705-765 Princes Highway, 785-805 Princes Highway and 610 Rennie Street, Lara

Vegetation Assessment

A report to
Lara Farms Pty Ltd

Prepared by
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Contents

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1 INTRODUCTION

1.1 Project Background

Land in Lara Victoria are proposed to be rezoned for industrial and residential use (Amendment C444/C453). The sites are comprised of 705-765 Princes Highway, 785-805 Princes Highway and 610 Rennie Street.

This report was commissioned by Lara Farms Pty Ltd to assess the quantity and significance of any native vegetation that might be present in the subject site.

Under Clause 52.17 of the Planning Scheme, the State has gazetted the Native Vegetation Removal Regulations. The Regulations introduce a 'risk-based approach to assessing applications to remove native vegetation' (DEECA website i). Refer to Section 4.2 for further discussion.

1.2 Objectives

The objectives of this investigation are to:

- Describe the flora values of the land.
- Evaluate the conservation significance for flora of the land.
- Assess any potential impacts of the proposed rezoning.
- Assess the implications of relevant government policy and legislation (Commonwealth EPBC Act, State Clause 52.17, State Flora and Fauna Guarantee Act).

1.3 Study Area

The study area is comprised of approximately 115 hectares for the properties at 705-765 Princes Highway, 785-805 Princes Highway and 610 Rennie Street. The adjacent areas of Rennie Street roadside reserve (west verge), Canterbury Road East roadside reserve (south verge) and the proposed drainage easement (northern drainage outfall) to Hovells Creek are included in the study area.

The study area is located within the City of Greater Geelong. The site is within the Victorian Volcanic Plains bioregion and is located within the Corangamite Catchment Management Authority region (DEECA website iii). The land is zoned Farming Zone (FZ) (DEECA website iv).

The study area is bound by the Geelong-Melbourne railway reserve to the west, Princes Highway to the south and east and Canterbury Road East and Hovells Creek to the north.

The site is mostly comprised of cropping land, fallow land, existing dwellings and gardens with non-local native and exotic trees and shrubs, planted for mainly aesthetic purposes. The vegetation is substantially degraded and exotic.

The area is relatively flat. A natural drainage line flows from west to east, into Hovells Creek, in the mid sector of the study area.

The location of the study area is shown in Figure 1. Refer to Plates 1-9 for photographs of the vegetation existing conditions.

Figure 1. Location of the study area defined by red outline.

1.4 Proposed Development

The proposal is to rezone the land for industrial and residential use (Amendment C444/C453).

2 METHODS

2.1 Taxonomy

Scientific names for plants follow the Vicflora (RBG website i). Common names for plants follow the Flora of Victoria Vol's 2-4 (Walsh and Entwisle 1994-1999).

2.2 Literature and Database Review

Relevant literature and databases, including data from the NVIM tool (DEECA website i), Victorian Biodiversity Atlas (DEECA website ii) and Commonwealth EPBC Act website were reviewed.

2.3 Field Survey

The site was inspected on foot on the 18th of February and 4th of April 2022. The entire site was traversed. Additional survey of the adjacent roadside reserves and the proposed drainage easement area was undertaken on the 16th of October 2024. Records were taken of all indigenous vascular plant species and naturalised exotic vascular plant species (excluding gardens). Native vegetation communities were mapped.

2.4 Limitations

The assessment was conducted during summer, autumn, and (in part) spring, times of year that are suitable for the detection of the majority of plant species likely to be present given the overwhelmingly degraded nature of the majority of the study area. Plant growth was good following significant rainfall over the 2022 spring and summer periods.

Due to the relatively degraded condition of the study area vegetation, the site inspection is considered sufficient to assess the flora values of the site. The survey includes only vascular flora. Fauna surveys were not undertaken.

There are not considered to be any significant limitations to the findings of this study.

Mark Trengove is a suitably qualified and experienced ecologist and is a DEECA accredited VQA assessor.

2.5 Defining Significance

A number of criteria are applied in order to assess the significance of flora species and vegetation communities. The definition of the criteria is detailed in Appendix 1.

2.6 Defining and Assessing Vegetation

Native vegetation in Victoria has been defined by DEECA as belonging to two categories. These are:

Patch native vegetation

Patch native vegetation is either:

- any area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native.
- any area with three or more native canopy trees where the canopy foliage cover is overlapping.
- Any area of 'current wetland' as mapped by DEECA.

Scattered Tree native vegetation

Scattered tree native vegetation is:

- a native canopy tree that does not form part of a patch.

Habitat Hectares

Habitat hectares (Vegetation Quality Assessment v1.3) is a site-based measure that combines extent and condition of native vegetation. The current condition of native vegetation is assessed against a benchmark for its Ecological Vegetation Class (EVC). EVCs are classifications of native vegetation types. The benchmark for an EVC describes the attributes of the vegetation type in its mature natural state, which reflects the pre-settlement circumstances. The condition score of native vegetation at a site can be determined through undertaking a habitat hectare assessment. The habitat hectare value of an area of native vegetation is calculated by multiplying the current condition of the vegetation (condition score) by the extent of native vegetation. (DEECA website i).

3 RESULTS

3.1 Ecological Vegetation Class

Ecological Vegetation Classes (EVCs) are the primary level of classification of vegetation communities within Victoria. An EVC contains one or more plant (floristic) community and represents a grouping of vegetation communities with broadly similar ecological attributes. Classification of EVCs in this report follows Oates and Taranto (2001).

The pre-1750 EVC mapping of the study area undertaken by DEECA (DEECA Website iii) indicates that the study area was comprised of EVC 132 Plains Grassland and EVC 68 Creekline Grassy Woodland.

The current study records the following EVCs:

- One area of degraded non-patch EVC 132 Plains Grassland native vegetation (Slender Wallaby-grass).
- Two areas of patch EVC 68 Creekline Grassy Woodland native vegetation (Common Reed).

EVC 132 Plains Grassland and EVC 68 Creekline Grassy Woodland both have a bioregional conservation significance of 'Endangered' in the Victorian Volcanic Plain bioregion.

Endangered is defined as an EVC where less than 10% of the pre-european extent remains within the bioregion (DEECA website v).

Refer to Figure 2 for DEECA EVC mapping.

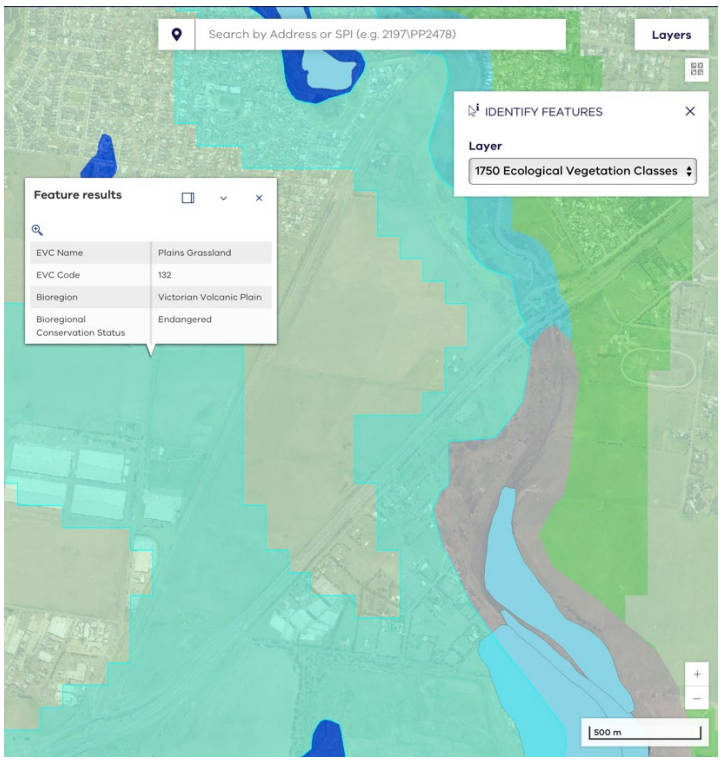

Figure 2. Distribution of EVC pre-1750. Light green is EVC 132 Plains Grassland, blue is EVC 68 Creekline Grassy Woodland (DEECA Website iii).

3.2 Flora

A total of six native vascular plant species were recorded from the study area. Refer to Table 1 for a list of naturalised native and exotic vascular plant species recorded for the study area from this assessment.

3.3 Vegetation Condition

The vegetation of the study area is described as follows:

- Degraded vegetation dominated by exotic crops, pasture grasses and weeds such as Rye Grass *Lolium* spp., Carpet Weed *Galenia pubescens*, Capeweed *Arctotheca calendula*, Ribwort *Plantago lanceolata*, Onion Weed *Asphodelus fistulosus,* Boxthorn *Lycium ferrocissimum,* Serrated Tussock *Nassella trichitoma)* and Onion-grass *Romulea* spp. This vegetation dominates the majority of the study area.
- An area of native vegetation at 705-765 Princes Highway, consisting of native Slender Wallaby-grass *Rytidosperma racemosum* that occur at less than 10% cover value amongst otherwise degraded exotic vegetation (Plate 4, Figure 3a).
- Degraded vegetation dominated by pasture grasses and weeds such as Rye Grass *Lolium sp.*, Carpet Weed *Galenia pubescens*, Capeweed *Arctotheca calendula*, Ribwort *Plantago lanceolata*, Onion Weed *Asphodelus fistulosus,* Boxthorn *Lycium ferrocissimum),* Chilean Needle-grass *Nassella neesiana,* Serrated Tussock *Nassella trichitoma)* and Onion-grass *Romulea sp* on the adjacent areas of Rennie Street and Canterbury Road East roadside reserves.
- Areas of native vegetation, dominated by Common Reed and Australian Salt-grass were recorded within the proposed drainage easement and the adjacent Hovells Creek Reserve. This vegetation occurs on the Hovells Creek streamside bank and within the existing drainage easement (Figure 3b, Plates 7 and 8).
- Planted non-local native and exotic trees and shrubs occur in residential gardens and surrounds. Several planted trees exist, including rows of Sheoke *Casuarina glauca*, Giant Honey-myrtle *Melaleuca armillaris*, Sugar Gum *Eucalyptus cladocalyx* and Peppercorn *Schinus molle*.
- One area of Golden Wattle *Acacia pycnantha* was recorded for the the Geelong-Melbourne railway reserve adjacent to the study area (west of the study area). Otherwise, the Geelong-Melbourne railway reserve within 10 metres of the study area is assessed to be comprised of entirely exotic degraded vegetation.

Refer to Figure 3 for the location of recorded native vegetation.

Refer to Plates 1-9 for photographs of the vegetation existing conditions.

Botanical Name	Common Name	Status
Acacia saligna	Golden Wreath Wattle	Exotic
Arctotheca calendula	Capeweed	Exotic
Asphodelus fistulosus	Onion Weed	Exotic
Bromus sp.	Brome	Exotic
Cenchrus clandestinum	Kikuyu	Exotic
Cynodon dactylon	Couch	Exotic
Dactylis glomerata	Cocksfoot	Exotic
Distichlis distichophylla	**Australian Salt-grass**	**Native Local**
Ehrharta longiflora	Annual Veldt-grass	Exotic
Erodium malacoides	Oval Heron's-bill	Exotic
Festuca sp.	Fescue	Exotic
Foeniculum vulgare	Fennel	Exotic
Galenia pubescens	Carpet Weed	Exotic
Helminthotheca echioides	Ox-tongue	Exotic
Hordeum sp.	Barley Grass	Exotic
Juncus acutus	Spiny Rush	Exotic
Juncus kraussii	**Sea Rush**	**Native Local**
Lagunaria patersonia	Norfolk Island Hibiscus	Exotic
Lolium sp.	Rye Grass	Exotic
Lycium ferrocissimim	Boxthorn	Exotic
Nassella neesiana	Chilean Needle-grass	Exotic
Nassella trichitoma	Serrated Tussock	Exotic
Oxalis pes-caprae	Soursob	Exotic
Pennisetum clandestinum	Kikuyu	Exotic
Phalaris aquatica	Toowoomba Canary-grass	Exotic
Phragmites australis	**Common Reed**	**Native Local**
Physalis hederifolia	Prairie Ground Cherry	Exotic
Plantago coronopus	Buck's-horn Plantain	Exotic
Plantago lanceolata	Ribwort	Exotic
Rapistrum rugosum	Giant Mustard	Exotic
Romulea sp.	Onion-grass	Exotic
Rytidosperma racemosum	**Slender Wallaby-grass**	**Native Local**
Samolus repens	**Creeping Brookweed**	**Native Local**
Schinus molle	Pepper Tree	Exotic
Selliera radicans	**Swamp Selliera**	**Native Local**

Table 1. Naturalised vascular plant species recorded this survey, botanical name, common name and status.

Local- Local conservation significance.

Figure 3a. Location of recorded non-patch native vegetation within study area. The record is the occurrence of Slender Wallaby-grass EVC 132 vegetation recorded at 705-765 Princes Highway. This vegetation is degraded and is not patch native vegetation.

Figure 3b. Location of recorded patch native vegetation within study area. The record is the Common Reed dominated EVC 68 vegetation that occurs in conjunction with Hovells Creek and within an existing drainage easement.

Other than the above recorded native vegetation, no native vegetation was recorded for the study area.

3.4 Significant Flora

No National, State or Regional significant plant species were recorded.

The six recorded native plant species are assessed to be of local conservation significance. Refer to Appendix 1 for the rational for assessing significance.

3.5 Desktop Assessment

3.5.1 Threatened communities

An EPBC Protected Matters Search Tool was undertaken to identify records of matters protected under the Environmental Protection and Biodiversity Conservation Act 1999 that may occur in or within a 5km radius of the subject area. The search identified five threatened ecological communities (four Critically Endangered and one Vulnerable). Two of these communities (Natural Temperate Grassland of the Victorian Volcanic Plain and Grassy Eucalypt Woodland of the Victorian Volcanic Plain) were recorded for the study area. One of these communities (Western (Basalt) Plains Grasslands Community) is listed under the *Flora and Fauna Guarantee Act 1988.*

The search also identified 15 listed threatened flora species that are known to or are likely to occur within a 5km radius of the assessment area. There are eight species considered to be vulnerable, six that are endangered and one that is critically endangered. Eleven of these species are listed under the *Flora and Fauna Guarantee Act 1988.*

Refer to Tables 2 and 3 for the results of the desktop assessment.

Ecological Community	Threatened Category	Presence	Location	FFG listed	Implications
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Yes	Hovells Creek/Drainage easement	No	No
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	No		No	No
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	No		No	No
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Yes	705-765 Princes Highway	Yes	No
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	No		No	No

Table 2. Listed Ecological communities, threatened category, presence recorded this survey, location of recorded community, listing under the State FFG Act and implications for the proposal.

EPBC Act Implications

The occurrence of the Slender Wallaby-grass vegetation is small and degraded (less than 10% cover value) and does not meet the ecological community Natural Temperate Grassland of the Victorian Volcanic Plain threshold values. Consequently, the removal of this vegetation is assessed to not be a controlled action and there would be no referral implications for this community.

The occurrence of the Common Reed dominated is small and relatively degraded and does not meet the ecological community Grassy Eucalypt Woodland of the Victorian Volcanic Plain threshold values. Consequently, the removal of this vegetation is assessed to not be a controlled action and there would be no referral implications for this community.

3.5.2 Threatened plant species

PLANTS					
Botanical Name	**Common Name**	**Threatened Category**	**Presence**	**Location suitability**	**FFG listed**
Pimelea spinescens subsp. spinescens	Plains Rice-flower	Critically Endangered	No	No. Habitat too degraded	Y
Lepidium hyssopifolium	Basalt Pepper-cress	Endangered	No	No. Habitat too degraded	N
Lachnagrostis adamsonii	Adamson's Blown-grass	Endangered	No	No. Habitat too degraded	Y
Rutidosis leptorhynchoides	Button Wrinklewort	Endangered	No	No. Habitat too degraded	Y
Leucochrysum albicans subsp. tricolor	Hoary Sunray	Endangered	No	No. Habitat too degraded	Y
Diuris basaltica	Small Golden Moths Orchid	Endangered	No	No. Habitat too degraded	Y
Dianella amoena	Matted Flax-lily	Endangered	No	No. Habitat too degraded	Y
Amphibromus fluitans	River Swamp Wallaby-grass	Vulnerable	No	No. Habitat too degraded	N
Pterostylis chlorogramma	Green-striped Greenhood	Vulnerable	No	No. Habitat too degraded	N
Glycine latrobeana	Clover Glycine	Vulnerable	No	No. Habitat too degraded	Y
Lepidium aschersonii	Spiny Pepper-cress	Vulnerable	No	No. Habitat too degraded	Y
Pterostylis cucullata	Leafy Greenhood	Vulnerable	No	No. Not suitable habitat	Y
Xerochrysum palustre	Swamp Everlasting	Vulnerable	No	No. Habitat too degraded	Y
Dodonaea procumbens	Trailing Hop-bush	Vulnerable	No	No. Not suitable habitat	N
Senecio macrocarpus	Large-fruit Fireweed	Vulnerable	No	No. Habitat too degraded	Y

Table 3. Listed flora species, botanical name, common name, threatened category, presence recorded this survey (yes/no), suitability of the location to support species and listing under the State FFG Act.

Implications

The study area is assessed to provide no habitat for the listed threatened plant species. It is assessed that for two of the listed species; Trailing Hop-bush and Leafy Greenhood, suitable habitat does not exist and that for 13 of the listed species; Large-fruit Fireweed, Swamp Everlasting, Spiny Pepper-cress, Clover Glycine, Green-striped Greenhood, River Swamp Wallaby-grass, Matted Flax-lily, Small Golden Moths Orchid, Hoary Sunray, Button Wrinklewort, Adamson's Blown-grass, Basalt Pepper-cress and Plains Rice-flower, the existing habitat is too degraded to support the species.

4 LEGISLATION AND GOVERNMENT POLICY

4.1 Commonwealth

4.1.1 *Environment Protection and Biodiversity Conservation Act (1999)*

The Environment Protection and Biodiversity Conservation (EPBC) Act (1999) was **e**stablished to 'promote the conservation of biodiversity by providing strong protection for listed species and communities in the Commonwealth and for protected areas, Ramsar sites, Commonwealth Reserves, conservation zones and World Heritage sites, etc.'

The EPBC Act applies to developments and associated activities that have the potential to significantly impact on matters protected under the Act. Under the Act, unless exempt, actions require approval from the Australian Government Minister for Environment and Heritage if they are likely to significantly impact on a 'matter of national environmental significance'. There are currently seven matters of national environmental significance (NES):

- World Heritage properties;
- National Heritage properties;
- nationally listed threatened species and ecological communities;
- listed migratory species;
- Ramsar wetlands of international significance;
- Commonwealth marine areas; and
- nuclear actions (including uranium mining).

Any person proposing to take an action that may, or will, have a significant impact on a matter of national environmental significance must refer the action to the Australian Government Minister for Environment and Water Resources for determination as to whether the action is a 'controlled action' or is not approved.

Natural Temperate Grassland of the Victorian Volcanic Plain is an ecological community that is listed as 'Critically Endangered' under the EPBC Act (EPBC Website i). The study area contains areas one small area of degraded native vegetation ((Slender Wallaby-grass) that is indicative of this community.

Grassy Eucalypt Woodland of the Victorian Volcanic Plain is an ecological community that is listed as 'Critically Endangered' under the EPBC Act (EPBC Website i). The study area contains areas one small area of degraded native vegetation would have been indicative of this community.

Ramsar wetlands of international significance. Limeburners Bay RAMSAR site occurs downstream from the proposed sub-division.

4.1.2 Implications

Natural Temperate Grassland of the Victorian Volcanic Plain

The cover value of the native vegetation (Slender Wallaby-grass) is less than 50% and so does not meet the ecological community threshold.

Due to the degraded nature of the vegetation of the study area, it is assessed that there are no implications for the current proposal under the EPBC Act for the Natural Temperate Grassland of the Victorian Volcanic Plain ecological community. Consequently, the removal of this vegetation is assessed to not be a controlled action and there would be no referral implications for this community.

Grassy Eucalypt Woodland of the Victorian Volcanic Plain

The occurrence of the Common Reed dominated vegetation is small and relatively degraded and does not meet the ecological community Grassy Eucalypt Woodland of the Victorian Volcanic Plain threshold values.

Due to the degraded nature of the vegetation of the study area, it is assessed that there are no implications for the current proposal under the EPBC Act for the Grassy Eucalypt Woodland of the Victorian Volcanic Plain. Consequently, the removal of this vegetation is assessed to not be a controlled action and there would be no referral implications for this community.

Limeburners Bay RAMSAR site

Any development of the study area would require the adoption of an approved Storm Water Management Plan that demonstrates that there would be no adverse impacts to the Limeburners Bay RAMSAR site.

The document Stormwater Management Strategy Lara Farms Rennie Street Lara (Loetis March 2024) provides actions designed to mitigate adverse impacts to the Limeburners Bay RAMSAR site

4.2 State

4.2.1 Native Vegetation Permitted Clearing Regulations

Under Particular Provision (Native Vegetation Clause 52.17) the State has gazetted the Native Vegetation Permitted Clearing Regulations. The Regulations introduce a 'risk-based approach to assessing applications to remove native vegetation' (DEECA website i).

The purpose of Clause 52.17 is to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This is achieved by applying the following three step approach in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation* (Department of Environment, Land, Water and Planning, 2017). This includes:

1. Avoid the removal, destruction or lopping of native vegetation.

2. Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.

3. Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation.

To manage the removal, destruction or lopping of native vegetation to minimise land and water degradation (DEECA website i).

Under the Regulations, any areas of patch or scattered tree native vegetation that are proposed to be removed are subject to protection/and or recruitment offsets, depending upon the characteristics of the site.

When native vegetation removal is permitted, an offset must be secured which achieves a no net loss outcome for biodiversity. To achieve this the offset makes a contribution to Victoria's biodiversity that is equivalent to the contribution made by the native vegetation that was removed. The type and amount of offset required depends on the native vegetation being removed and the contribution it makes to Victoria's biodiversity.

Implications for the current proposal are discussed as follows. Refer to Figure 5 for location mapping (DEECA data).

4.2.2 Implications

The results show that the current vegetation condition for the study area records two areas (1.04 ha in size) of native vegetation with greater than 25% cover value of perennial native plant species, i.e., patch native vegetation. Refer to Figure 3a for the location of the areas of patch native vegetation recorded this survey.

Amendment C444/C453 proposes the removal of areas of native vegetation. Specifically, the two areas recorded patch native vegetation are proposed to be partially impacted to create a northern drainage outfall (refer to Figure 4). Consequently, there would be implications for the removal of these areas of native vegetation under the Regulations.

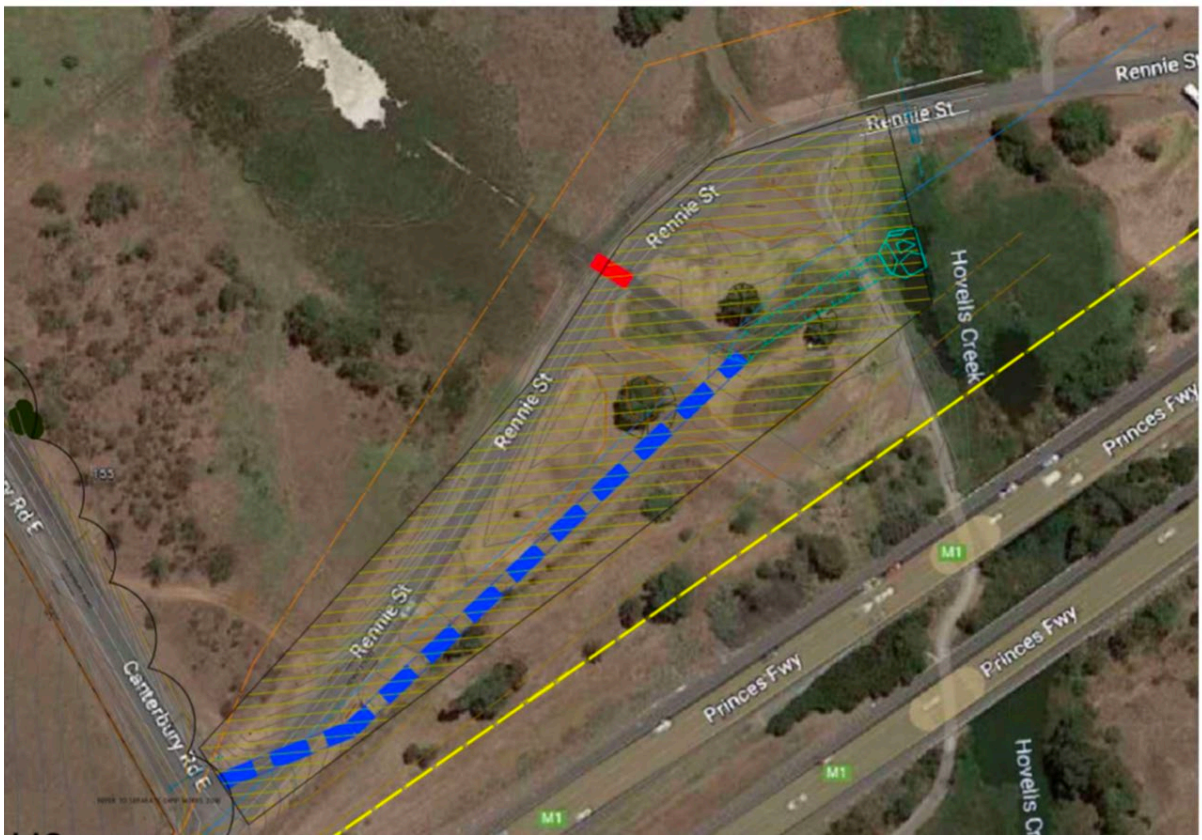

Figure 4. Proposed northern drainage outfall shown as blue hashed line.

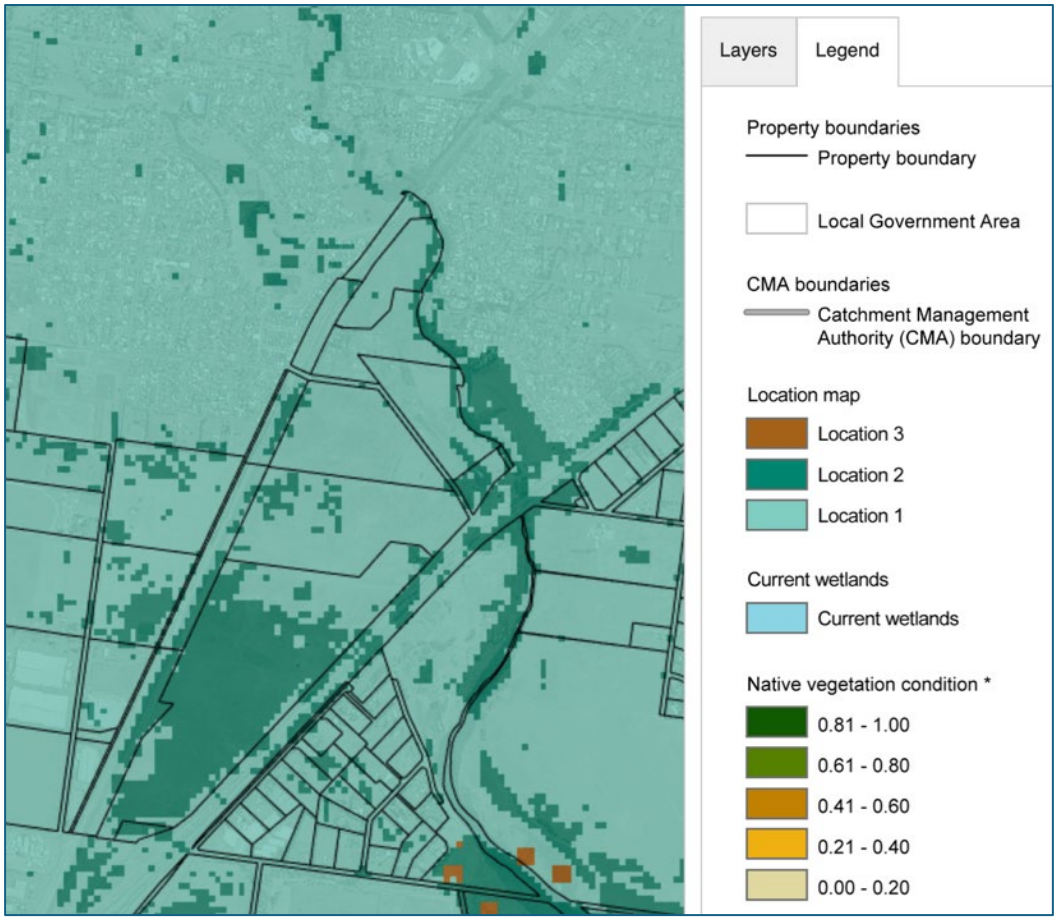

Figure 5. Distribution of vegetation according to 'Location'. Green equates to 'Location 1' (i.e. lowest risk), dark green equates to 'Location 2' (i.e. medium risk), (DEECA website iii).

The study area is located within Locations 1 and 2. Areas of recorded native vegetation occurs within Locations 1 and 2. The study area is not subject to a current wetlands overlay.

4.2.3 Avoid and minimise

The "avoid and minimise" principals have been applied to the current proposal design. The design intent is to utilise the existing drainage easement as much as is possible to limit impacts.

However, the exact impacts on native vegetation, and hence implications for Clause 52.17, are yet to be determined, pending further design calculations at a more detailed planning level during the preparation of the Development Plan and planning permit application.

4.3.1 *Flora and Fauna Guarantee Act (1988)*

The Flora and Fauna Guarantee Act (1988) is legislative framework for the protection and management of biodiversity. The objective of the Act is to conserve all of Victoria's native plants and animals.

Mechanisms within the act include:

- listing threatened species, communities and threats to native species
- requiring an overarching strategy for Victoria's biodiversity
- enabling the declaration of habitat critical to the survival of native plants and animals
- placing a duty on public authorities to have regard to the objectives of the Act in their operations
- requiring permits for activities that could harm threatened plants and fish and communities (DEECA website vi)

Legislation to modernise and enhance the Act has passed the Victorian Parliament. The *Flora and Fauna Guarantee Amendment Bill 2019* amends the Act with stronger framework for the protection of Victoria's biodiversity. This took effect after 1st June 2020. (DEECA website vi). Protected flora are native plants or communities of native plants that have legal protection under the Act. The Protected Flora List includes plants from three sources:

- plant taxa (species, subspecies or varieties) listed as threatened under the Flora and Fauna Guarantee Act 1988
- plant taxa belonging to communities listed as threatened under the Flora and Fauna Guarantee Act 1988
- plant taxa which are not threatened but require protection for other reasons. For example, some species which are attractive or highly sought after, such as orchids and grass trees, are protected so that the removal of these species from the wild can be controlled. For all listed species protection includes living (eg flowers, seeds, shoots and roots) and non-living (eg bark, leaves and other litter) plant material.

The handling of protected flora is regulated by DEECA to ensure that any harvesting or loss is ecologically sustainable. A 'Protected Flora Licence' or Permit must be obtained from DEECA to collect protected native plants or if works or other activities are planned that may kill, injure or disturb protected native plants on **public land**. In the case of works, DEECA may place conditions on a licence or permit which serve to avoid or minimise the loss of protected flora or to make good any disturbance caused. (DEECA website vii).

There are no listed threatened plant taxa recorded by the current survey within the study area.

Western (Basalt) Plains Grassland Community
Although widespread at the time of European settlement, only scattered remnants of the Western (Basalt) Plains Grasslands Community now remain on the Victorian Volcanic Plain, The near-absence of tree cover is thought to be due to the heavy basaltic soils and to frequent firing prior to European settlement. Degraded Western (Basalt) Plains Grasslands Community can be heavily invaded by introduced grasses and weed species. (Flora and Fauna Guarantee Act 1988 – Threatened List Characteristics of Threatened Communities).

Spiny Rice-flower
The Plains (Spiny) Rice-flower Pimelea spinescens ssp *spinescens is endemic to Victoria where it occurs in grassland or open shrubland North and West of Melbourne. It is currently listed as vulnerable under the EPBC Act and threatened under the Victorian Flora and Fauna Guarantee Act 1988. For management purposes the Victorian Department of Natural Resources and Environment classify it as endangered in the list of Rare or Threatened Vascular Plants in Victoria.*

The Plains Rice-flower is a small, stunted shrub 5-30cm high with spine-like tips on older branches. It has small green, elliptical leaves and in mid winter produces small clusters of pale yellow flowers. It is slow growing and occurs in grassland or open shrubland to the North and West of Melbourne and may live up to 100 years.
The Plains Rice-flower occurs in lowland grassland habitats to the North and West of Melbourne with an extent of occurrence of approximately 27,500km2. Within this broad extent of occurrence, the Plains Rice-flower has a patchy and very restricted area of occupancy, estimated to be 5.7km2 (570ha) with an upper limit likely to be 10km2 (1000ha). The population is severely fragmented, there being 26 known subpopulations that are geographically isolated from each other. The geographic separation of subpopulations means that geneflow between subpopulations is likely to be minimal. Seedling recruitment is also rarely observed within the subpopulations and successful recruitment is an irregular event. This limited recruitment capacity of the Plains Rice-flower is a factor that limits its opportunity for natural establishment at suitable grassland sites or recolonization of sites where it may have become extinct.

The decline in abundance and distribution of the Plains Rice-flower and its lowland grassland habitat can be attributed to losses associated with development and habitat degradation. Current threats from land development include clearing and disturbance associated with the construction of industrial estates and roads. Habitat degradation due to invasive weeds, particularly species of the southern American genus Nassella (including Serrated Tussock), continues to adversely impact subpopulations through increased competition for space and resources. Despite some success translocating individual plants prior to development activities (Mueck 2000), the lack of natural recruitment and ongoing habitat loss means that declines are likely to continue in the extent of occurrence, area of occupancy, quality of habitat, number of subpopulations and number of mature individuals (DCCEEW, 2022h).

4.3.2 Implications

The **Western (Basalt) Plains Grassland Community** was recorded for the study area (Slender Wallaby-grass). The occurrence of Slender Wallaby-grass would be assessed as '*Degraded Western (Basalt) Plains Grasslands Community'*.

Consequently, there would be no implications for the Western (Basalt) Plains Grassland Community for the FFG Act. Refer also to Section 3.5.

Spiny Rice-flower
The section of the study area that provide potential habitat for Spiny Rice-flower were investigated by this survey and were found to be highly disturbed with surface rock removed fertilized and cropped and dominated by weedy species. No Spiny Rice-flower plants were identified and no areas with suitable conditions for Spiny Rice-flower to occur were identified.

Consequently, there are no implications for the Spiny rice-flower for the FFG Act. Refer also to Section 3.5. No further investigations are required with regard to this species.

6 CONCLUSIONS

Introduction
Land in Lara, Victoria is proposed to be rezoned for industrial and residential use (Amendment C444/C453). The study area is comprised of 705-765 Princes Highway, 785-805 Princes Highway and 610 Rennie Street as well as adjacent areas of roadside reserves and the proposed northern drainage outfall area to Hovells Creek.

Results
The vegetation of the study area is overwhelmingly degraded and is dominated by exotic pasture grasses and weeds. No natural surface basalt rock was recorded.

Non-patch (degraded) native vegetation exists at 705-765 Princes Highway consisting of areas of native Slender Wallaby-grass that occur amongst otherwise degraded exotic vegetation.

Two areas of patch native vegetation were recorded, both within the northern drainage outfall area adjacent to Hovells Creek. These patches are proposed to be partially impacted to create a northern drainage outfall. Consequently, there would be implications for the removal of these areas of native vegetation under the Regulations.

Six locally significant native vascular plant species were recorded from the study area. No State, National or Regionally significant plant species were recorded within the study area.

Five threatened ecological communities potentially occur in the vicinity of the study area. Two of these communities (Natural Temperate Grassland of the Victorian Volcanic Plain and Grassy Eucalypt Woodland of the Victorian Volcanic Plain) were recorded for the study area. One of these communities (Western (Basalt) Plains Grasslands Community) is listed under the *Flora and Fauna Guarantee Act 1988.*

Due to the small size and degraded nature of the recorded occurrences of these communities, it is assessed that there are no implications for the Commonwealth EPBC Act or the State FFG Act.

The study area is assessed to provide no habitat for the 15 listed threatened plant species that potentially occur within the study area. It is assessed that for two of the listed species suitable habitat does not exist and that for 13 of the listed species the existing conditions are too degraded to support the species.

Limitations
There are not considered to be any significant limitations to the findings of this study.

Appendix 1 Assessing conservation significance

Conservation significance is assessed at a range of scales, including national, state, regional and local. Criteria used for determining the conservation significance of flora at national to local scales are presented below for botanical conservation significance.

Botanical Significance

National botanical significance applies to an area when it supports one or more of the following attributes:

a population of at least one nationally threatened plant species listed by Briggs and Leigh (1996) or plant species listed on the schedules to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

A nationally threatened ecological community listed on the schedules of the *Environment Protection and Biodiversity Conservation Act 1999*.

State botanical significance applies to an area when it supports one or more of the following attributes:

A population of at least one plant species threatened in Victoria, as listed on the schedules to the Victorian *Flora and Fauna Guarantee Act 1988*.

An ecological community considered threatened in Victoria through its listing on the schedules of the *Flora and Fauna Guarantee Act 1988*.

Regional botanical significance applies to an area that supports one or more of the following attributes:

Supports a population of one or more regionally depleted species defined in a valid regional assessment of biodiversity (eg. Regional Native Vegetation Plan, Environment Conservation Council Report or Comprehensive Regional Assessment documents).

An ecological vegetation class that is considered endangered or vulnerable in a particular bioregion (based on Conn 1993 and the Regional Native Vegetation Plan).

An ecological vegetation class that is considered depleted in a particular bioregion (based on Conn 1993 and the Regional Native Vegetation Plan).

Local botanical significance applies to all remnant native vegetation that does not meet the above criteria. In much of Victoria native vegetation has been so depleted by past clearing and disturbance that all remaining vegetation must be considered to be of at least local conservation significance.

7 REFERENCES

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Plates 1-9 Vegetation existing conditions

Plate 1. Exotic vegetation in study area Princes Hwy property and on railway reserve.

Plate 2. Exotic vegetation in study area Princes Hwy property and on Rennie Street road reserve.

Plate 3. Typical conditions. Cropped land Princes Hwy property.

Plate 4. Degraded vegetation with Slender Wallaby-grass. 705-765 Princes Hwy.

Plate 5. Degraded vegetation 610 Rennie Street.

Plate 6. Degraded vegetation and planted vegetation 610 Rennie Street.

Plate 7. Degraded vegetation on left and patch native vegetation dominated by Common Reed at Hovells Creek.

Plate 8. Patch native vegetation dominated by Common Reed at Hovells Creek.

Plate 9. Degraded vegetation Rennie Street north of Canterbury Road East.