 regionally significant fauna species have been recorded from the local area.

Common Spadefoot Toad is likely to be a resident of the study area, as the species was heard calling in November of this year from a wetland on Rees Road approximately 300 metres north of the study area (Organ pers. obs.). Cunningham's Skink and Little Whip Snake are also possible residents of the study area.

There is also potential for Nankeen Night Heron to use Toolern Creek, particularly in areas with aquatic vegetation. Spotted Harrier, Black-eared Cuckoo and Black-chinned Honeyeater may utilise woodland remnants.

All other native fauna (primarily forest or woodland dependent birds) are of local significance, as they are not listed as rare or threatened on a national, state and regional level.

Table 1. Fauna of national conservation significance either recorded within (AVW), or predicted to occur within the study area EPBC Act Protected Matters Search Tool (PMST).

Species	Description	Con. Status	Records in the local area (AVW)	Occurrence with the study area
		NATIONALLY SIGNIFICANT FAUNA		
Plains-wanderer – *Pedionomus torquatus*	This cryptic bird was once distributed widely across native grassland areas but now rarely occurs in the Melbourne area. It now primarily occurs in large areas of remnant grassland such as Terrick Terrick National Park, in the north of the state.	V, cr, L Endangered under the Action Plan	Plains-wanderer has previously been recorded on one occasion (1974) in the local area (AVW)	This species is may be a vagrant visitor to the study area. There was a recently confirmed record of this species a in the local area (i.e. near Eynesbury Estate, Ballan Road, approximately 25 kilometres north west of Werribee).
Australian Painted Snipe - *Rostratula benghalensis*	Australian Painted Snipe is generally found in shallow inland wetlands (freshwater or brackish) (Garnett and Crowley 2000), and is a cryptic bird, which is often overlooked. It is believed to be nomadic, temporarily occupying areas where suitable habitat exists. There are few records of this species throughout Victoria's western district. It prefers shallow wetlands that are well-vegetated, where it nests in dense tussocks of reeds, sedges or rushes on muddy islands. The Australian Painted Snipe feeds on wetland vegetation and invertebrates (Marchant and Higgins 1993).	V, cr, L Vulnerable under the Action Plan	Australian Painted Snipe has previously been recorded on one occasion (1989) in the local area.	There are no suitable wetland habitats within the study area, therefore it is unlikely that this species is a resident within the study area.
Swift Parrot - *Lathamus discolor*	The Swift Parrot is a small to medium parrot, which resembles lorikeets in its behaviour (noisy, active and conspicuous) and flight. It breeds in Tasmania and on some of the Bass Strait islands in summer and migrates to south-eastern mainland states in winter. In Victoria, it primarily occurs north of the divide throughout Box-Ironbark Woodland and dry forests where it principally feeds on flowering eucalypts, psyllids and lerp. This species is also occasional observed in suburban parks and gardens where it feeds almost exclusively on nectar of planted eucalypts.	E, e, L Endangered under the Action Plan	Swift Parrot has previously been recorded in the local area on 10 occasions, most recently in 2001 (AVW)	While the study area supports remnant mature eucalypts which may be used by Swift Parrots on rare occasions, it does not constitute important habitat for this species (i.e. large numbers of birds area unlikely to regularly visit the study area during migration).
Grey-headed Flying-fox – *Pteropus poliocephalus*	This species is a large frugivorous bat that was formerly an autumn-winter visitor to areas throughout Victoria. However, it has now established two permanent colonies in Victoria – Yarra River, Ivanhoe and Dowell Creek on Mallacoota Inlet, East Gippsland. This species can travel long distance at night in search of food, and small aggregations are known to forage widely throughout the state (i.e. quite nomadic).	V, v, L Vulnerable under the Action Plan	Grey-headed Flying-fox has previously been recorded on one occasion (1968) in the local area (AVW)	While small numbers may fly over the study area between major camp and roosting sites, or periodically stop and feed on flowering eucalypts, an ecologically significant proportion of the population is unlikely to regularly use habitats within the study area.
Striped Legless Lizard – *Delma impar*	Striped Legless Lizard inhabits lowland native grasslands, typically dominated by native tussock forming grass species such as Kangaroo Grass and spear grasses *Austrostipa* spp. The species feeds on invertebrate prey and is considered as a selective arthropod feeder. Before European settlement the species was probably quite common across the Victorian Volcanic Plains,	V, e, L Vulnerable under the Action Plan	Striped Legless Lizard has previously been recorded in the local area on 23 occasions, most recently in 1991 (AVW)	The modified grassland area in the north of the study area provides potential habitat. Suitable habitat structure is present (tussocky grasses and presence of surface rock) and although the site is weedy it still comprises suitable habitat for the species. However, previous land use appears to have included ploughing and cropping,

Species	Description	Con. Status	Records in the local area (AVW)	Occurrence with the study area
	although subsequent loss and modification of native grassland areas have reduced the available habitat for this species. In Victoria, the species primarily occurs around the basalt plains to the west of Melbourne, and areas around Ballarat and Bendigo (AVW, Hadden 1995). It is a highly cryptic species and is known to utilise substantially modified grasslands as long as the structural complexity (tussocky grasses) is present.			which is likely to have removed animals inhabiting the area. In addition, the site is not adjacent to any significant areas of suitable habitat from where lizards could recolonise the site. However, although the species is unlikely to occur in the area, the presence of Striped Legless Lizards cannot be totally discounted. There is also potential suitable habitat along the rail reserve within the study area.
Growling Grass Frog - *Litoria raniformis*	The Growling Grass Frog was once widespread throughout south-eastern Australia, but over the past 20 years its range has contracted throughout many areas due to a number of threatening processes. In Victoria, this species is widely distributed throughout most regions, with the exception of Mallee and Alpine areas where climatic and habitat conditions are not suitable. The species prefers permanent or semi permanent waterbodies to breed, although is has also been known to successfully breed in ephemeral waterbodies (Aaron Organ pers. comm.).	V, e, L Vulnerable under the Action Plan	There are 41 documented records of the species from the local area, the most recent from 2001 (AVW). Of these, one record is from within the study area and two are on the study area boundary (1988).	In 1988 this species was recorded at the now highly modified Lignum Swamp on Paynes Road, and immediately outside the study area to the east of Paynes road and to the west of Mount Cottrell Road (Figure 7). There are also numerous additional records from the surrounding area. This species prefers permanent or semi-permanent waterbodies, with areas of open water and vegetation with particular structural attributes. The study area is lacking in suitable habitat for this species, however there is potential (albeit low likelihood) for Growling Grass Frog to utilise Toolern Creek on occasion.
Macquarie Perch - *Macquaria australasica*	The Macquarie Perch reaches a maximum size of approximately 46 centimetres, ranging from a silvery-grey to olive-brown colour (Allen *et al.* 2002). This species prefers slow-flowing and deep, rocky pools in cool, clear waters. In Victoria it occurs in the Murray River and its tributaries, and in the Yarra River system (Allen *et al.* 2002; DEWHA 2007). An important population of this species occurs in the Yarra River near Warrandyte in Victoria (DEWHA 2007).	E, e, L Density Dependant under the Action Plan	There are three historic records of the species from the local area, the most recent record from 1926 (AVW).	This species was historically recorded from the current location of the Melton Reservoir (Figure 7). There is no suitable habitat for this species within the study area.
Smoky Mouse – *Pseudomys fumeus*	The Smoky Mouse occurs in the eastern Highlands, East Gippsland, Otway Range, Snowfields, and the Grampians. It is unknown whether the species still persists at the later site. This species has been recorded from a variety of vegetation communities, ranging form coastal heath and heathy woodland in East Gippsland to subalpine heath and dry forest. The understorey vegetation at sites primarily comprising heathy species (Ford, *et. al.* 2003), with a positive relationship between fire frequency and intensity, and the presence of the species at a given site	E, L	There have been no documented records from the local area.	There is no suitable habitat for this species within the study area.
Spot-tailed Quoll – *Dasyurus maculatus maculatus*	The Spot-tailed Quoll is the largest surviving marsupial carnivore on the mainland of Australia. Historically, this species had a broad distribution in Victoria, excluding the Mallee, Wimmera, Northern Plains and Alpine areas (Mansergh 1995). It now survives in several discrete areas primarily in eastern Victoria, the Otway Ranges, Strzelecki Ranges, Macedon Ranges, and South-western Victoria (e.g. Mt Eccles National Park).	V, e, L	There have been no documented records from the local area.	There is no suitable habitat for this species within the study area.

Species	Description	Con. Status	Records in the local area (AVW)	Occurrence with the study area
Regent Honeyeater – *Xanthomyza phrygia*	Regent Honeyeaters are highly mobile species, rarely observed at a particular site for extended periods of time unless breeding. This species was formerly distributed within about 300 km of the eastern Australian coast from about 100 km north of Brisbane to Adelaide (Menkhorst 1993). In Victoria, it occurs mainly in dry open forest and woodland on inland slopes of the Great Dividing Range. While they also occasionally visit coastal East Gippsland and areas around Melbourne, the key location in Victoria where the species frequents is Chiltern - Mt Pilot National Park (northeast Victoria). It is believed that between 70 and 100 birds remain in Victoria.	E, e, L Endangered under the Action Plan	There have been no documented records from the local area.	The study area supports remnant eucalypt woodland which may provide highly marginal habitat for Regent Honeyeater, however the majority this does not constitute important habitat for this species (i.e. large numbers of birds area unlikely to regularly visit the study area).
Grassland Earless Dragon - *Tympanpcryptis pinguicolla*	The Grassland Earless Dragon inhabits native grassland with a preference for tussock grasslands dominated by wallaby grasses *Austrodanthonia* spp., Spear grasses *Austrostipa* spp., Poa Tussock *Poa sieberiana*, Red Grass *Bothriochloa macra*, and occasionally Kangaroo Grass *Themeda australis* (Robertson and Cooper 2000). The range of Grassland Earless Dragon has undergone a dramatic decline, with the last confirmed records in the Melbourne area from the 1960's. More recent (1988-1990) but unconfirmed sightings in Melbourne are from the upper Merri Creek, Holden Flora and Fauna Reserve in Sunbury, Little River in Werribee, and from Craigieburn (Robertson and Cooper 2000). Major threats to this species are habitat loss, fragmentation and degradation, and impacts from introduced animals.	E, cr, L Vulnerable under the Action Plan	There have been no documented records from the local area.	There is marginal habitat for this species, which is unlikely to occur within the study area.
Australian Grayling *Prototroctes maraena*	Concern about this species has arisen from the extinction of its only close relative, the New Zealand Grayling, without warning and with no explanation. Much of the basic biological information of this species remains unknown, particularly regarding population dynamics, threatening processes and recruitment processes. In Victoria it occupies coastal drainages south of the Great Dividing Range in clear, moderate to fast flowing water, in the upper reaches of rivers (Allen *et al.* 2002). It is typically located in gravelling pools, and often detected in small to large aggregations downstream of in-stream barriers (e.g. weirs).	V, v, L	There have been no documented records from the local area.	This species is unlikely to occur within the study area.
Dwarf Galaxias *Galaxiella pusilla*	This relatively small (20-40 mm), short-lived fish is often found in shallow water amongst heavy vegetation at the edges of still, or slow flowing water (Allen *et al.* 2002). Is inhabits a range of waterbody types including small ponds, billabongs, swamps, backwaters and drains. The Dwarf Galaxias rarely occurs in areas where the introduced Plague Minnow *Gambusia holbrooki* has become established, and this species is often only found in ephemeral wetlands. It has a patchy distribution within its range, and whilst it may be locally abundant in a few areas it has suffered greatly from loss of habitat due to drainage of wetlands and the spread of Plague Minnow.	V, v, L	There have been no documented records from the local area.	This species is unlikely to occur within the study area.

Species	Description	Con. Status	Records in the local area (AVW)	Occurrence with the study area
Golden Sun Moth - *Synemon plana*	The Golden Sun Moth is a small diurnal moth that occurs in temperate grasslands and grassy woodlands dominated by tussocks of wallaby grass. It prefers areas of bare ground interspersed with grassy tussocks for cover. Females rarely fly (O'Dwyer *et al.* 2000; DEWHA 2008).	CE, e, L	There have been no documented records from the local area on the AVW. In 2006, the species was detected in grassland approximately 2 kilometres to the SE of the study area (Hamer and Hynes 2007).	The large areas of regenerated native grasses provide potential habitat. Suitable habitat structure is present (tussocky *Danthonia* grasses). However, previous land utilisation appears to have included ploughing and cropping, which is likely to have removed animals inhabiting the area. In addition, the site is not adjacent to any significant areas of suitable habitat, and Golden Sun Moth is unlikely to recolonise the site from distant locations. However, although the species is unlikely to occur in the area, its presence cannot be totally discounted. There is also some potential suitable habitat along the rail reserve within the study area.

Notes: CE = Critically Endangered, E = Endangered, V = Vulnerable (EPBC Act), ce = critically endangered, e = endangered, v = vulnerable, nt = near threatened (DSE 2007), L = Listed under the FFG Act

4.2.4 Management/protection measures for fauna within the precinct

Potential direct impacts to native fauna values within the study area may include:

- Decline or loss of potential habitat (albeit marginal habitat) for nationally significant fauna species including Striped Legless Lizard, Growling Grass Frog, Swift Parrot and Grey-headed Flying-fox;

- If remnant eucalypts are removed or if remnant vegetation undergoes further disturbance, the decline or loss of potential habitat (albeit marginal habitat) for fauna species of state significance (Diamond Firetail, Brown Treecreeper, Speckled Warbler and Black Falcon) and regional significance (Nankeen Night Heron, Spotted Harrier and Black-eared Cuckoo);

- If there are further changes to the natural hydrological processes of the land, in particular the flooding of ephemeral wetlands such as Lignum Swamp (e.g. frequency of flooding, water volume, intensity of flooding, water temperature and water quality), this could result in the decline or loss of potential habitat (albeit marginal habitat) for frog species Brown Toadlet (state significance) and Common Spadefoot Toad (regional significance), state significant waterbirds including Australasian Shoveler, Eastern Great Egret, Royal Spoonbill and Hardhead, and the regionally significant Little Whip Snake;

- If there are further changes to the natural hydrological processes of the land, in particular the drainage of water into Toolern Creek (e.g. frequency of flooding, water volume, intensity of flooding, water temperature and water quality), this could result in the decline or loss of habitat for several native fauna species both within the study area and downstream;

- Increased urbanisation along Toolern Creek and in the vicinity of remnant native vegetation could result in increased predation of native fauna by domestic animals;

- Increased urbanisation may lead to increased levels of rubbish, refuse and weed incursion along Toolern Creek and native vegetation remnants, leading to decreases in habitat quality; and,

- Decreases in population sizes of local fauna species.

Indirect effects on adjacent areas are also possible if any construction activities and drainage are not appropriately managed, and these may include:

- Indirect impacts to adjoining native vegetation/habitat, and potential offsite affects such as alterations to the flooding regimes and/or water quality entering nearby wetlands and drainage lines;

- Potential for further spread of weeds and soil pathogens from on-site activities; and,

- Disturbance to wildlife from increased human activity and increased noise in the area.

Measures that could be used to minimise impacts upon terrestrial values present within the study area associated with future development include:

- Avoiding all areas of native vegetation, particularly along Toolern Creek the low-lying areas and the vegetation on the edges of the study area;

- A suitable buffer of least a 50 metres (preferably fenced) is recommended between the Toolern Creek escarpment and any development of the surrounding area to limit further habitat degradation and potential predation of native fauna. However, the width of the buffer is likely to vary depending upon the location of native vegetation and topography, and may not necessarily be consistently 50 metres wide along the entire length. A standard post and wire fence (or rabbit proof fence) should be constructed around this buffer to limit human access, and if possible fencing should exclude pets from entering the wetland area. Weed control should be undertaken in this area;

- The treatment of the buffer area should include indigenous grasses and scattered eucalypts, although natural regeneration beyond the existing areas of native vegetation should be encouraged. If revegetation is to be undertaken, plants should be locally indigenous species appropriate to Riverina Plains Grassy Woodland (EVC 55_62) or Creekline Grassy Woodland EVC (68), and preferably be sourced from local plant stock;

- It is recommended that a buffer zone of at least 20 metres be implemented around the wetlands within the study area, to limit the further degradation and potential predation of native fauna. A standard post and wire fence (or rabbit proof fence) should be constructed around this buffer to limit human access, and if possible fencing should exclude pets from entering the wetland area. Wetlands can be revegetated, or natural regeneration could be encouraged to increase the habitat value of wetlands. If possible, fencing should exclude pets from entering remnants to limit predation of native fauna. Weed control should also be undertaken in these areas;

- Install fencing to prevent the public and livestock access to patches of remnant vegetation, including along the rail reserve. Remnants can be revegetated, or natural regeneration could be encouraged to increase the habitat value of remnants. If possible, fencing should exclude pets from entering remnants to limit predation of native fauna. Weed control should also be undertaken in these areas;

- Consider linking remaining patches of remnant vegetation by revegetation, to protect remaining remnant vegetation, create wildlife corridors and increase the area of available habitat for fauna. If revegetation is to be undertaken, plants should be locally indigenous species appropriate to the relevant EVC, and preferably be sourced from local plant stock;

- If any parts of the rail reserve or modified grassland in the north of the study area are proposed to be disturbed, targeted fauna surveys for Striped Legless Lizard may be required;
- Natural hydrological processes should be maintained. For example, water entering wetlands should not contain elevated levels of nutrients, chemicals or other pollutants, or be increased or decreased in volume;
- Ensure that development does not increase the frequency of flooding events and that the water drains away naturally (i.e. there are no drains constructed to remove water from the wetland);
- Educate future residents about the ecological value of adjoining remnant vegetation and about the issues of environmental weeds and pets on these ecosystems;
- All contractors should be aware of areas of ecological value and penalties should be imposed if vegetation is removed or disturbed without permission, or outside the area of works;
- Best practice sedimentation control measures should be undertaken in the vicinity of the wetland, drainage lines and depressions;
- Areas of ecological value should be fenced and identified as 'no go' areas prior to and during construction; and,
- Where possible, construction stockpiles, machinery, roads, and other infrastructure should be placed away from areas supporting native vegetation and/or drainage lines.

5 NET GAIN ANALYSIS

Areas of remnant indigenous vegetation and a number of Old Trees were identified within the precinct. As such as Net Gain analysis was conducted in areas of both vegetation patches (where the understorey *vegetative* cover has a greater than 25% cover of indigenous species) and trees (in patches or parcels).

Net Gain is an overall outcome where native vegetation and habitat gains are greater than vegetation and habitat losses. Victoria's *Native Vegetation Management – A Framework for Action* (NRE 2002) ('the Framework') has defined a three-step approach for applying Net Gain to protection and clearance decisions. Emphasis is placed on the first two steps, and only after these two steps have been taken should offsets (actions undertaken to achieve commensurate gains) be considered (NRE 2002). The three-step approach is:

1. To avoid adverse impacts, particularly through vegetation clearance.
2. If impacts cannot be avoided, to minimise impacts through appropriate consideration in planning processes and expert input to project design or management.
3. Identify appropriate offset options.

Once steps 1 and 2 have been considered, offsets can then be calculated based on any permitted vegetation removal. Once the overall losses are known, then offset objectives can be calculated according to Table 6 of the Framework (NRE 2002) and considering the regional Native Vegetation Plans. Offsets for any permitted vegetation loss can be achieved by improvements in the quality or extent of native vegetation in a selected 'offset area'.

5.1 Habitat Hectare Calculations

The following 'habitat hectare' calculations are based on several flora and fauna assessments conducted by Ecology Partners Pty. Ltd. (2008) and Brett Lane and Associates (2004, 2007).

Remnants of six EVCs are present within the study area – Creekline Grassy Woodland, Plains Woodland, Plains Grassy Woodland, Plains Grassland, Lignum Swamp and Plains Swampy Woodland / Lignum Swamp Complex. Separate habitat zones are all regarded as remnants of indigenous vegetation but each has different characteristics in regards to species quantity, composition and quality (Table 2).

Two additional EVCs, Lignum Wetland and Plains Grassy Woodland (Riverina) which has since been renamed Lignum Swamp (EVC 104) and Plains Woodland (EVC 803) have also been recorded in this area (Brett Lane and Associates 2004). As part of the assessment Plains Swampy Woodland EVC Benchmark was used instead of the wetland EVC Benchmark for Plains Swampy Woodland / Lignum Swamp Complex.

Table 2. Habitat Hectare Assessment Results

EVC Name			CGW	PW	PW	PW	PW	PGW	PGW	PG	PG	LS	PSW/LS#	PW^	PW	PW	PW	CGW	PW	LS**
Habitat Zone (HZ)			CGW1	PW1	PW2	PW3	PW4	PGW1	PGW2	PG1	PG2	LS1	PSW/LS	PW5	PW6	PW7	PW8	CGW 2	PW9	LS2
EVC Number			68	803	803	803	803	55	55	132_63	132_63	104	784	803	803	803	803	68	803	104
Assessment undertaken by:			EP	EP	EP	EP	EP	EP	EP	EP	EP	EP	EP	BLA	BLA	BLA	BLA	BLA	BLA	BLA
Total Area of Habitat Zone (ha)			34.05	5.95	9.55	0.67	5.85	10.47	1.8	8.48	8.48	3.95	6.29	9.99	0.37	0.2	0.18	4.77	1.28	3.28
		Max Score	Score																	
Site Condition	Large Old Trees	10	4	4	1	10	4	5	0	N/A	N/A	N/A	1	4	0	4	4	6	4	8
	Canopy Cover	5	3	5	0	5	5	2	2	N/A	N/A	N/A	4	5	5	5	5	4	5	5
	Lack of Weeds	15	0	4	9	9	6	6	6	6	6	2	6	4	4	4	4	6	4	4
	Understorey	25	10	0	10	15	10	5	15	15	10	5	5	0	0	0	0	5	0	15
	Recruitment	10	3	0	3	10	0	5	10	6	3	6	5	0	0	0	0	1	0	10
	Organic Matter	5	3	0	3	5	5	3	3	3	2	0	3	0	0	0	0	2	0	4
	Logs	5	2	0	2	2	2	0	2	N/A	N/A	N/A	2	0	0	0	0	3	0	0
Treeless multiplier		X 1.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	41	29	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Landscape value	Patch Size	10	3	4	4	1	2	1	1	4	1	1	1	4	1	1	1	1	1	1
	Neighbourhood	10	1	1	0	1	0	0	0	1	0	2	1	1	0	1	1	0	0	0
	Distance to Core	5	2	1	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	0
Habitat Score		**100**	**31**	**19**	**32**	**58**	**34**	**27**	**39**	**46**	**30**	**21**	**28**	**21**	**13**	**18**	**18**	**31**	**17**	**47**
Habitat Score as above= /100			0.31	0.19	0.32	0.58	0.34	0.27	0.39	0.46	0.30	0.21	0.28	0.21	0.13	0.18	0.18	0.31	0.17	0.47
Habitat Zone area (ha)			**34.05**	**5.95**	**9.55**	**0.67**	**5.85**	**10.47**	**1.79**	**8.48**	**0.49**	**3.94**	**6.29**	**9.99**	**0.37**	**0.20**	**0.18**	**4.78**	**1.28**	**3.28**

Habitat Hectares (score x area)		**10.56**	**1.13**	**3.06**	**0.39**	**1.99**	**2.83**	**0.70**	**3.90**	**0.15**	**0.83**	**1.76**	**2.10**	**0.05**	**0.04**	**0.03**	**1.48**	**0.22**	**1.54**
Bioregion		VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP
EVC Conservation Status		EN	EN	EN	EN	EN	EN	EN	EN	EN	EN	EN	EN	EN	EN	EN	EN	EN	EN
Conservation Significance	**Conservation Status x Habitat Score**	High	High	High	Very High	High	High	High	Very High	High	High	High	High	High	High	High	High	High	Very High
	Threatened Species Rating*	High	Med	Low	Low	Low	Low	Low	Very High	High	Low	Low	Low	Low	Low	Low	Low	Low	Low
	Other Site Attribute Rating	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Low	Low	Low	Low	Low	Low	Low
	Overall Conservation Significance (highest rating)	**High**	**High**	**High**	**Very High**	**High**	**High**	**High**	**Very High**	**High**	**High**	**High**	**High**	**High**	**High**	**High**	**High**	**High**	**Very High**
No. of Large Old Trees within Habitat Zone		151	18	9	0	23	31	2	1	0	1	8	42	0	1	4	19	2	0

Notes: CGW = Creekline Grassy Woodland, PW = Plains Woodland, PGW = Plains Grassy Woodland, PG = Plains Grassland, LS = Lignum Swamp, PSW/LS = Plains Swampy Woodland / Lignum Swamp, VVP = Victorian Volcanic Plain, EN = Endangered, N/A= Not Applicable. *Threatened species rating relates to the presence of threatened species within the habitat zone. In this instance, the threatened species considered include Austral Tobacco, Fragrant Saltbush and Buloke as well as previous records of Purple Diuris. # Plains Swampy Woodland EVC Benchmark was used instead of the wetland EVC Benchmark for Plains Swampy Woodland / Lignum Swamp Complex. ** LS = Lignum Wetland, now known as Lignum Swamp (EVC 104).

5.2 Scattered Tree calculations

A scattered tree analysis was conducted within the study area. All scattered trees were measured and assessed with the results tabulated below (Table 3) (Figure 2 and 5). The conservation significance is based on the conservation status of the species and/or EVC in accordance with DSE (2006a). Further information regarding location of scattered trees according to Parcel Number can be found in Appendix 5 (Table A6.1).

Table 3. *Quantification of Scattered Trees*

Conservation Significance	VLOT	LOT	MOT	OT	Total
Very High	4	5	3	-	**12**
High	35	74	57	2	**168**
Low	-	-	-	96	**96**
Total	**39**	**79**	**60**	**98**	**276**

Notes: VLOT = Very Large Old Tree, LOT = Large Old Tree, MOT = Medium Old Tree, OT = Other tree based on relevant EVC Benchmark. Conservation significance of scattered trees based on DSE (2006a pg. 10), EVC conservation status and species significance.

5.3 Summary of Habitat Hectare Calculations

Below are the combined results for the entire precinct based on all previous ecological assessment results provided above. Within the study area there is an estimated combined total of **32.76 habitat hectares** of High and Very High conservation significance native vegetation. This comprises:

- 3.90 habitat hectares of Very High conservation significance Plains Grassland with one Large Old Tree;
- 0.39 habitat hectares of Very High conservation significance Plains Woodland;
- 1.54 habitat hectares of Very High conservation significance Lignum Swamp;
- 0.15 habitat hectares of High conservation significance Plains Grassland;
- 12.04 habitat hectares of High conservation significance Creekline Grassy Woodland with 170 Large Old Trees;
- 8.62 habitat hectares of High conservation significance Plains Woodland with 99 Large Old Trees;
- 3.53 habitat hectares of High conservation significance Plains Grassy Woodland with 33 Large Old Trees;
- 0.83 habitat hectares of High conservation significance Lignum Swamp with one Large Old Tree; and,

- 1.76 habitat hectares of high conservation significance Plains Swampy Woodland / Lignum Swamp Complex with eight Large Old Trees.

Within the study area there is an estimated total of **276 scattered trees** of Low to Very High conservation significance comprising:

- 4 Very Large Old Trees, 5 Large Old Trees, 3 Medium Old Trees of Very High conservation significance:
- 35 Very Large Old Trees, 74 Large Old Trees, 57 Medium Old Trees, 2 Small (other) Trees of High conservation significance; and
- 96 Other Trees of Low conservation significance.

6 NATIVE VEGETATION TO BE RETAINED AND REMOVED

The following results are based on a combination of all previous assessments conducted within the precinct (Section 4.1.). Further information regarding retention/removal of native vegetation according to Parcel Number is provided below (Appendix 4).

6.1 Areas Proposed to be Retained

Approximately 94 hectares, comprising approximately 29 habitat hectares of High to Very High conservation significance remnant vegetation is proposed to be retained within the precinct (Table 4). Further information regarding retention of vegetation according to Parcel Number is provided below (Appendix 4).

6.2 Areas Proposed to be Removed

Approximately 14 hectares, comprising approximately 4 habitat hectares of High to Very High conservation significance remnant vegetation is proposed to be removed within the precinct (Table 5). Further information regarding retention of vegetation according to Parcel Number is provided below (Appendix 4).

Table 4. Quantification of Habitat Zones to be retained within precinct (including Stockland land)

Habitat Zone	CGW1	CGW2	LS1	LS2	PG 1	PG 2	PGW1	PGW2	PSW/LS	PW1	PW2	PW3	PW4	PW5	PW6	PW7	PW8	PW9
EVC No.	68	68	104	104	132_63	132_63	55	55	784	803	803	803	803	803	803	803	803	803
Conservation Status	High	High	High	Very High	Very High	High	High	High	High	High	High	Very High	High	High	High	High	High	High
Area - Other Land (ha)	**28.28**	**2.64**	**0.74**	3.28	**7.85**	**0.00**	**8.45**	**1.48**	**6.02**	**5.54**	**9.43**	**0.66**	**5.80**	0.00	0.00	0.00	0.00	0.00
Area - Stockland Land (ha)	0.00	**1.96**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**9.93**	**0.37**	**0.20**	**0.11**	**1.26**
Total Area (ha)	**28.28**	**4.6**	**0.43**	**3.28**	**7.85**	**0.00**	**8.45**	**1.48**	**6.02**	**5.54**	**9.43**	**0.66**	**5.80**	**9.93**	**0.37**	**0.20**	**0.11**	**1.26**
Habitat Score	0.31	0.31	0.21	0.47	0.46	0.30	0.27	0.39	0.28	0.19	0.32	0.58	0.34	0.21	0.13	0.18	0.18	0.17
Habitat Hectares	**8.77**	**1.43**	**0.09**	**1.54**	**3.61**	**0.00**	**2.28**	**0.58**	**1.69**	**1.05**	**3.02**	**0.38**	**1.97**	**2.09**	**0.05**	**0.04**	**0.02**	**0.21**

Notes: CGW = Creekline Grassy Woodland, PW = Plains Woodland, PGW = Plains Grassy Woodland, PG = Plains Grassland, LS = Lignum Swamp.

Table 5. Quantification of Habitat Zones and Patches to be removed within precinct (including Stockland land)

Habitat Zone	CGW1	CGW2	LS1	LS2	PG 1	PG 2	PGW1	PGW2	PSW/LS	PW1	PW2	PW3	PW4	PW5	PW6	PW7	PW8	PW9
EVC No.	68	68	104	104	132_63	132_63	55	55	784	803	803	803	803	803	803	803	803	803
Conservation Status	High	High	High	Very High	Very High	High	High	High	High	High	High	Very High	High	High	High	High	High	High
Area - Other Land (ha)	**5.77**	**0.10**	**3.56**	**0.00**	**0.63**	**0.49**	**2.02**	**0.32**	**0.27**	**0.41**	**0.12**	**0.01**	**0.05**	0.00	0.00	0.00	0.00	0.00
Area - Stockland Land (ha)	0.00	**0.07**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.06**	**0.00**	**0.00**	**0.07**	**0.02**
Total Area (ha)	**5.77**	**0.17**	**3.52**	**0.00**	**0.63**	**0.49**	**2.02**	**0.32**	**0.27**	**0.41**	**0.12**	**0.01**	**0.05**	**0.06**	**0.00**	**0.00**	**0.07**	**0.02**
Habitat Score	0.31	0.31	0.21	0.47	0.46	0.30	0.27	0.39	0.28	0.19	0.32	0.58	0.34	0.21	0.13	0.18	0.18	0.17
Habitat Hectares	**1.79**	**0.05**	**0.74**	**0.00**	**0.29**	**0.15**	**0.55**	**0.12**	**0.07**	**0.08**	**0.04**	**0.01**	**0.02**	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**

Notes: CGW = Creekline Grassy Woodland, PW = Plains Woodland, PGW/LS = Plains Grassy Woodland/Lignum Swamp complex, PG = Plains Grassland, LS = Lignum Swamp.

6.3 Large Old Trees in Patches to be Retained

Two hundred and forty-six Large Old Trees in patches of High to Very High conservation significance are proposed to be retained within the precinct (Table 6). Further information regrading retention of Large Old Trees in patches according to Parcel is provided below (Appendix 4).

6.4 Large Old Trees in Patches to be Removed

Fifty-eight Large Old Trees in patches of High to Very High conservation significance are proposed to be removed within the precinct (Table 7). Further information regrading removal of Large Old Trees in patches according to Parcel Number is provided below (Appendix 4).

Table 6. *Quantification of Large Old Trees in Habitat Zones to be retained within precinct (including Stockland land)*

Habitat Zone	CGW 1	CGW 2	LS1	LS2	PG 1	PG 2	PGW 1	PGW2	PSW/ LS	PW1	PW2	PW3	PW4	PW5	PW6	PW7	PW8	PW9
Stockland Land	0	9	0	0	0	0	0	0	0	0	0	0	0	42	0	1	2	2
Other Land	107	10	1	0	1	0	22	1	8	17	9	0	23	0	0	0	0	0
Total	**107**	**19**	**1**	**0**	**1**	**0**	**22**	**1**	**8**	**17**	**9**	**0**	**23**	**42**	**0**	**1**	**2**	**2**

Notes: CGW = Creekline Grassy Woodland, PW = Plains Woodland, PGW/LS = Plains Grassy Woodland/Lignum Swamp complex, PG = Plains Grassland, LS = Lignum Swamp.

Table 7. *Quantification of Large Old Trees in Habitat Hectare patches to be removed within precinct (including Stockland land)*

Habitat Zone	CGW 1	CGW 2	LS1	LS2	PG 1	PG 2	PGW 1	PGW2	PSW/ LS	PW1	PW2	PW3	PW4	PW5	PW6	PW7	PW8	PW9
Stockland Land	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Other Land	44	0	0	0	0	0	9	1	0	1	0	0	0	0	0	0	0	0
Total	**44**	**0**	**0**	**0**	**0**	**0**	**9**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**

Notes: CGW = Creekline Grassy Woodland, PW = Plains Woodland, PGW/LS = Plains Grassy Woodland/Lignum Swamp complex, PG = Plains Grassland, LS = Lignum Swamp.

6.5 Scattered Trees proposed to be Retained and Removed

Two hundred and seventy six Scattered Trees are present within the precinct area. Of these trees 112 are proposed to be retained, comprising 20 Very Large Old Trees, 38 Large Old Trees, 25 Medium Old Trees and 29 Other Trees (Table 8).

One hundred and sixty four Large Old Trees are proposed to be removed within the precinct. These include 19 Very Large Old Trees, 41 Large Old Trees, 35 Medium Old Trees and 69 Other Trees (Table 11). Further information regrading retention of Scattered Trees in patches according to Parcel Number can be found in Appendix 5 (Table A6.1).

Table 8. *Quantification of Scattered Trees to be retained and removed in precinct*

	Retained	Removed	Total
VLOT	20	19	39
LOT	38	41	79
MOT	25	35	60
OT	29	69	98
Total	**112**	**164**	**276**

7 NET GAIN CALCULATIONS

7.1 Gains Required to Account for Vegetation Losses

Once steps 1 and 2 of the Net Gain Policy have been considered, (i.e. avoidance and minimisation of native vegetation loss), then offsets or Net Gain targets can be calculated for any permitted vegetation clearance. Net Gain targets or offsets can be calculated according to Appendix 4, Table 6 within the Framework (NRE 2002) or the *Port Phillip and Westernport Native Vegetation Plan* (PPWCMA 2006).

7.1.1 Habitat hectare zones

'The Framework' states if clearing is permitted, at least 2.0 times the calculated loss of Very High conservation significance vegetation and at least 1.5 times the loss of High conservation significance vegetation is required as the net outcome. Offset calculations and targets for the removal of habitat hectare zones and Large Old Trees in patches have been calculated below (Table 9).

The removal of any native vegetation of 'Very High' conservation significance may require Ministerial Approval under *the Native Vegetation Framework* (2006), and must always be referred to the DSE.

Western Plains Grassland has been recently listed under the EPBC Act as a 'threatened' vegetation community. The removal of Plains Grassland of any conservation significance may require a referral to the Commonwealth Environment Minister under the EPBC Act. In order to determine whether a referral is required the proponent must correspond with the Department of Environment Water Heritage and the Arts (DEWHA).

Table 9. Net Gain habitat hectare and Large Old Tree targets in zones and targets in patches

Habitat Hectares Zones					Large Old Trees in Habitat Hectare Patches				
Conservation Significance	Target EVC	Total Losses in Habitat Ha	Net Gain Multiplier*	Net Gain Target (Habitat Ha)	Total Losses	Multiplier*	Total to be Protected	Multiplier*	Total to be Recruited
High	Creekline Grassy Woodland	1.84	1.5	**2.76**	44	4	**176**	20	**880**
High	Lignum Swamp	0.74	1.5	**1.11**	N/A	N/A	**N/A**	N/A	N/A
Very high	Lignum Swamp	1.54	2	**3.08**	N/A	N/A	**N/A**	N/A	N/A
High	Plains Grassland	0.15	1.5	**0.23**	N/A	N/A	**N/A**	N/A	N/A

Habitat Hectares Zones					Large Old Trees in Habitat Hectare Patches				
Conservation Significance	Target EVC	Total Losses in Habitat Ha	Net Gain Multiplier*	Net Gain Target (Habitat Ha)	Total Losses	Multiplier*	Total to be Protected	Multiplier*	Total to be Recruited
Very high	Plains Grassland	0.29	2	**0.58**	N/A	N/A	**N/A**	N/A	N/A
High	Plains Grassy Woodland	0.67	1.5	**1.01**	10	4	**40**	20	**200**
High	Plains Swampy Woodland/Lignum Swamp Complex	0.07	1.5	**0.11**	N/A	N/A	**N/A**	N/A	N/A
High	Plains Woodland	0.16	1.5	**0.24**	3	4	**12**	20	**60**
Very high	Plains Woodland	0.01	2	**0.02**	0	8	**0**	40	**0**
Total		**5.82**		**9.14**	**57**		**228**		**1140**

Notes: *These multipliers relate to Table 6 of the Framework, N/A = Not Applicable.

7.1.2 Scattered Trees

Based on the *Port Phillip and Westernport Native Vegetation* Plan (PPWCMA 2006) there are two strategies, 'protect and recruit' or 'recruit only', which can be considered in order to offset the permitted loss of old trees. The following protect and recruit and recruit only rations have been applied for the proposed losses of scattered trees in order to meet the requirements of the Net Gain policy (Table 10).

'The Framework' does not stipulate offset targets for the loss of Other Trees (i.e. smaller than 0.75 times the DBH of a large tree as defined by relevant EVC Benchmark). However, as gains are still required to be commensurate with losses as per the principles of the Net Gain Policy, Other Trees proposed to be removed within the precinct are to be offset via replacement ratios described in Table 3.4D, Appendix 3.4.4. of the *Port Phillip and Westernport Native Vegetation* Plan (PPWCMA 2006).

To offset the loss of 164 Scattered Old Trees (Very Large, Large and Medium of varying conservation significance) within the precinct, 343 old trees are required to be protected and 2,150 new plants are to be recruited. Alternatively 10,900 new plants can be recruited if the 'recruit only' option is utilised.

Table 10. Net Gain scattered tree targets based on the Port Phillip and Westernport Native Vegetation Plan (PPWCMA 2006) – 'not including Other Trees

Tree Size	Conservation Significance	Number of Trees to be Removed	Protect and Recruit'				'Recruit only'	
			Multiplier	Offset	Multiplier	Offset	Multiplier	Offset
VLOT	Very High	2	10	20	50	100	350	700
	High	17	5	85	30	510	180	3060
	Medium	-	4	-	20	-	140	-
	Low	-	2	-	10	-	70	-
LOT	Very High	1	8	8	40	40	240	240
	High	40	4	160	20	800	120	4800
	Medium	-	2	-	15	-	65	-
	Low	-	1	-	10	-	35	-
MOT	Very High	-	4	-	20	-	100	-
	High	35	2	70	20	700	60	2100
	Medium	-	1	-	15	-	35	-
	Low	-	1	-	10	-	30	-
Total		**164**		**343**		**2,150**		**10,900**

Notes: *These multipliers relate to the PPWCMA (2006); VLOT = Very Large Old Tree; MOT = Medium Old Tree.

The Port Phillip and Westernport Native Vegetation Plan (PPWCMA 2006) stipulates when larger numbers of Other Trees are proposed to be removed (i.e. greater than 50), it may be expedient to estimate replacement numbers using average figures derived from a representative sample. To calculate offsets, the number of trees in each defined class range must be determined and then multiplied by the preferred replacement ratio (Table 11) Species that are known to have a slow growth rate (i.e. Buloke) have a higher replacement ratio than species with faster growth rates (i.e. eucalypt spp.).

As such to achieve Net Gain, 1,206 new plants are required to offset the loss the 115 Other Trees proposed to be removed within the precinct.

Table 11. Net Gain scattered tree targets based on the Port Phillip and Westernport Native Vegetation Plan (PPWCMA 2006) – for Other Trees

Average Growth Rate				Slow Growth Rate*			
Size Class (cm)	Number of trees to be removed	Multiplier	Offset	Size Class (cm)	Number of trees to be removed	Multiplier	Offset
> 40	24	30	720	> 30	-	30	-
25 - 40	22	18	396	20 -30	1	18	18
15 - 24	10	5	50	10 -19	-	5	-
< 15	40	1	40	< 10	1	1	1
Total	**96**		**1,206**		**2**		**19**

Notes: *These multipliers relate to the PPWCMA (2006). * Slow Growth Rate relates to Buloke. * Avergage Growth Rate relates to Eucalypt spp.

7.1.3 Summary of Net Gain targets

To offset the loss of habitat hectare zones and Large Old Trees in zones there is requirement to generate within the Victorian Volcanic Plain **9.14 habitat hectares** comprising:

- 3.08 habitat hectares of Very High conservation significance Lignum Swamp;
- 0.58 habitat hectares of Very High conservation significance Plains Grassland;
- 0.02 habitat hectares of Very High conservation significance Plains Woodland;
- 5.44 habitat hectares of any High – Very High conservation significance EVC; and,
- Protect 58 Large Old Trees and recruit 2,150 new plants to offset the loss of Large Old Trees in zones.

To offset the loss of scattered trees proposed to be removed within the precinct there is requirement to:

- Protect 105 Very Large Old Trees, 168 Large Old Trees and 70 Medium Old Trees within varying EVCs and recruit 2,150 new plants within the Victorian Volcanic Plains bioregion,

OR

Recruit 10,900 new plants within the Victorian Volcanic Plains bioregion.

8 NET GAIN OFFSETS

The Net Gain calculations for native vegetation across the precinct have been calculated (Section 8). The removal of native vegetation described above requires each individual landowner to fulfil all Net Gain offset requirements calculated within this report. While Net Gain offset calculations have been completed for all areas of existing remnant native vegetation within the precinct, on application for the removal of native vegetation within the precinct a Net Gain Offset Management Plan is required in order to outline where offsets are to be generated (i.e. to ensure that Net Gain is achieved).

FIGURES

APPENDICES

Appendix 1 – Flora database results

Table A1.1. *Significant flora within 10 kilometres of the study area.*

Sources used to determine species status:
EPBC *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
DSE Advisory List of Threatened Flora in Victoria (DSE 2005)
FFG *Flora and Fauna Guarantee Act 1988* (Victoria)

National status of species (EPBC) is designated by:
CR Critically endangered
EN Endangered
VU Vulnerable
K Poorly Known

EPBC Act Protected Matters Search Tool

State status of species (FFG and DSE) is designated by:
x Extinct
e Endangered
v Vulnerable
r Rare
k Poorly Known
L Listed

Scientific Name	Common Name	Total number of records	EPBC Act 1999	DSE 2005	FFG Act 1988	Likelihood of occurrence
		NATIONAL				
Cullen parvum	Small Scurf-pea	1	EN	e	L	Unlikely
Senecio psilocarpus	Swamp Fireweed	19	VU	v	-	Unlikely
Xerochrysum palustre	Swamp Everlasting	1	VU	v	L	Unlikely
#Glycine latrobeana	Purple Clover	-	VU	-	L	Unlikely
#Dianella amoena	Matted Flax-lily	-	EN	e	-	Unlikely
#Lepidium hyssopifolium	Basalt Pepper-cress	-	EN	e	L	Unlikely
#Pimelea spinescens subsp. *spinescens*	Spiny Rice-flower	-	CR	e	L	Unlikely
#Prasophyllum frenchii	Maroon Leek-orchid	-	EN	e	L	Unlikely
#Carex tasmanica	Curly Sedge	-	VU	-	L	Unlikely
		STATE				
Acacia nano-dealbata	Dwarf Silver Wattle	1	-	r	-	Unlikely
Austrostipa rudis subsp. *australis*	Veined Spear-grass	1	-	r	-	Unlikely
Cardamine tenuifolia	Slender Bitter-cress	1	-	k	-	Unlikely
Goodia lotifolia var. *pubescens*	Silky Golden-tip	2	-	r	-	Unlikely
Helichrysum aff. *rutidolepis* (Lowland Swamps)	Pale Swamp Everlasting	7	-	v	-	Unlikely
Lachnagrostis filiformis var. 2	Wetland Blown-grass	1	-	k	-	Unlikely
Senecio glabrescens	Smooth Groundsel	1	-	r	-	Unlikely
Thelymitra luteocilium	Fringed Sun-orchid	1	-	r	-	Unlikely

Sources: Flora Information System (DSE) and Protected Matters Search Tool (DEWHA)

Appendix 2 – Significant fauna species

Table A1.2. Significant fauna within 10 kilometres of the study area.

Sources used to determine species status:

EPBC *Environment Protection and biodiversity Conservation Act 1999* (Commonwealth)
DSE Advisory List of Threatened Vertebrate Fauna in Victoria (DSE 2007)
FFG *Flora and Fauna Guarantee Act 1988* (Victoria)

Species status:

EX Extinct
RX Regionally extinct
CR Critically endangered
EN Endangered
VU Vulnerable
RA Rare
NT Near threatened
CD Conservation dependent
DD Data deficient (insufficiently or poorly known)
LR Least concern (lower risk)

L Listed as threatened under FFG Act
I Invalid or ineligible for listing under the FFG Act

\# Protected Matters Search Tool (DEWHA)
^ Museum of Victoria Butterfly Database

Common Name	Scientific Name	Last documented record	Total # of records	EPBC Act	DSE (2007)	FFG ACT	National Action Plan	Likely use of study area
NATIONAL SIGNIFICANCE								
Plains-wanderer	*Pedionomus torquatus*	1974	1	VU	CR	L	EN	Unlikely

Common Name	Scientific Name	Last documented record	Total # of records	EPBC Act	DSE (2007)	FFG ACT	National Action Plan	Likely use of study area
# Painted Snipe	*Rostratula benghalensis*	1989	1	VU	CR	L	VU	Unlikely
# Swift Parrot	*Lathamus discolor*	2001	10	EN	EN	L	EN	Rare/Vagrant
# Grey-headed Flying-fox	*Pteropus poliocephalus*	1968	1	VU	VU	L	VU	Rare/Vagrant
# Striped Legless Lizard	*Delma impar*	1991	23	VU	EN	L	VU	Potential Resident (Low Likelihood)
# Growling Grass Frog	*Litoria raniformis*	2001	41	VU	EN	L	VU	Potential Resident (Low Likelihood)
Macquarie Perch	*Macquaria australasica*	1926	3	EN	EN	L	DD	Unlikely
# Smoky Mouse	*Pseudomys fumeus*	-	-	EN	CR	L	RA	Unlikely
# Spot-tailed Quoll	*Dasyurus maculatus maculatus*	-	-	EN	EN	L	VU	Unlikely
# Regent Honeyeater	*Xanthomyza phrygia*	-	-	EN	CR	L	EN	Unlikely
# Grassland Earless Dragon	*Tympanocryptis pinguicolla*	-	-	EN	CR	L	VU	Unlikely
# Australian Grayling	*Prototroctes maraena*	-	-	VU	VU	L	VU	Unlikely
# Dwarf Galaxias	*Galaxiella pusilla*	-	-	VU	VU	L	VU	Unlikely
# Golden Sun Moth	*Synemon plana*	-	-	CR	-	L	-	Potential Resident (Moderate Likelihood)
^ Large Ant-blue Butterfly	*Acrodipsas brisbanensis cyrilus*	-	-	-	-	L	VU	Unlikely
^ Eltham Copper Butterfly	*Paralucia pyrodiscus lucida*	-	-	-	-	L	VU	Unlikely
		STATE SIGNIFICANCE						
Red-chested Button-quail	*Turnix pyrrhothorax*	1990	2	-	VU	L	-	Unlikely
Baillon's Crake	*Porzana pusilla*	1987	1	-	VU	L	-	Rare Visitor/Unlikely
Gull-billed Tern	*Sterna nilotica*	1986	1	-	EN	L	-	Unlikely
Caspian Tern	*Sterna caspia*	2000	1	-	NT	L	-	Unlikely
Common Sandpiper	*Actitis hypoleucos*	1990	1	-	VU	-	-	Unlikely
Brolga	*Grus rubicunda*	1989	2	-	VU	L	-	Unlikely
Royal Spoonbill	*Platalea regia*	2001	15	-	VU	-	-	Unlikely
Little Egret	*Egretta garzetta*	1990	1	-	EN	L	-	Unlikely
Eastern Great Egret	*Ardea alba*	2001	15	-	VU	L	-	Occasional Visitor/Flyover
Australasian Bittern	*Botaurus poiciloptilus*	1973	2	-	EN	L	VU	Unlikely
Australasian Shoveler	*Anas rhynchotis*	2002	39	-	VU	-	-	Rare Visitor

Common Name	Scientific Name	Last documented record	Total # of records	EPBC Act	DSE (2007)	FFG ACT	National Action Plan	Likely use of study area
Freckled Duck	*Stictonetta naevosa*	1996	7	-	EN	L	-	Rare Visitor/Unlikely
Hardhead	*Aythya australis*	2003	37	-	VU	-	-	Occasional/Rare Visitor
Blue-billed Duck	*Oxyura australis*	1999	13	-	EN	L	-	Rare Visitor/Unlikely
Musk Duck	*Biziura lobata*	2003	36	-	VU	-	-	Rare Visitor/Unlikely
White-bellied Sea-Eagle	*Haliaeetus leucogaster*	1999	2	-	VU	L	-	Vagrant/Flyover
Black Falcon	*Falco subniger*	2000	6	-	VU	-	-	Occasional Visitor/Flyover
Barking Owl	*Ninox connivens*	2002	18	-	EN	L	NT	Occasional Visitor
Powerful Owl	*Ninox strenua*	1972	1	-	VU	L	-	Rare Visitor
Masked Owl	*Tyto novaehollandiae*	1989	1	-	EN	L	NT	Rare Visitor
Hooded Robin	*Melanodryas cucullata*	1999	12	-	NT	L	NT	Rare Visitor
Crested Bellbird	*Oreoica gutturalis*	2003	16	-	NT	L	NT	Rare Visitor
Grey-crowned Babbler	*Pomatostomus temporalis*	1987	2	-	EN	L	NT	Rare Visitor/Unlikely
Speckled Warbler	*Chthonicola sagittata*	2001	56	-	VU	L	NT	Occasional/Rare Visitor
Brown Treecreeper	*Climacteris picumnus*	2001	63	-	NT	-	NT	Occasional/Rare Visitor
Painted Honeyeater	*Grantiella picta*	1990	1	-	VU	L	NT	Unlikely
Diamond Firetail	*Stagonopleura guttata*	2002	64	-	VU	L	NT	Frequent/Occasional Visitor
Brush-tailed Phascogale	*Phascogale tapoatafa*	1989	12	-	VU	L	NT	Unlikely
Common Dunnart	*Sminthopsis murina*	1990	3	-	VU	-	-	Unlikely
Tree Goanna	*Varanus varius*	1968	1	-	VU	-	-	Unlikely
Brown Toadlet	*Pseudophryne bibronii*	1990	6	-	EN	L	DD	Occasional/Rare
^ Amethyst Hairstreak Butterfly	*Jalmenus icilius*	-	-	-	-	L	NT	Unlikely
^ Fiery Jewel Butterfly	*Hypochrysops ignitus ignitus*	-	-	-	-	L	LR	Unlikely
^ Southern Purple Azure Butterfly	*Ogyris genoveva araxes*	-	-	-	-	L	-	Unlikely
^ Yellow Sedge-skipper	*Hesperilla flavescens flavescens*	-	-	-	-	L	-	Unlikely
REGIONAL SIGNIFICANCE								
Brown Quail	*Coturnix ypsilophora*	1990	5	-	NT	-	-	Unlikely
Little Button-quail	*Turnix velox*	1974	1	-	NT	-	-	Unlikely
Pied Cormorant	*Phalacrocorax varius*	2003	4	-	NT	-	-	Unlikely

Common Name	Scientific Name	Last documented record	Total # of records	EPBC Act	DSE (2007)	FFG ACT	National Action Plan	Likely use of study area
Whiskered Tern	*Chlidonias hybridus*	1990	5	-	NT	-	-	Rare Visitor
Latham's Snipe	*Gallinago hardwickii*	1997	12	-	NT	-	-	Rare/Unlikely Visitor
Australian Pratincole	*Stiltia isabella*	1990	1	-	NT	-	-	Unlikely
Glossy Ibis	*Plegadis falcinellus*	1986	2	-	NT	-	-	Rare Visitor
Nankeen Night Heron	*Nycticorax caledonicus*	2000	13	-	NT	-	-	Occasional Visitor
Cape Barren Goose	*Cereopsis novaehollandiae*	1999	4	-	NT	-	-	Rare Visitor
Spotted Harrier	*Circus assimilis*	2001	8	-	NT	-	-	Occasional Visitor
Azure Kingfisher	*Alcedo azurea*	1988	1	-	NT	-	-	Rare/Unlikely Visitor
Red-backed Kingfisher	*Todiramphus pyrrhopygia*	1986	1	-	NT	-	-	Vagrant/Unlikely Visitor
Black-eared Cuckoo	*Chrysococcyx osculans*	2000	13	-	NT	-	-	Occasional Visitor
Spotted Quail-thrush	*Cinclosoma punctatum*	1989	3	-	NT	-	-	Occasional/Rare Visitor
Black-chinned Honeyeater	*Melithreptus gularis*	2001	8	-	NT	-	-	Occasional/Rare Visitor
Pectoral Sandpiper	*Calidris melanotos*	1990	1	-	NT	-	-	Unlikely
Fat-tailed Dunnart	*Sminthopsis crassicaudata*	1990	8	-	NT	-	-	Rare Visitor
Eastern Bearded Dragon	*Pogona barbata*	1986	1	-	DD	-	-	Unlikely
Cunningham's Skink	*Egernia cunninghami*	2001	24	-	-	-	-	Possible Resident
Little Whip Snake	*Suta flagellum*	2000	26	-	-	-	-	Possible Resident
Common Spadefoot Toad	*Neobatrachus sudelli*	1999	31	-	-	-	-	Likely Resident

Source: DSE Atlas of Victorian Wildlife (AVW 2007); DEWHA Protected Matters Search Tool (http://www.environment.gov.au/erin/ert/epbc/index.html); and Museum of Victoria Butterfly Database (http://flyaqis.mov.vic.gov.au/cgi-bin/texhtml?form=bio_nvicbio)

Appendix 3 - Defining Vegetation Condition

Table A3. *Defining Vegetation Condition.*

Criteria for defining Vegetation Condition
Good condition - Vegetation dominated by a diversity of indigenous species, with defined structures (where appropriate), such as canopy layer, shrub layer, and ground cover, with little or few introduced species present.
Moderate condition - Vegetation dominated by a diversity of indigenous species, but is lacking some structures, such as canopy layer, shrub layer or ground cover, and/or there is a greater level of introduced flora species present.
Poor condition - Vegetation dominated by introduced species, but supports low levels of indigenous species present, in the canopy, shrub layer or ground cover.

Appendix 4 – Habitat Hectare Zones within precinct

Table A4.1. Location of habitat hectare zones to be removed and retained according to land parcel zones within precinct

Parcel #	CGW 1 RT	CGW 1 RM	CGW 2 RT	CGW 2 RM	LS 1 RT	LS 1 RM	LS 2 RT	LS 2 RM	PG RT	PG RM	PGW 1 RT	PGW 1 RM	PGW 2 RT	PGW 2 RM	PSW RT	PSW RM	PW 1 RT	PW 1 RM	PW 2 RT	PW 2 RM	PW 3 RT	PW3 RM	PW4 RT	PW4 RM	PW5 RT	PW5 RM	PW6 RT	PW6 RM	PW7 RT	PW7 RM	PW8 RT	PW8 RM	PW9 RT	PW9 RM
No Parcel Number	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Parcel Number	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Parcel Number	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2963	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2964	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.13	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2965	-	-	-	-	-	-	-	-	0.01	0.00	0.53	-	-	-	0.10	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2967	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2969	-	-	-	-	-	-	-	-	-	-	0.51	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2971	-	-	-	-	-	-	-	-	-	-	0.81	0.55	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2972	-	-	-	-	-	-	-	-	-	-	0.02	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2973	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2994	-	-	-	-	-	-	-	-	-	-	0.63	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3001	-	-	-	-	-	-	-	-	-	-	2.35	0.34	0.13	0.00	-	-	0.03	0.00	2.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3002	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3003	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3004	-	-	-	-	-	-	-	-	-	-	0.16	0.01	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3005	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	1.50	-	-	-	5.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3007	-	-	-	-	-	-	-	-	-	-	-	-	0.01	0.00	-	-	-	-	0.27	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7981	0.09	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8090	0.09	1.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9841	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.65	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10698	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10699	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.55	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10701	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10703	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10704	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10861	0.05	2.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11049	2.64	0.04	-	-	-	-	-	-	0.00	0.01	-	-	-	-	-	-	-	-	1.54	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11050	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11051	-	-	-	-	0.00	0.00	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11052	-	-	-	-	0.01	0.03	-	-	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11054	-	-	-	-	-	-	-	-	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11055	-	-	-	-	-	-	-	-	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Parcel #	CGW 1 RT	CGW 1 RM	CGW 2 RT	CGW 2 RM	LS 1 RT	LS 1 RM	LS 2 RT	LS 2 RM	PG RT	PG RM	PGW 1 RT	PGW 1 RM	PGW 2 RT	PGW 2 RM	PSW RT	PSW RM	PW 1 RT	PW 1 RM	PW 2 RT	PW 2 RM	PW 3 RT	PW3 RM	PW4 RT	PW4 RM	PW5 RT	PW5 RM	PW6 RT	PW6 RM	PW7 RT	PW7 RM	PW8 RT	PW8 RM	PW9 RT	PW9 RM
11056	-	-	-	-	-	-	-	-	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11061	3.20	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11597	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11702	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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11707	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11708	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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11709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11713	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11714	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11716	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11717	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11955	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11956	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11957	-	-	-	-	-	-	-	-	-	-	0.56	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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11959	-	-	-	-	-	-	-	-	-	-	0.26	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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12527	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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12689	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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17958	0.00	0.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18057	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18058	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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20128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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21898	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Parcel #	CGW 1 RT	CGW 1 RM	CGW 2 RT	CGW 2 RM	LS 1 RT	LS 1 RM	LS 2 RT	LS 2 RM	PG RT	PG RM	PGW 1 RT	PGW 1 RM	PGW 2 RT	PGW 2 RM	PSW RT	PSW RM	PW 1 RT	PW 1 RM	PW 2 RT	PW 2 RM	PW 3 RT	PW3 RM	PW4 RT	PW4 RM	PW5 RT	PW5 RM	PW6 RT	PW6 RM	PW7 RT	PW7 RM	PW8 RT	PW8 RM	PW9 RT	PW9 RM
21899	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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21902	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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106127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Parcel #	CGW 1 RT	CGW 1 RM	CGW 2 RT	CGW 2 RM	LS 1 RT	LS 1 RM	LS 2 RT	LS 2 RM	PG RT	PG RM	PGW 1 RT	PGW 1 RM	PGW 2 RT	PGW 2 RM	PSW RT	PSW RM	PW 1 RT	PW 1 RM	PW 2 RT	PW 2 RM	PW 3 RT	PW3 RM	PW4 RT	PW4 RM	PW5 RT	PW5 RM	PW6 RT	PW6 RM	PW7 RT	PW7 RM	PW8 RT	PW8 RM	PW9 RT	PW9 RM
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118380	2.09	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
118585	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
118586	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	1.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.03	-	-	-	-	-	-	-	-	-	-
120093	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120324	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120737	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
123363	-	-	-	-	0.20	0.16	-	3.23	-	-	-	0.24	-	-	-	-	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
123364	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stockland Land																																		
104388	-	-	1.63	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
104389	-	-	0.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
104392	0.01	0.01	2.63	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120092	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.26	0.02
120094	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.93	0.06	0.37	0.00	0.20	-	0.11	0.07	-	-
120097	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	0.68	0.30	0.01	0.09	-	-	-	0.05	-	-	0.18	0.04	0.26	0.11	0.49	0.10	0.10	0.07	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**28.29**	**5.78**	**9.19**	**0.26**	**3.52**	**0.43**	**-**	**3.28**	**7.85**	**0.63**	**8.45**	**2.02**	**1.48**	**0.32**	**6.02**	**0.27**	**5.54**	**0.41**	**9.43**	**0.12**	**0.66**	**0.01**	**5.80**	**0.05**	**9.93**	**0.06**	**0.37**	**0.00**	**0.20**	**-**	**0.11**	**0.07**	**1.26**	**0.02**

Notes: CGW = Creekline Grassy Woodland, PW = Plains Woodland, PGW = Plains Grassy Woodland, PG = Plains Grassland, LS = Lignum Swamp, PSW/LS = Plains Swampy Woodland / Lignum Swamp. RE = Removed, RT = Retained.

Appendix 4 – Large Old Trees in Habitat Hectare Zones within precinct

Table A4.2. Location of Large Old Trees in habitat hectare zones to be removed and retained according to land parcel zones within precinct

Parcel #	CGW1 RT	CGW1 RM	CGW2 RT	CGW2 RM	LS1 RT	LS1 RM	LS2 RT	LS2 RM	PG 1 RT	PG 1 RM	PGW1 RT	PGW1 RM	PGW2 RT	PGW2 RM	PSW RT	PSW RM	PW1 RT	PW1 RM	PW2 RT	PW2 RM	PW3 RT	PW3 RM	PW4 RT	PW4 RM	PW5 RT	PW5 RM	PW6 RT	PW6 RM	PW7 RT	PW7 RM	PW8 RT	PW8 RM	PW9 RT	PW9 RM
No Parcel #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Parcel #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No Parcel #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2963	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2964	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2965	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2967	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2969	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2971	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2972	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2973	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2994	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3001	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3003	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7981	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8090	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9841	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10698	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10699	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10701	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10703	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10704	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10861	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11049	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11051	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11052	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11054	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11055	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11061	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11597	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11702	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11706	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11707	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11708	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11708	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Parcel #	CGW1 RT	CGW1 RM	CGW2 RT	CGW2 RM	LS1 RT	LS1 RM	LS2 RT	LS2 RM	PG 1 RT	PG 1 RM	PGW1 RT	PGW1 RM	PGW2 RT	PGW2 RM	PSW RT	PSW RM	PW1 RT	PW1 RM	PW2 RT	PW2 RM	PW3 RT	PW3 RM	PW4 RT	PW4 RM	PW5 RT	PW5 RM	PW6 RT	PW6 RM	PW7 RT	PW7 RM	PW8 RT	PW8 RM	PW9 RT	PW9 RM
11713	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11714	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11716	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11717	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11955	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11956	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11957	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11958	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11959	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11961	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12527	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12685	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12688	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12689	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17147	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17149	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17958	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18057	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18058	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19544	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19545	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20198	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20314	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-
20315	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20315	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-
20316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21157	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21898	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21899	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21901	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21902	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21903	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21904	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21905	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
102036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
104390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
104391	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
104393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106357	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106359	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Parcel #	CGW1 RT	CGW1 RM	CGW2 RT	CGW2 RM	LS1 RT	LS1 RM	LS2 RT	LS2 RM	PG 1 RT	PG 1 RM	PGW1 RT	PGW1 RM	PGW2 RT	PGW2 RM	PSW RT	PSW RM	PW1 RT	PW1 RM	PW2 RT	PW2 RM	PW3 RT	PW3 RM	PW4 RT	PW4 RM	PW5 RT	PW5 RM	PW6 RT	PW6 RM	PW7 RT	PW7 RM	PW8 RT	PW8 RM	PW9 RT	PW9 RM
106361	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106363	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106382	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106384	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106385	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106386	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106416	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106417	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106637	21	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106638	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111627	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111628	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111652	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111653	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115587	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115588	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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115629	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115633	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115634	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115635	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115636	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115655	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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115663	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115664	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
116280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
116288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
116289	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
118380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
118585	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
118586	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120093	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120324	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120737	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
123363	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
123364	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stockland Land																																		
104388	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
104389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
104392	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120092	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
120094	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	-	-	-	1	-	2	2	-	-
120097	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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TOTAL	**107**	**44**	**19**	**-**	**1**	**-**	**-**	**-**	**1**	**-**	**22**	**9**	**1**	**1**	**8**	**-**	**17**	**1**	**9**	**-**	**-**	**-**	**23**	**-**	**42**	**-**	**-**	**-**	**1**	**-**	**2**	**2**	**2**	**-**

Notes: CGW = Creekline Grassy Woodland, PW = Plains Woodland, PGW = Plains Grassy Woodland, PG = Plains Grassland, LS = Lignum Swamp, PSW/LS = Plains Swampy Woodland / Lignum Swamp. RE = Removed, RT = Retained.

Appendix 5 – Scattered trees within precinct

Table A5.1. Scattered trees to be removed and retained according to land parcel zones within precinct

Parcel #	Tree #	Species	EVC	Size	DBH	Con. Sign.	Removed/Retained
20314	34	Buloke	Plains Woodland	LOT	51	Very High	Removed sub to Net Gain
20315	269	Buloke	Plains Woodland	LOT	40	Very High	Retained & Protected
11055	64	Buloke	Plains Woodland	LOT	56	Very High	Retained & Protected
3004	100	Buloke	Plains Woodland	LOT	54	Very High	Retained & Protected
104389	268	Buloke	Plains Woodland	LOT	40	Very High	Retained & Protected
11055	63	Grey Box	Plains Woodland	LOT	85	High	Removed sub to Net Gain
11056	65	Grey Box	Plains Woodland	LOT	88	High	Retained & Protected
11061	8	Grey Box	Plains Woodland	LOT	94	High	Removed sub to Net Gain
11061	9	Grey Box	Plains Woodland	LOT	89	High	Removed sub to Net Gain
9841	1	Grey Box	Plains Woodland	LOT	70	High	Removed sub to Net Gain
118380	202	Grey Box	Plains Woodland	LOT	75	High	Removed sub to Net Gain
120093	203	Grey Box	Plains Woodland	LOT	78	High	Removed sub to Net Gain
118380	208	Grey Box	Plains Woodland	LOT	98	High	Removed sub to Net Gain
118380	209	Grey Box	Plains Woodland	LOT	75	High	Removed sub to Net Gain
120094	218	Grey Box	Plains Woodland	LOT	95	High	Removed sub to Net Gain
120094	222	Grey Box	Plains Woodland	LOT	100	High	Removed sub to Net Gain
120094	223	Grey Box	Plains Woodland	LOT	95	High	Retained & Protected
120094	225	Grey Box	Plains Woodland	LOT	95	High	Retained & Protected
120094	236	Grey Box	Plains Woodland	LOT	90	High	Retained & Protected
120094	238	Grey Box	Plains Woodland	LOT	90	High	Retained & Protected
104390	239	Grey Box	Plains Woodland	LOT	80	High	Removed sub to Net Gain
104390	240	Grey Box	Plains Woodland	LOT	72	High	Removed sub to Net Gain
104390	241	Grey Box	Plains Woodland	LOT	80	High	Removed sub to Net Gain
104391	243	Grey Box	Plains Woodland	LOT	70	High	Removed sub to Net Gain
104391	245	Grey Box	Plains Woodland	LOT	90	High	Removed sub to Net Gain
104391	247	Grey Box	Plains Woodland	LOT	90	High	Retained & Protected
104391	248	Grey Box	Plains Woodland	LOT	90	High	Retained & Protected
11709	127	Grey Box	Plains Woodland	LOT	72	High	Removed sub to Net Gain
11709	130	Grey Box	Plains Woodland	LOT	85	High	Removed sub to Net Gain
106384	174	Grey Box	Plains Woodland	LOT	82	High	Removed sub to Net Gain
106384	175	Grey Box	Plains Woodland	LOT	72	High	Removed sub to Net Gain
106384	178	Grey Box	Plains Woodland	LOT	94	High	Removed sub to Net Gain
20314	270	Grey Box	Plains Woodland	LOT	83	High	Retained & Protected
120094	271	Grey Box	Plains Woodland	LOT	95	High	Retained & Protected
120094	272	Grey Box	Plains Woodland	LOT	73	High	Removed sub to Net Gain
20198	13	Grey Box	Plains Woodland	LOT	83	High	Retained & Protected
17149	18	Grey Box	Plains Woodland	LOT	70	High	Retained & Protected
20314	41	Grey Box	Plains Woodland	LOT	91	High	Removed sub to Net Gain
20315	45	Grey Box	Plains Woodland	LOT	72	High	Retained & Protected
20315	46	Grey Box	Plains Woodland	LOT	73	High	Retained & Protected
20315	47	Grey Box	Plains Woodland	LOT	75	High	Retained & Protected
20315	48	Grey Box	Plains Woodland	LOT	84	High	Retained & Protected
20315	51	Grey Box	Plains Woodland	LOT	93	High	Retained & Protected
20315	52	Grey Box	Plains Woodland	LOT	95	High	Retained & Protected

Parcel #	Tree #	Species	EVC	Size	DBH	Con. Sign.	Removed/Retained
20315	54	Grey Box	Plains Woodland	LOT	84	High	Retained & Protected
118380	212	Grey Box	Plains Woodland	LOT	82	High	Retained & Protected
118380	213	Grey Box	Plains Woodland	LOT	70	High	Retained & Protected
120094	219	Grey Box	Plains Woodland	LOT	85	High	Retained & Protected
120094	220	Grey Box	Plains Woodland	LOT	100	High	Retained & Protected
120094	226	Grey Box	Plains Woodland	LOT	102	High	Retained & Protected
120094	227	Grey Box	Plains Woodland	LOT	94	High	Retained & Protected
120094	228	Grey Box	Plains Woodland	LOT	100	High	Retained & Protected
104390	230	Grey Box	Plains Woodland	LOT	100	High	Retained & Protected
104390	231	Grey Box	Plains Woodland	LOT	90	High	Retained & Protected
11708	238	Grey Box	Plains Woodland	LOT	90	High	Removed sub to Net Gain
19544	101	River Red Gum	Plains Grassy Woodland	LOT	100	High	Removed sub to Net Gain
115664	105	River Red Gum	Plains Grassy Woodland	LOT	85	High	Removed sub to Net Gain
12688	111	River Red Gum	Plains Grassy Woodland	LOT	86	High	Removed sub to Net Gain
116288	112	River Red Gum	Plains Grassy Woodland	LOT	96	High	Removed sub to Net Gain
20314	37	River Red Gum	Plains Grassy Woodland	LOT	102	High	Removed sub to Net Gain
3004	96	River Red Gum	Plains Grassy Woodland	LOT	85	High	Removed sub to Net Gain
3004	93	River Red Gum	Plains Grassy Woodland	LOT	101	High	Removed sub to Net Gain
2971	114	River Red Gum	Plains Grassy Woodland	LOT	86	High	Removed sub to Net Gain
2971	115	River Red Gum	Plains Grassy Woodland	LOT	94	High	Removed sub to Net Gain
3001	92	River Red Gum	Plains Grassy Woodland	LOT	105	High	Removed sub to Net Gain
3001	91	River Red Gum	Plains Grassy Woodland	LOT	80	High	Removed sub to Net Gain
10704	86	River Red Gum	Plains Grassy Woodland	LOT	104	High	Retained & Protected
115634	83	River Red Gum	Plains Grassy Woodland	LOT	85	High	Retained & Protected
10699	82	River Red Gum	Plains Grassy Woodland	LOT	99	High	Removed sub to Net Gain
104389	198	River Red Gum	Plains Grassy Woodland	LOT	100	High	Removed sub to Net Gain
106363	120	River Red Gum	Plains Grassy Woodland	LOT	103	High	Removed sub to Net Gain
2964	102	River Red Gum	Plains Grassy Woodland	LOT	104	High	Removed sub to Net Gain
17147	17	River Red Gum	Plains Grassy Woodland	LOT	110	High	Retained & Protected
106363	72	River Red Gum	Plains Grassy Woodland	LOT	80	High	Retained & Protected
106363	71	River Red Gum	Plains Grassy Woodland	LOT	101	High	Retained & Protected
104392	253	River Red Gum	Creekline Grassy Woodl	LOT	95	High	Retained & Protected
104392	257	River Red Gum	Creekline Grassy Woodl	LOT	100	High	Retained & Protected
20314	39	Yellow Box	Plains Woodland	LOT	89	High	Removed sub to Net Gain
120094	221	Yellow Box	Plains Woodland	LOT	82	High	Removed sub to Net Gain
104391	250	Blue Box	Plains Woodland	MOT	67	High	Retained & Protected
115635	75	Buloke	Plains Woodland	MOT	35	Very High	Retained & Protected

Parcel #	Tree #	Species	EVC	Size	DBH	Con. Sign.	Removed/Retained
106416	76	Buloke	Plains Woodland	MOT	35	Very High	Retained & Protected
Roadside	89	Buloke	Plains Woodland	MOT	32	Very High	Retained & Protected
17147	27	Grey Box	Plains Woodland	MOT	69	High	Removed sub to Net Gain
20197	29	Grey Box	Plains Woodland	MOT	66	High	Removed sub to Net Gain
20314	44	Grey Box	Plains Woodland	MOT	61	High	Removed sub to Net Gain
3004	99	Grey Box	Plains Woodland	MOT	57	High	Removed sub to Net Gain
20316	31	Grey Box	Plains Woodland	MOT	67	High	Removed sub to Net Gain
104388	199	Grey Box	Plains Woodland	MOT	57	High	Removed sub to Net Gain
120093	205	Grey Box	Plains Woodland	MOT	63	High	Removed sub to Net Gain
118380	206	Grey Box	Plains Woodland	MOT	65	High	Removed sub to Net Gain
118380	207	Grey Box	Plains Woodland	MOT	60	High	Removed sub to Net Gain
11714	267	Grey Box	Plains Woodland	MOT	61	High	Removed sub to Net Gain
11709	128	Grey Box	Plains Woodland	MOT	65	High	Removed sub to Net Gain
106638	140	Grey Box	Plains Woodland	MOT	64	High	Removed sub to Net Gain
123364	156	Grey Box	Plains Woodland	MOT	60	High	Removed sub to Net Gain
11056	66	Grey Box	Plains Woodland	MOT	66	High	Retained & Protected
20198	12	Grey Box	Plains Woodland	MOT	62	High	Retained & Protected
17147	14	Grey Box	Plains Woodland	MOT	60	High	Retained & Protected
17147	15	Grey Box	Plains Woodland	MOT	69	High	Retained & Protected
17147	16	Grey Box	Plains Woodland	MOT	54	High	Retained & Protected
118380	211	Grey Box	Plains Woodland	MOT	65	High	Retained & Protected
118380	214	Grey Box	Plains Woodland	MOT	N/A	High	Retained & Protected
120093	215	Grey Box	Plains Woodland	MOT	59	High	Retained & Protected
120093	217	Grey Box	Plains Woodland	MOT	52	High	Retained & Protected
106638	151	Grey Box	Plains Woodland	MOT	59	High	Retained & Protected
106385	165	Grey Box	Plains Woodland	MOT	63	High	Removed sub to Net Gain
120094	273	Grey Box	Plains Woodland	MOT	55	High	Removed sub to Net Gain
120094	274	Grey Box	Plains Woodland	MOT	58	High	Removed sub to Net Gain
120094	275	Grey Box	Plains Woodland	MOT	67	High	Retained & Protected
120094	276	Grey Box	Plains Woodland	MOT	68	High	Retained & Protected
12689	103	River Red Gum	Plains Grassy Woodland	MOT	76	High	Removed sub to Net Gain
115635	80	River Red Gum	Plains Grassy Woodland	MOT	79	High	Removed sub to Net Gain
3004	98	River Red Gum	Plains Grassy Woodland	MOT	74	High	Removed sub to Net Gain
3004	97	River Red Gum	Plains Grassy Woodland	MOT	71	High	Removed sub to Net Gain
3002	95	River Red Gum	Plains Grassy Woodland	MOT	75	High	Removed sub to Net Gain
118586	117	River Red Gum	Plains Grassy Woodland	MOT	75	High	Removed sub to Net Gain
11959	116	River Red Gum	Plains Grassy Woodland	MOT	62	High	Removed sub to Net Gain
10699	81	River Red Gum	Plains Grassy Woodland	MOT	79	High	Removed sub to Net Gain
106363	73	River Red Gum	Plains Grassy Woodland	MOT	72	High	Retained & Protected
2994	70	River Red Gum	Plains Grassy Woodland	MOT	77	High	Removed sub to Net Gain
11961	113	River Red Gum	Plains Grassy Woodland	MOT	65	High	Removed sub to Net Gain
106361	126	River Red Gum	Plains Grassy Woodland	MOT	60	High	Removed sub to Net Gain

Parcel #	Tree #	Species	EVC	Size	DBH	Con. Sign.	Removed/Retained
123363	164	River Red Gum	Plains Grassy Woodland	MOT	70	High	Removed sub to Net Gain
123363	193	River Red Gum	Plains Grassy Woodland	MOT	77	High	Removed sub to Net Gain
17149	19	River Red Gum	Plains Grassy Woodland	MOT	64	High	Retained & Protected
115634	85	River Red Gum	Plains Grassy Woodland	MOT	77	High	Retained & Protected
115634	84	River Red Gum	Plains Grassy Woodland	MOT	70	High	Retained & Protected
104392	262	River Red Gum	Creekline Grassy Woodl	MOT	65	High	Retained & Protected
104392	263	River Red Gum	Creekline Grassy Woodl	MOT	70	High	Retained & Protected
11706	182	River Red Gum	Plains Grassy Woodland	MOT	78	High	Retained & Protected
20316	23	Yellow Box	Plains Woodland	MOT	57	High	Removed sub to Net Gain
20316	32	Yellow Box	Plains Woodland	MOT	69	High	Removed sub to Net Gain
20314	33	Yellow Box	Plains Woodland	MOT	62	High	Removed sub to Net Gain
20314	36	Yellow Box	Plains Woodland	MOT	60	High	Removed sub to Net Gain
20314	38	Yellow Box	Plains Woodland	MOT	54	High	Removed sub to Net Gain
20314	43	Yellow Box	Plains Woodland	MOT	62	High	Removed sub to Net Gain
20315	49	Yellow Box	Plains Woodland	MOT	61	High	Retained & Protected
20315	50	Yellow Box	Plains Woodland	MOT	55	High	Retained & Protected
104391	251	Blue Box	Plains Woodland	OT	43	Low	Retained & Protected
106363	125	Buloke	Plains Woodland	OT	3	High	Removed sub to Net Gain
115629	88	Buloke	Plains Woodland	OT	28	High	Retained & Protected
11050	56	Grey Box	Plains Woodland	OT	28	Low	Removed sub to Net Gain
20197	30	Grey Box	Plains Woodland	OT	40	Low	Removed sub to Net Gain
17147	22	Grey Box	Plains Woodland	OT	49	Low	Removed sub to Net Gain
17147	25	Grey Box	Plains Woodland	OT	48	Low	Removed sub to Net Gain
17147	26	Grey Box	Plains Woodland	OT	50	Low	Removed sub to Net Gain
Roadside	2	Grey Box	Plains Woodland	OT	33	Low	Removed sub to Net Gain
Roadside	3	Grey Box	Plains Woodland	OT	15	Low	Removed sub to Net Gain
11707	68	Grey Box	Plains Woodland	OT	44	Low	Removed sub to Net Gain
106384	57	Grey Box	Plains Woodland	OT	24	Low	Removed sub to Net Gain
106384	59	Grey Box	Plains Woodland	OT	35	Low	Removed sub to Net Gain
106384	60	Grey Box	Plains Woodland	OT	8	Low	Removed sub to Net Gain
120093	204	Grey Box	Plains Woodland	OT	45	Low	Removed sub to Net Gain
118380	210	Grey Box	Plains Woodland	OT	39	Low	Removed sub to Net Gain
104391	252	Grey Box	Plains Woodland	OT	30	Low	Retained & Protected
11709	129	Grey Box	Plains Woodland	OT	49	Low	Removed sub to Net Gain
21155	131	Grey Box	Plains Woodland	OT	19	Low	Removed sub to Net Gain
21155	133	Grey Box	Plains Woodland	OT	47	Low	Removed sub to Net Gain
21155	134	Grey Box	Plains Woodland	OT	6	Low	Removed sub to Net Gain
120737	135	Grey Box	Plains Woodland	OT	50	Low	Removed sub to Net Gain
120325	136	Grey Box	Plains Woodland	OT	50	Low	Removed sub to Net Gain
120325	137	Grey Box	Plains Woodland	OT	42	Low	Removed sub to Net Gain
106638	139	Grey Box	Plains Woodland	OT	15	Low	Removed sub to Net Gain
106638	142	Grey Box	Plains Woodland	OT	37	Low	Removed sub to Net Gain
106638	143	Grey Box	Plains Woodland	OT	40	Low	Removed sub to Net Gain
106638	147	Grey Box	Plains Woodland	OT	14	Low	Removed sub to Net Gain
123363	153	Grey Box	Plains Woodland	OT	3	Low	Removed sub to Net Gain

Parcel #	Tree #	Species	EVC	Size	DBH	Con. Sign.	Removed/Retained
123363	154	Grey Box	Plains Woodland	OT	3	Low	Removed sub to Net Gain
123363	155	Grey Box	Plains Woodland	OT	44	Low	Removed sub to Net Gain
21902	166	Grey Box	Plains Woodland	OT	50	Low	Removed sub to Net Gain
21902	167	Grey Box	Plains Woodland	OT	4	Low	Removed sub to Net Gain
21902	168	Grey Box	Plains Woodland	OT	8	Low	Removed sub to Net Gain
21902	169	Grey Box	Plains Woodland	OT	1	Low	Removed sub to Net Gain
21902	170	Grey Box	Plains Woodland	OT	4	Low	Removed sub to Net Gain
21902	171	Grey Box	Plains Woodland	OT	2	Low	Removed sub to Net Gain
21905	173	Grey Box	Plains Woodland	OT	47	Low	Removed sub to Net Gain
106384	176	Grey Box	Plains Woodland	OT	21	Low	Removed sub to Net Gain
106384	177	Grey Box	Plains Woodland	OT	20	Low	Removed sub to Net Gain
106384	179	Grey Box	Plains Woodland	OT	6	Low	Removed sub to Net Gain
11706	184	Grey Box	Plains Woodland	OT	33	Low	Removed sub to Net Gain
Roadside	191	Grey Box	Plains Woodland	OT	40	Low	Removed sub to Net Gain
Roadside	192	Grey Box	Plains Woodland	OT	39	Low	Removed sub to Net Gain
21155	132	Grey Box	Plains Woodland	OT	6	Low	Removed sub to Net Gain
106638	141	Grey Box	Plains Woodland	OT	50	Low	Removed sub to Net Gain
11056	67	Grey Box	Plains Woodland	OT	18	Low	Retained & Protected
11061	5	Grey Box	Plains Woodland	OT	40	Low	Retained & Protected
20315	21	Grey Box	Plains Woodland	OT	50	Low	Retained & Protected
11708	58	Grey Box	Plains Woodland	OT	15	Low	Removed sub to Net Gain
11708	61	Grey Box	Plains Woodland	OT	3	Low	Removed sub to Net Gain
120093	216	Grey Box	Plains Woodland	OT	45	Low	Retained & Protected
123363	138	Grey Box	Plains Woodland	OT	44	Low	Retained & Protected
106638	144	Grey Box	Plains Woodland	OT	14	Low	Retained & Protected
106638	145	Grey Box	Plains Woodland	OT	12	Low	Retained & Protected
106638	146	Grey Box	Plains Woodland	OT	7	Low	Retained & Protected
106638	148	Grey Box	Plains Woodland	OT	7	Low	Retained & Protected
106638	149	Grey Box	Plains Woodland	OT	8	Low	Retained & Protected
106638	150	Grey Box	Plains Woodland	OT	34	Low	Retained & Protected
3002	94	River Red Gum	Plains Grassy Woodland	OT	41	Low	Removed sub to Net Gain
2994	69	River Red Gum	Plains Grassy Woodland	OT	25	Low	Removed sub to Net Gain
Roadside	258	River Red Gum	Creekline Grassy Woodl	OT	28	Low	Retained & Protected
Roadside	259	River Red Gum	Creekline Grassy Woodl	OT	9	Low	Retained & Protected
Roadside	265	River Red Gum	Plains Grassy Woodland	OT	33	Low	Retained & Protected
106363	121	River Red Gum	Plains Grassy Woodland	OT	7	Low	Removed sub to Net Gain
106363	122	River Red Gum	Plains Grassy Woodland	OT	7	Low	Removed sub to Net Gain
106363	123	River Red Gum	Plains Grassy Woodland	OT	10	Low	Removed sub to Net Gain
106363	124	River Red Gum	Plains Grassy Woodland	OT	7	Low	Removed sub to Net Gain
123363	158	River Red Gum	Plains Grassy Woodland	OT	34	Low	Removed sub to Net Gain
123363	159	River Red Gum	Plains Grassy Woodland	OT	2	Low	Removed sub to Net Gain
123363	160	River Red Gum	Plains Grassy Woodland	OT	2	Low	Removed sub to Net Gain

Parcel #	Tree #	Species	EVC	Size	DBH	Con. Sign.	Removed/Retained
123363	163	River Red Gum	Plains Grassy Woodland	OT	3	Low	Removed sub to Net Gain
21902	172	River Red Gum	Plains Grassy Woodland	OT	1	Low	Removed sub to Net Gain
123363	194	River Red Gum	Plains Grassy Woodland	OT	4	Low	Removed sub to Net Gain
Roadside	266	River Red Gum	Plains Grassy Woodland	OT	6	Low	Removed sub to Net Gain
106417	107	River Red Gum	Plains Grassy Woodland	OT	20	Low	Removed sub to Net Gain
106417	109	River Red Gum	Plains Grassy Woodland	OT	10	Low	Removed sub to Net Gain
106417	110	River Red Gum	Plains Grassy Woodland	OT	25	Low	Removed sub to Net Gain
106417	104	River Red Gum	Plains Grassy Woodland	OT	10	Low	Removed sub to Net Gain
106417	106	River Red Gum	Plains Grassy Woodland	OT	10	Low	Removed sub to Net Gain
106363	77	River Red Gum	Plains Grassy Woodland	OT	5	Low	Retained & Protected
106363	78	River Red Gum	Plains Grassy Woodland	OT	5	Low	Retained & Protected
106363	79	River Red Gum	Plains Grassy Woodland	OT	5	Low	Retained & Protected
11708	195	River Red Gum	Plains Grassy Woodland	OT	6	Low	Removed sub to Net Gain
10704	87	River Red Gum	Plains Grassy Woodland	OT	50	Low	Removed sub to Net Gain
104392	254	River Red Gum	Creekline Grassy Woodl	OT	20	Low	Retained & Protected
104392	260	River Red Gum	Creekline Grassy Woodl	OT	13	Low	Retained & Protected
104392	261	River Red Gum	Creekline Grassy Woodl	OT	36	Low	Retained & Protected
106637	181	River Red Gum	Plains Grassy Woodland	OT	34	Low	Removed sub to Net Gain
11706	185	River Red Gum	Plains Grassy Woodland	OT	8	Low	Retained & Protected
11706	186	River Red Gum	Plains Grassy Woodland	OT	10	Low	Retained & Protected
11706	187	River Red Gum	Plains Grassy Woodland	OT	14	Low	Retained & Protected
11706	188	River Red Gum	Plains Grassy Woodland	OT	43	Low	Retained & Protected
11706	189	River Red Gum	Plains Grassy Woodland	OT	32	Low	Retained & Protected
11706	190	River Red Gum	Plains Grassy Woodland	OT	52	Low	Retained & Protected
106417	108	River Red Gum	Plains Grassy Woodland	OT	35	Low	Removed sub to Net Gain
20314	40	Yellow Box	Plains Woodland	OT	45	Low	Removed sub to Net Gain
20314	42	Yellow Box	Plains Woodland	OT	46	Low	Removed sub to Net Gain
11050	55	Buloke	Plains Woodland	VLOT	70	Very High	Removed sub to Net Gain
20314	35	Buloke	Plains Woodland	VLOT	70	Very High	Removed sub to Net Gain
123364	157	Buloke	Plains Woodland	VLOT	65	Very High	Retained & Protected
106363	74	Buloke	Plains Woodland	VLOT	98	Very High	Retained & Protected
20197	24	Grey Box	Plains Woodland	VLOT	151	High	Removed sub to Net Gain
Roadside	4	Grey Box	Plains Woodland	VLOT	121	High	Removed sub to Net Gain
11061	7	Grey Box	Plains Woodland	VLOT	116	High	Retained & Protected
104388	200	Grey Box	Plains Woodland	VLOT	110	High	Removed sub to Net Gain

Parcel #	Tree #	Species	EVC	Size	DBH	Con. Sign.	Removed/Retained
120094	224	Grey Box	Plains Woodland	VLOT	115	High	Retained & Protected
120094	235	Grey Box	Plains Woodland	VLOT	150	High	Retained & Protected
120094	237	Grey Box	Plains Woodland	VLOT	125	High	Retained & Protected
104391	244	Grey Box	Plains Woodland	VLOT	110	High	Removed sub to Net Gain
120094	246	Grey Box	Plains Woodland	VLOT	150	High	Removed sub to Net Gain
104391	249	Grey Box	Plains Woodland	VLOT	130	High	Retained & Protected
123363	152	Grey Box	Plains Woodland	VLOT	105	High	Removed sub to Net Gain
123364	180	Grey Box	Plains Woodland	VLOT	116	High	Removed sub to Net Gain
11706	183	Grey Box	Plains Woodland	VLOT	111	High	Removed sub to Net Gain
20198	11	Grey Box	Plains Woodland	VLOT	111	High	Retained & Protected
11061	6	Grey Box	Plains Woodland	VLOT	116	High	Retained & Protected
11061	10	Grey Box	Plains Woodland	VLOT	111	High	Retained & Protected
17147	28	Grey Box	Plains Woodland	VLOT	125	High	Retained & Protected
20315	53	Grey Box	Plains Woodland	VLOT	107	High	Retained & Protected
104388	201	Grey Box	Plains Woodland	VLOT	100	High	Retained & Protected
104390	229	Grey Box	Plains Woodland	VLOT	135	High	Retained & Protected
104390	232	Grey Box	Plains Woodland	VLOT	130	High	Retained & Protected
104390	233	Grey Box	Plains Woodland	VLOT	115	High	Retained & Protected
120094	277	Grey Box	Plains Woodland	VLOT	110	High	Retained & Protected
118586	118	River Red Gum	Plains Grassy Woodland	VLOT	122	High	Removed sub to Net Gain
118586	119	River Red Gum	Plains Grassy Woodland	VLOT	161	High	Removed sub to Net Gain
3001	90	River Red Gum	Plains Grassy Woodland	VLOT	135	High	Removed sub to Net Gain
104389	197	River Red Gum	Plains Grassy Woodland	VLOT	120	High	Removed sub to Net Gain
104391	255	River Red Gum	Creekline Grassy Woodl	VLOT	140	High	Removed sub to Net Gain
Roadside	264	River Red Gum	Plains Grassy Woodland	VLOT	135	High	Retained & Protected
123363	161	River Red Gum	Plains Grassy Woodland	VLOT	163	High	Removed sub to Net Gain
17149	20	River Red Gum	Plains Grassy Woodland	VLOT	125	High	Retained & Protected
104392	256	River Red Gum	Creekline Grassy Woodl	VLOT	160	High	Retained & Protected
123363	162	River Red Gum	Plains Grassy Woodland	VLOT	127	High	Removed sub to Net Gain
104390	234	Yellow Box	Plains Woodland	VLOT	120	High	Removed sub to Net Gain
104391	242	Yellow Box	Plains Woodland	VLOT	110	High	Removed sub to Net Gain

Notes: DBH = Diameter at Breast Height, VLOT = Very Large Old Tree, LOT = Large Old Tree, MOT = Medium Old Tree, OT = Other (small) tree #There are multiple trees with the same tree number in some instances as some trees within close proximity to each other have been recorded using the one GPS waypoint. Tree sizes based on Plains Woodland, Plains Grassy Woodland and Creekline Grassy Woodland EVC Large Old Tree benchmark (DSE), i.e. Plains Woodland – 70cm DBH for eucalypts and 40cm DBH for Buloke, Plains Grassy Woodland and Creekline Grassy Woodland – 80cm DBH for River Red-gum.

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