80A & 80B Oakwood Road Albanvale: Preliminary Documentation for EPBC 2018/8158

Prepared for Panorama Investment (Albanvale) Pty Ltd

24 February 2020

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Document information

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- Panorama Investment (Albanvale): Yi tong Chen & Ben Liu.

Biosis staff involved in this project were:

- Sonika Kumar (mapping).

Contents

Figures

1. Introduction

1.1 Project background

Biosis Pty Ltd was commissioned by Panorama Investment (Albanvale) to prepare Preliminary Documentation for the proposed residential development at 80A & 80B Oakwood Road, Albanvale, Victoria (EPBC 2018/8158). The proposed development was deemed to be a controlled action by the Commonwealth Department of the Environment and Energy (the Department / DoEE now Department of Agriculture, Water and the Environment (DAWE)) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as it is likely to have a significant impact on listed threatened species and communities (section 18 and 18A of the EPBC Act). This document provides responses to the Department's request for further information.

The subject site is approximately 18 kilometres north-west of Melbourne's Central Business District, situated in the suburb of Albanvale, between Station Road to the east and Oakwood Road to the west (Figure 1). The site is one of a few undeveloped parcels of land in an urbanised landscape used for residential and commercial purposes. The site is also roughly bisected by transmission power-lines running north-east/ south-west.

The study area has been subject to the following biodiversity assessments:

- An initial biodiversity assessment undertaken by Ecology and Heritage Partners Pty Ltd (EHP) in 2017, which incorporated a field assessment undertaken in June 2017 to identify native vegetation and assess the potential of the habitat on site to support threatened species.
- An assessment undertaken by EHP in 2018 to determine the presence, or potential presence, of Matters of National Environmental Significance (MNES) protected under the EPBC Act. This assessment incorporated targeted surveys for threatened species.
- An updated biodiversity assessment undertaken by Biosis in 2019, which included review and collation of the above assessment reports, a site inspection undertaken in March 2019, and an assessment of the project against updated state policy, specifically Victoria's Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017).

This preliminary documentation report largely draws on the details presented in the assessment reports listed above. Many sections of this report have therefore been extracted from the above assessments. Information sources used to prepare this documentation are referred to throughout and listed as references at the end of the document.

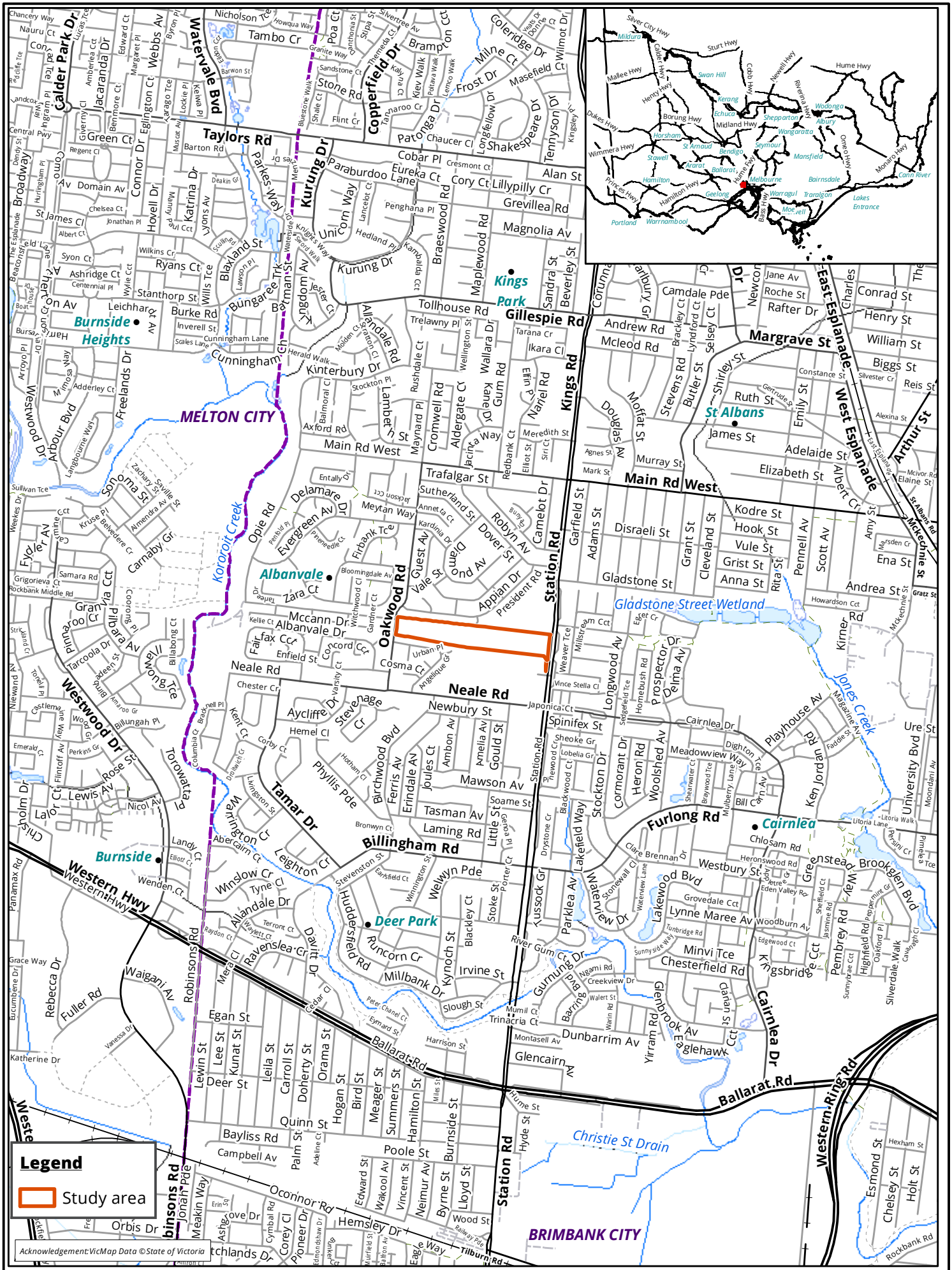

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Figure 1 Location of 80A & 80B Oakwood Road, Albanvale, Victoria

Matter: 29429,
Date: 04 March 2019,
Checked by: SGM, Drawn by: IPT, Last edited by: jturner
Location:\\bio-data-01\matters$\28000s\28074\Mapping\28074_F1_Locality.mxd

2. Preliminary Documentation

2.1 Description of the action

All construction, operational and (if relevant) decommissioning components of the action should be described in detail, including the precise location of all works to be undertaken, including plans and maps, and elements of the action that may have impacts on relevant MNES. The description of the action must also include details of how the works are to be undertaken (including stages of development and their timing) and design parameters for those aspects of the structures or elements of the action that may have relevant impacts.

Please ensure the information you provide includes the following:

- *(a) The location, boundaries and size (in hectares) of the disturbance footprint and of any adjoining areas which may be indirectly impacted by the proposal, including nearby habitat; and areas for stockpiles, vehicle access and associated activities.*
- *(b) For pre-construction, construction and operation phases:*
  - *i. The proposed activities associated with each phase.*
  - *ii. The anticipated timing and duration (including start and completion dates) of each phase.*
- *(c) A description of the operational requirements of the action including any anticipated maintenance works.*
- *(d) Relevant information about the history and use of the proposed action area and of any adjoining areas*
- *(e) Any feasible alternatives to the action to the extent reasonably practicable, including the alternative of taking no action, a comparative description of the impacts of each alternative on MNES. Sufficient detail must be provided to make clear why any alternative is preferred to another. Short, medium and long-term advantages and disadvantages of the options should be discussed.*

Response

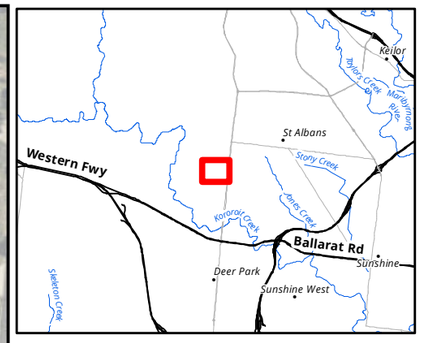
The site covers approximately 8.84 hectares and is otherwise known as 80A & 80B Oakwood Road, Albanvale. It is located approximately 16.5 kilometres north-west of the Melbourne central business district and is bounded to the east by Oakwood Road and to the west by Station Road. To the north, west of the transmission line, the site is bounded by the rear of residential housing fronting President Road, and to the south by the rear of residential housing fronting Angelique Grove. East of the transmission line, the site is bounded to the south by Brimbank Shopping Centre and to the north by undeveloped land and a petrol station. It is therefore largely surrounded by residential development and other associated infrastructure. This existing infrastructure will provide access to the site from the broader urban environment.

Historically the site has been used for the grazing of domestic stock prior to the gradual development of the local area to an urban environment. The area is now an undeveloped parcel of land within suburban Melbourne zoned as General Residential Zone 1 (GRZ1) within the City of Brimbank Planning Scheme. It includes a small, roughly square area with an Environmental Significance Overlay (ESO6).

The proposed master plan and how it relates to the surrounding land-use is shown in Figure 2. The master plan consists of residential housing with associated infrastructure such as roading, and limited areas of commercial development planned for the residual area in the east.

Operational requirements for the project involve the developers needing to obtain all relevant Victorian and Commonwealth government approvals to allow them to commence works.

Bulk earthworks will be undertaken over the entire development footprint to establish the local road network, utilities infrastructure and housing lots. Given the boundaries of the site are largely formed by existing built environments, no indirect impacts to any surrounding undeveloped land is anticipated. Works will be excluded from the undeveloped land along the transmission line to the north and south of the site and will also be excluded from the undeveloped vacant land north of the property and east of the transmission line.



Legend

Study area

Figure 2 Proposed Masterplan and landuse, 80A and 80B Oakwood Road, Albanvale

0 25 50 75 100

Metres
Scale: 1:2,500 @ A3
Coordinate System: GDA 1994 MGA Zone 55

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Matter: 28074,
Date: 08 April 2019,
Checked by: SGM, Drawn by: JPT, Last edited by: jturner
Location: \\bio-data-01\matters$\28000s\28074\Mapping\28074_F2_MasterPlan.mxd

The proposed development would result in the complete loss of all ecological values in the site within a few weeks of the project's initiation. The built form of the project will be established approximately within a year of commencement, expected to be mid to late 2020.

The site is zoned for residential development, therefore indicating that the proposed action is an appropriate and planned development for the site according to the Victorian Planning Scheme. No alternatives were considered by the proponent, as such an assessment would have been considered during planning and zoning considerations conducted by the local council.

Once completed the owner will have sold all of the residential properties and passed ownership of other land utilised for infrastructure to either the local council or relevant infrastructure managers. Panorama Investment (Albanvale) will have no enduring management or maintenance requirements at this site.

2.2 Description of the Environment and MNES

The preliminary documentation must provide a general description of the environment affected by and surrounding the proposed action area, in both the short and long term. Specific matters this section must address include, but are not limited to:

- *a) Descriptions of any MNES that may be affected by this proposal, including but not limited to the:*
  - *i. Natural Temperate Grassland of the Victorian Volcanic Plain ecological community that may be affected by the proposal.*
  - *ii. Striped Legless Lizard (*Delma impar*) habitat and populations that may be affected by this proposal.*
  - *iii. Flora species that may be affected by this proposal including but not limited to: Matted Flax-lily (*Dianella amoena*), Button Wrinklewort (*Rutidosis leptorrhynchoides*), Large-fruit Fireweed (*Senecio macrocarpus*) and Spiny Rice-flower (*Pimelea spinescens *subsp.* spinescens*).*
- *b) Information about the resources used to identify and assess the environmental values on site, including survey data and historical records.*
- *c) The results of any targeted surveys undertaken for the above matters in accordance with the relevant guidelines.*
- *d) Information detailing known/recorded areas of the ecological community mentioned above, the quantification (in hectares) of the extent of the ecological community present and details on the quality of this community within the development site and the area surrounding the proposed action area.*
- *e) Information detailing known/recorded populations of the species mentioned above and known or potential habitat within the development site and the area surrounding the proposed action area.*
- *f) Information must include maps indicating the extent and distribution of the ecological community and threatened species habitat/population.*
- *g) An assessment of the adequacy of any resources and historical data used and any surveys undertaken (including survey effort and timing). In particular, the extent to which these surveys were appropriate and undertaken in accordance with the Department's relevant scientific and policy guidance (see: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl).*

Response

2.2.1 Adequacy of surveys and data

Surveys and assessments utilised in this preliminary documentation were conducted by Ecology and Heritage Partners and their reports on this project are referenced throughout this document. These reports indicate that the assessments were conducted in in a manner which complies with appropriate standards and are considered adequate for DAWE to assesses this development proposal.

2.2.2 Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP)

EHP (2017) identified 4.09 hectares of the Victorian Ecological Vegetation Class (EVC) *Heavier soils* Plains Grassland (EVC 132-61) within the study area (Figure 3). The presence of this EVC is consistent with the

modelled pre-1750s native vegetation mapping (DELWP 2015). Eighteen indigenous flora species were recorded by EHP (2017) within the broader areas defined as native grassland. Weeds, including noxious species, are common and widespread.

The Initial biodiversity assessment by EHP (2017) identified six small, isolated and modified examples of NTGVVP, which cover a total area of 1.29 hectares. However, subsequent assessment undertaken by EHP (2018a) identified 0.12 hectares of NTGVVP which was destroyed by illegal dumping by an unknown third party. This provides an extant area of 1.17 hectares of NTGVVP within the study area (EHP 2018a).

Areas of Plains Grassland were assessed using the protocols approved by the Victorian Department of Environment, Land, Water and Planning (DELWP) otherwise known as the habitat hectare assessment method (DSE 2004). Using this process, EHP identified five habitat zones of Plains Grassland (PG1 to PG5), which are displayed in Figure 2 and described as follows:

PG1 is dominated by native grasses such as Kangaroo Grass *Themeda triandra*, Wallaby-grass *Rytidosperma* species and Spear-grass *Austrostipa* species. Native forbs such as Slender Bindweed *Convolvulus angustissimus*, Common Woodruff *Asperula conferta*, and Sheep's Burr *Acaena echinata* are present. PG1 also contains the study area's only known occurrence of Spiny Rice Flower *Pimelea spinescens* subsp. *spinescens* (SRF). Weed cover is between 20-25%, which includes Serrated Tussock *Nassella trichotoma* and Ribwort *Plantago lanceolata*.

PG2 contains greater than 50% cover of native perennial grasses, particularly wallaby grasses, spear grasses and Rigid Panic *Walwhalleya proluta*. However, it contains less Kangaroo Grass than PG1 and has fewer native forbs present. Weeds present include Paspalum *Paspalum dilatatum* and Serrated Tussock.

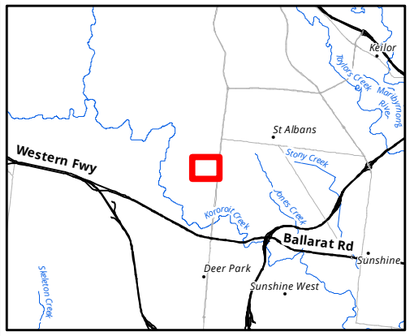
PG3 is dominated by Wallaby-grass and Kneed Spear-grass *Austrostipa bigeniculata*, with few native forbs present.

PG4 is dominated by Wallaby-grass and Kneed Spear-grass, with few native forbs present, but has a relatively low proportion of weeds.

PG5 is dominated by Windmill Grass *Chloris truncata* and wallaby grasses, with a high proportion of high-threat weeds including Serrated Tussock, Chilean Needle Grass *Nassella neesiana*, Ribwort, and Onion grass *Romulea rosea*.

EHP (2017 & 2018a) classified 1.17 hectares of the extant native vegetation as NTGVVP. Of the above habitat zones, areas of NTGVVP were included in PG 1 to 4. These habitat zones had habitat hectare scores (DSE 2004) ranging from 13/100 to 29/100. As such, the condition score for the entire area of NTGVVP is taken to be an average of 3/10 (i.e. habitat hectare scores are converted to a score out of ten by rounding the numerator up to the nearest integer). This score (3/10) is used as the condition score in the impact component of the EPBC Act offset calculator.

The study area is largely surrounded by residential development and is only diffusely connected to any other remnant native vegetation within the broader local area. Remnants of Plains Grassland likely to correspond to NTGVVP are located within the broader local area at Iramoo Wildflower Grassland Reserve, approximately 700 metres east of the study area, and Isabella Williams Grassland Reserve, approximately 1.2 kilometres west of the study area.



Legend

- Study area
- Illegally cleared

EPBC Act listed vegetation community

- Natural Temperate Grassland of the Victorian Volcanic Plain

Figure 3 The extent of NTGVVP identified within 80A and 80B Oakwood Road, Albanvale

0 25 50 75 100

Metres
Scale: 1:2,500 @ A3
Coordinate System: GDA 1994 MGA Zone 55

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Matter: 28074,
Date: 20 December 2019,
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Location: P:\28000s\28074\Mapping\
28074_F3_NTGVVP.mxd

Acknowledgements: Vicmap ©State of Victoria, Imagery - NearMap 2019

2.2.3 Striped Legless Lizard

Potential habitat for Striped Legless Lizard (SLL) was identified within the study area by EHP in June 2017, and targeted surveys were subsequently undertaken in spring 2017 (EHP 2018a). The targeted survey utilised artificial shelters (roof tiles) placed in three rectangular survey grids, each containing 5 transects of 10 terracotta roof tiles, placed approximately 5 metres apart. Tiles were placed in areas of suitable habitat that were deemed by EHP as having the highest likelihood of supporting the species. Tiles were placed and checked in accordance with the Commonwealth survey guidelines for the species (Commonwealth of Australia 2011).

Six tile checks were undertaken and a total of 18 individuals were recorded during four of these checks. SLL were recorded from two of the three tile grids (Figure 4). The maximum number of individuals recorded during any given check was 12.

On the basis of the survey results and general habitat assessment, EHP (2018a) defined 5.23 hectares of the study area as SLL habitat (Figure 4). This includes areas of Plains Grassland as well as areas dominated by introduced tussock grasses.

SLL is known to occur within the local area, with hundreds of previous records of the species from land to the immediate east and south-east of the study area (DSE 2010). These areas have since largely been subject to residential development. However, the species is known to persist in grassland habitat within the Iramoo Wildflower Grassland Reserve, approximately 700 metres east of the study area (DSE 2010).

2.2.4 Spiny Rice-flower

One individual Spiny Rice-flower (SRF) plant was recorded within the study area by EHP during the initial biodiversity assessment (EHP 2017). Targeted survey for SRF was subsequently undertaken in June and July 2017 in an attempt to determine if any additional plants were present within the study area (EHP 2018a). Targeted survey was undertaken by qualified botanists during the known flowering period for the species, utilising transects of 3-5 metre spacing through all areas of potential habitat within the study area. Targeted survey methodology therefore was consistent with the Commonwealth survey guidelines for the species (Commonwealth of Australia 2009a).

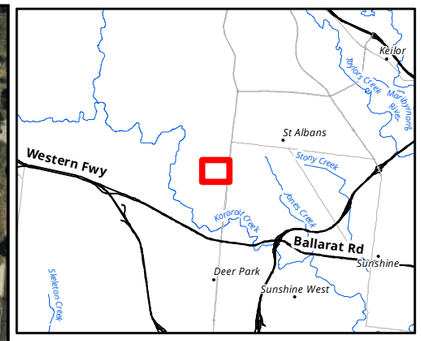
The targeted survey confirmed the presence of the single SRF plant recorded in 2017, but did not locate any additional plants. As the targeted survey was undertaken at an appropriate time of year and in accordance with Commonwealth survey guidelines, it is considered unlikely that the study area supports any additional SRF plants. The location of the single SRF plant within the study area is displayed in Figure 5.

2.2.5 Other listed species

While the targeted flora surveys were undertaken primarily for SRF, other listed threatened flora species including Matted Flax-lily, Button Wrinklewort and Large-fruit Fireweed were also surveyed for (EHP 2018a). No additional threatened flora species were recorded within the study area during targeted flora surveys or during any additional surveys undertaken within the study area. It is therefore considered unlikely that any additional listed flora species occur within the study area, based on survey results and the poor quality of habitat present (EHP 2018a; Biosis 2019).

Targeted surveys for Golden Sun Moth *Synemon plana* were also undertaken by EHP in December 2017 and January 2018, based on the presence of potentially suitable grassland habitat. Targeted survey for Golden Sun Moth was undertaken in accordance with the Commonwealth survey guidelines for the species (Commonwealth of Australia 2009b). However, the species was not recorded within the study area. Therefore, it is unlikely that the species occurs on the site.

No further listed threatened species or ecological communities are likely to be present within the study area.



Legend

- Study area
- Illegally cleared

Targeted survey results

- Striped Legless Lizard habitat
- Tile grid locations

Figure 4 Striped Legless Lizard records and habitat within 80A and 80B Oakwood Road, Albanvale

0 25 50 75 100

Metres
Scale: 1:2,500 @ A3
Coordinate System: GDA 1994 MGA Zone 55

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Matter: 28074,
Date: 08 April 2019,
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Location: \\bio-data-01\matters$\28000s\28074\Mapping\28074_F4_SLL.mxd

Acknowledgements: Vicmap ©State of Victoria, Imagery - NearMap 2019

Figure 5 Spiny Rice-flower recorded within 80A and 80B Oakwood Road, Albanvale

0 25 50 75 100

Metres
Scale: 1:2,500 @ A3
Coordinate System: GDA 1994 MGA Zone 55

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Matter: 28074,
Date: 08 April 2019,
Checked by: SGM, Drawn by: JPT, Last edited by: jturner
Location: \\bio-data-01\matters$\28000s\28074\Mapping\28074_F5_SRF.mxd

Acknowledgements: Vicmap ©State of Victoria, Imagery - NearMap 2019

2.3 Relevant impacts

The preliminary documentation must include an assessment of potential impacts (including direct, indirect, facilitated and cumulative impacts) that may occur as a result of all elements and project phases of the proposed action including but not limited to the MNES addressed. Consideration of impacts must not be confined to the immediate area surrounding the proposed action but must also consider the potential of the proposed action to impact on adjacent areas that are likely to contain MMES or habitat for MNES.

For listed threatened species and communities this must include, but not be limited to:

a) An assessment of the direct and indirect loss and/or disturbance of the Natural Temperate Grassland of the Victorian Volcanic Plain ecological community as a result of the proposed action. This assessment must include the quality of the ecological community impacted, quantification of the total area in hectares and an analysis of the direct and indirect impacts on the ecological community including the nature of the proposed impacts (e.g. disturbance, destruction, modification, fragmentation).

b) An assessment of the direct and indirect loss and/or disturbance of any known or potential habitat/populations of the species addressed at Section 3 as a result of the proposed action. This assessment must include the area/number of known or potential habitat/populations to be impacted and an analysis of the direct or indirect impacts on the species' populations/habitat including the nature of the impacts (e.g. disturbance, habitat loss, modification, fragmentation).

Response

2.3.1 NTGVVP

The action will result in the direct and permanent loss of 1.17 hectares of the NTGVVP ecological community. All impacts will be confined to the land at 80A and 80B Oakwood Road, Albanvale and no NTGVVP outside the impact area will be impacted directly or indirectly by the proposed action. This loss is considered to constitute a minor impact on the extent of the ecological community across the Victorian Volcanic Plain, particularly when placed in the context of the amount of clearing of the community that is expected over the next 30 years as part of the Melbourne Strategic Assessment (DSE 2009). Moreover, this example of the community is species poor, relatively isolated from nearby patches and is in poor ecological condition.

The quality of the patch within the affected area is expected to continue to decline due to ongoing threats and lack of ecological management.

The retention of any areas of NTGVVP as part of the development process is taken as the retention of one or more areas of this community that are unlikely to be viable in the long-term. Development of the site, regardless of any attempt to retain areas of NTGVVP, will be assessed as if all of the NTGVVP present is lost.

2.3.2 Striped Legless Lizard

The action will result in the direct and permanent loss of 5.22 hectares of SLL habitat. A small (0.013 hectares) patch of Plains Grassland EVC and mapped SLL habitat will be retained within the power line corridor, however given its small size it is considered highly unlikely that SLL would persist in this patch following development of the study area. This retained patch of SLL habitat is therefore assumed lost for the purpose of quantifying impacts and determining offsets. It is therefore assumed that the area of lost SLL habitat amounts to 5.23 hectares. These area calculations are based on habitat assessments and mapping undertaken by EHP (2018a), displayed in Figure 4. The area calculations by EHP assumes that all areas of potential habitat (presumably determined based on the presence of suitable habitat characteristics) are occupied by the species. The size of the SLL population on the site is not known. It is not known if the species also occurs on the undeveloped land to the north of the site, or within the power easement running through the site. It is therefore possible that the loss of the SLL habitat within the study area may reduce the long-term persistence of the species in the immediate area (assuming the population extends to the undeveloped land

to the north of the site and within the power easement). However, long-term persistence of the population is unlikely since urban development is also proposed for this adjacent land and is not actively managed for SLL or its habitat.

The retention of any areas of SLL habitat as part of the development process is taken as the retention of one or more areas of this habitat that is unlikely to be viable in the long-term. Development of the site, regardless of any attempt to retain areas of SLL habitat, will be assessed as if all of the SLL habitat present is lost.

2.3.3 Spiny Rice-flower

The action will result in the removal of one SRF plant, which is proposed to be translocated to a recipient grassland reserve, to be determined in consultation with the *Pimelea spinescens* recovery team. As there are less than five SRF plants proposed to be impacted, the action does not constitute a significant impact to this species (Commonwealth of Australia 2009a).

2.3.4 Other listed species

Targeted surveys failed to record any additional listed threatened species within the study area, including Golden Sun Moth, Matted Flax-lily, Button Wrinklewort and Large-fruit Fireweed. Given the site's location within a largely developed and disturbed area, the proposed action is considered unlikely to result in any direct or indirect impacts to these or any additional listed species.

c) Details on whether any impacts are likely to be unknown, unpredictable or irreversible.

Response

The impacts are well documented and it is unlikely that there are additional or unforeseen impacts. The loss of the habitat on site would be irreversible.

d) Any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

Response

The extent of NTGVVP and occurrence of SLL and SRF have been documented in EHP (2017) and EHP (2018a). The impact is clear since it involves the complete removal of all vegetation and habitat on the site (except under a section of the high tension power-lines). No further information is needed to determine impacts to these or other listed ecological communities or species.

e) Any information about potential impacts to MNES within or adjacent to the proposed disturbance footprint resulting from site condition, context or usage history.

Response

The site is currently undeveloped urban land zoned as General Residential (GRZ3) and Commercial (CZ1). As such it is and would (in the absence of development) continue to be viewed as undeveloped urban land. The site is regularly slashed to manage its perception as a fire hazard and is otherwise vulnerable to illegal dumping.

The site is not subject to any management for the ecological values present and the general lack of management results in the on-going proliferation of the existing populations of high threat environmental weeds. This ongoing lack of ecologically orientated management (which is not required by any legislation or authority) will result in the ongoing deterioration of the natural grassland and habitat values present.

The area of SLL habitat associated with this development is part of a broader, roughly 15 ha area of undeveloped land otherwise isolated by urban development. Of this over three hectares is part of a high

tension power-line easement, which only provides marginal SLL habitat (i.e. the easement was generally not identified as SLL habitat by EHP 2017). Therefore while this development proposal would reduce the extent of this isolated patch of habitat, and subsequently the size of any larger local population, it would not fragment the broader area of habitat (just reduce it).

While the local area of SLL habitat may extend beyond the proposed development site (i.e. into the roughly four hectares of undeveloped land to the north) the presence of SLL within this habitat is unknown (the site is not owned by the proponent of this development). However, SLL has shown it can persist for at least the short to medium term in relatively small areas (about a hectare) of habitat (i.e. Copernicus Way, Keilor Downs – EPBC 2016/7734).

The proposed action is therefore assumed to remove all or part of a discrete population of the species that is largely enclosed by residential development. Any remaining portion of the local population is expected to be able to persist for the short to medium term (estimated to be five to twenty years) in a manner similar to that noted in association with EPBC 2016/7734.

f) *A local and regional scale analysis of the likely impacts. This should include a discussion of connectivity, flow-on effects, potential cumulative impacts within the broader region and information on the long term viability of the ecological community and threatened species if the proposed action proceeds.*

Response

At the local scale, the proposal would result in the removal of 1.17 hectares of NTGVVP, one SRF plant and 5.23 hectares of SLL habitat. This habitat is isolated from nearby patches by urban development. This loss of habitat adds to the ongoing loss of NTGVVP and SLL habitat within the Melbourne area but makes a comparatively minor contribution to these losses in the context of Melbourne's ongoing and rapid urban development which will result in the removal of many small grassland areas over the next few decades.

The loss of a single SRF would have no impact to the local viability of any nearby population of the species. Both pollen and seed dispersal for this species is relatively constrained and this plant is unlikely to contribute genetically to any other population persisting in the local area (i.e. it is over 1 kilometre to known populations of SRF at Burnside to the west and Iramoo to the east).

The site is not more broadly connected to other SLL habitat and therefore this population is isolated and its loss has no impact on the natural viability of other local populations. The population is clearly of a size where it can be considered to be a breeding population and this may extend into undeveloped land to the north east and along the power-line easement. However, the long term viability of this population is unknown.

All populations of SLL are likely to be important for the species' recovery (TSSC 2016).

g) *Full justification of all discussions and conclusions based on the best available information including relevant conservation advices, recovery plans, threat abatement plans and guidance documents, if applicable. Departmental documents regarding listed threatened species can be found at: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl.*

Response

The information presented and referred to within this report has been based on the best available information for the study area and surrounding local area, and has given due regard to relevant policy documents.

2.4 Proposed avoidance and mitigation measures

The preliminary documentation must provide information on proposed avoidance and mitigation measures to prevent or minimise impacts to the MNES addressed at Section 3 that are likely to be impacted by the proposed action. A consolidated list of proposed avoidance and mitigation measures must be provided, based on best available practices and including, but not be limited to, the following elements:

a) *A detailed description of the measures proposed. This must include relevant protocols, the name of the agency responsible for each measure, and the location(s) and timing for each measure. Information regarding the extent to which such measures accord with the conservation priorities for relevant ecological community and/or threatened species.*

b) *A detailed description of any avoidance or mitigation, such as habitat retention, for known habitat/populations of ecological community and/or threatened species, including those addressed at Section 3, within the development area and information about how these measures accord with conservation priorities.*

c) *Details of any measures to minimise weed and pest introduction/spread. In particular, the specific weed and pest management actions that are proposed to be implemented in the project area.*

d) *A description (including maps) of the location, boundaries and size (in metres) of any buffer areas for proposed exclusion zones or conservation purposes and details on how these areas will be excluded or protected.*

e) *A statement addressing the environmental objectives/outcomes the measures are expected to achieve. This must include details of any baseline data, performance criteria, monitoring, reporting and corrective actions proposed to demonstrate progress towards achieving these objectives. For further information on outcomes-based conditions please see relevant Departmental policy documents at: http://www.environment.gov.au/epbc/publications/outcomes-based-conditions-policy-guidance.*

f) *An assessment of the expected or predicted effectiveness of the measures proposed.*

g) *A description of how the measures take into account the site condition/history.*

h) *Details of any statutory or policy basis for the measures proposed.*

i) *Measures for all project phases (construction, operation, decommission) of the proposed action.*

j) *Details of ongoing management, including research and monitoring programs to support an adaptive management approach and determine the effectiveness of the measures proposed.*

k) *An assessment of the achievability of the measures proposed, including affordability.*

l) *A description of any proposed rehabilitation to disturbed habitat areas, including management, methodology and timing.*

Response

The proposed action will result in the removal of all NTGVVP within the study area and the single SRF plant. It is not proposed to avoid or retain and protect areas of NTGVVP or the single SRF plant. The proposed action will also result in the removal of 5.23 hectares of mapped SLL habitat. A small (0.013 hectares) patch of Plains Grassland and mapped SLL habitat will be retained within the power-line corridor. However this small remnant is not considered viable in isolation and is therefore taken as lost if the development proceeds. Retention of any other areas for NTGVVP or SLL habitat within a local conservation park is also consider to lack viability in the long term. Development of the site is therefore considered to result in the loss of all existing ecological values.

As all of the ecological values of the site would be lost a conservation or environmental management plan for the development site is not considered necessary. Similarly the site is otherwise surrounded by urban development and these areas are already largely dominated by introduced species or developed environments. It is therefore considered unlikely that the project would exacerbate issues relating to pest plants and animals in the local area and the site will transition to a built form managed for landscape and amenity values by the local council.

Based on the outcome of a similar development in Brimbank (EPBC 2016/7734), Brimbank City Council may request that the SLL on site be salvaged and translocated to another grassland reserve in the local area. In this case, a SLL salvage and translocation plan for the site would be prepared and submitted to the DELWP Translocation Evaluation Panel (TEP) for consideration. Salvage and translocation of SLL is not considered an appropriate mitigation measure for the loss of habitat within the study area. For this reason, for the purpose of determining impacts, it is assumed that the entire population will be lost. Offsets will be sourced in line with the EPBC Act environmental offsets policy to compensate for impacts to SLL within the study area. These offsets will be identified and legally secured prior to the development proceeding.

It is possible that SLL occurs in adjacent undeveloped land, particularly to the north-east of the affected land. No activities associated with this development will occur on these adjacent land parcels as they are not owned by Panorama Investment Group. No machinery, rubbish, construction materials, tools, vehicles or other equipment will be stored on adjacent land. To ensure this does not occur all contractors working on this development site will have pre-start inductions that address MNES on the subject land and the potential for these matters to be present on adjacent land. This area will also be delineated from the development site by temporary fencing and marked as a no go zone for all works associated with this development.

A protocol will be developed to address the unlikely scenario of SLL being found during construction. Animals are unlikely to be found as they typically hide below the soil surface and are otherwise destroyed as a result of bulk earthworks and machinery movements associated with development works. However, all contractors will be inducted on what a SLL looks like and what to do in the event one is found.

The action will result in the removal of one SRF plant, which is proposed to be translocated to a recipient grassland reserve, to be determined in consultation with the *Pimelea spinescens* recovery team. As there are less than five SRF plants proposed to be impacted, the action does not constitute a significant impact to SRF (Commonwealth of Australia 2009a). A Spiny Rice-flower salvage and translocation plan will be prepared in accordance with recognised protocols and in consultation with the *Pimelea spinescens* recovery team.

2.5 Residual impacts/proposed offsets

The preliminary documentation must also provide details of:

a) *The likely residual impacts on MNES discussed at Section 3 that are likely to occur after proposed avoidance and/or mitigation measures are taken into account. If applicable, this should include the reasons why avoidance or mitigation of impacts cannot be reasonably achieved.*

b) *An offset package to compensate for residual impacts to MNES, if relevant. This should consist of an offset proposal (Offset Strategy) and key commitments and management actions for delivering and implementing a proposed offset (e.g. an Offset Management Plan (OMP)). Please note the strategy and management plan should be prepared as two separate documents.*

   The proposed offset must meet the requirements of the Department's EPBC Act Environmental Offsets Policy (October 2012) available at: www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy.

The package must include, but not be limited to, the following:

i. Offset Strategy: A description of the offset site(s) including location, size, condition and environmental values present.

a. Details of the surveys used to confirm the presence of the protected matter at the offset site and the quality of the offset site must also be included.

b. Justification of how the offset package meets the EPBC Act Environmental Offsets Policy.

c. An assessment (and justification for each input used) of the offset site(s) using the Department's Offset Assessment Guide available at: www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy.

ii. Offset Management Plan

a. Details on how the offset will be secured, managed and monitored, including management actions, responsibility, timing and performance criteria. This should include the specific environmental outcomes to be achieved from management measures.

Response

The provision of an offset area consistent with the output of the EPBC Act offset calculator is expected to be a condition of approval consistent with the Australian Government Outcomes-based conditions policy (Commonwealth of Australia 2016).

The offset assessment guide was used to define the extent of a generic offset site. The calculator was used to identify the extent and condition of the offset prescription defined for both the area of NTGVVP and SLL habitat required to provide a 100% direct offset. The larger of the two offset prescriptions would then be used to identify an offset site which supported both values so they could be offset concurrently.

NTGVVP offset calculation

The condition of patches of NTGVVP within the proposed action area was found to be relatively uniform throughout (EHP 2017; Biosis 2016). The quality of these patches was assessed by using the Victorian Government's 'habitat hectare' assessment protocols developed by DELWP (DSE 2004). The 'habitat hectare' assessment considers a number of factors including weed cover, organic matter, recruitment and species richness. Patches of NTGVVP within the proposed action area were assigned a habitat score of between 13/100 and 29/100 in accordance with the 'habitat hectare' protocol (DSE 2004). However the impact calculator only uses integers and therefore, for the purpose of determining offset requirements for the loss of these patches, a score of 3/10 was conservatively applied as the input score to inform the EPBC Act impact calculator. The calculated quantum of impact (in adjusted hectares) was therefore 0.35.

The risk related time horizon for the offset site has been set at 20 years with the time until ecological benefit set at 10 years to match the timeframe of the approved OMP.

The risk of loss for the vegetation without the offset is set at 10%. This is based on the existing land-use (grazing) and the low likelihood that this area of native vegetation would be cleared in the next 20 years, since it is protected under national environment law. However, remnants such as these are still illegally or inadvertently cleared, so there is still some residual risk of loss given that the site does not have formal protection. The proposed offset would continue to be used for grazing purposes if not protected under a legal mechanism. While Victoria's native vegetation clearing regulations offer some existing protection to the native vegetation within the proposed offset site, continued agricultural uses such as grazing may lead to its continued degradation.

The risk of loss with offset is set at 1% because the site would be protected in perpetuity and there is therefore a relatively low probability of the vegetation deteriorating in the presence of active management to promote the improvement of native vegetation through active weed control works and biomass

management. However, the risk is not considered zero as there is a small probability that the invasion of new high threat weeds or the influence of climate change could have negative impacts on this vegetation.

These assessments are made with a relatively high degree of confidence (set at 90%) because of observations associated with other NTGVVP offsets in Victoria's western district. Similarly, there is a high confidence (75%) for the time to ecological benefit being achieved based on observations from similar management regimes for NTGVVP offset areas managed under Trust for Nature covenants.

The habitat hectares score of a typical offset for NTGVVP is set as 60/100 which translates to a start quality score of 6/10 in the EPBC Act offset calculator. The EPBC Act Offsets Assessments Guide requires that when determining the suitability of a proposed offset, the minimum requirement is that the quality score of the offset site (future value with offset) must at least reach the same value as the quality score of the impact site. Without active management, NTGVVP would be expected to deteriorate in quality as weeds would be expected to gradually increase in prevalence. A number of high threat herbaceous weeds were recorded on the site. Without active management, the total cover of these weeds would be expected to increase. Additionally, there is currently no restriction on the type or number of stock (stocking density) grazing the site. Unrestricted grazing and high stocking rates (i.e. a change to grazing regimes) could be expected to result in a reduction in the quality of the community due the effects of selective grazing. Conversely, without active grazing, the quality of the grassland could deteriorate due to a build-up of biomass leading to a smothering of sensitive species and those that require inter-tussock spaces for their persistence. Conservatively a score of 5/10 is set for future quality without the offset (active management), which we consider very conservative given the observed and often rapid degradation of grasslands in the absence of active management. Once protected, the proposed offset area will have active biomass management through the use of selective grazing and burning to maintain grassland structure and plant species diversity. Regular weeding would also occur. The aim of the management plan for the offset site is to maintain the existing condition of the grassland. Therefore, we have conservatively elevated the future quality of a NTGVVP offset site to a score of 7/10.

The output of the offset calculator for NTGVVP using these parameters identifies an offset of 4.2 hectares would provide in excess of a 100% direct offset.

Striped Legless Lizard offset calculation

An approved methodology to score SLL habitat has not be defined in any available literature or in any advice or recovery plan prepared for DAWE. Following the standard protocols outlining the generic considerations used to assess the quality of any threatened species habitat, the following protocols were used to score both the impact and potential offset site.

Assessments of species habitat quality are based on the consideration of three parameters:

- Site Context (scored as X/4).
- Site Condition (scored as X/3).
- Species Stocking Rate (scored as X/3).

Where all of the criteria for a score are not met, the score will revert to the next lowest score. The total score will be out of a possible maximum of 10. This will then constitute the habitat quality score used as input for the EPBC Act environmental offset calculator.

Site context (X/4)

The *Referral guidelines for the vulnerable striped legless lizard* (Australian Government 2011) identified key characteristics which identified populations as 'key populations' that are important for future conservation, maintaining population viability, and supporting gene flow and dispersal.

Under the EPBC Act, an important population is one that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and / or that are:

- Key source populations for either breeding or dispersal;
- Populations that are necessary for maintaining genetic diversity, and/or
- Populations that are near the limit of the species range.

However, the Conservation Advice *Delma impar* (striped legless lizard) issued in 2016 by the Department of the Environment and Energy Threatened Species Scientific Committee (TSSC 2016), takes the view that all populations of the species are 'important' and covers aspects previously used in defining important populations in discussion of habitat critical to survival of the species (see below). It considers that all populations of the species are 'important' in light of identified limitations in understanding of fine scale population structure; difficulties in assessment for the species due to the fragmented and disturbed nature of its habitat; and in detection of the species due to its cryptic nature. The Conservation Advice therefore says that "it is considered that when one or more individuals are found on a site that they are member/s of an important population" (TSSC 2016). Using this approach, any site where SLL are present represents an important population. Sites where the species does not occur are not relevant to offset calculations and thus scoring will apply only to sites that support a population (according to criteria in subsequent sections), and no scoring is applicable for the simple presence or absence of a population. Note that the presence of a population must be determined on the basis of surveys undertaken in compliance with the minimum survey methods set out in the Referral guidelines for the vulnerable SLL (Australian Government 2011).

Habitat critical to the survival of the striped legless lizard

The following section is based on discussion in Department of the Environment and Energy Threatened Species Scientific Committee (2016).

The protection, management, improvement in understanding and monitoring of habitat critical to the survival of the SLL are priority conservation actions in this Conservation Advice (TSSC 2016). Until such time that further insights are made into understanding habitat variation and importance across and within regions, habitat critical to the survival of the SLL is likely to include sites that possess more than one of the following characteristics. A scoring method has been added for criteria about habitat values and contributes a total potential 4 points towards the overall total of 10 points:

- Provides breeding habitat. The presence of two or more adult individuals or juveniles (lizards < 70 mm snout to vent length) is confirmed on site and a habitat assessment confirms that the site contains complex grass structures including areas of tussocks with high biomass, soil cracks or invertebrate burrows necessary as sites for oviposition and which provide protection for eggs from disturbance. This may include sites with exotic grasses.

No scoring is allocated for provision of breeding habitat. This is because there is no applicable method to monitor for or measure breeding. Because the species is understood to be very sedentary with individual movements limited to a few metres, it can be accepted that where the species is present, breeding is likely to be occurring.

- Provides foraging habitat. The site is floristically diverse with little to no disturbance and is connected to other nearby grasslands or grassy woodlands providing for a diversity and abundance of foraging resources which is likely to sustain a healthy lizard population.

No scoring is allocated for provision of foraging habitat. This is because there is no applicable method to monitor for or measure foraging activity. Because the species is understood to be very sedentary with individual movements limited to a few metres, it can be accepted that where the species is present, foraging habitat is present.

- Provides refuge from disturbance events. The site is within the 'likely to occur' modelled distribution of the species (Department of the Environment and Energy Threatened Species Scientific Committee (2016) Appendix A) and contains surface rocks, arthropod burrows or suitable cracks in the soil where lizards can escape trampling by livestock or fire. Alternatively, it is a site without lizards recorded but has high biomass, surface rocks, arthropod burrows or suitable cracks in the soil and is in close proximity to a known population which is subject to disturbance and therefore provides for refuge during disturbance events and sites by which the lizards can recolonise from after the cessation of the disturbance.

0/1 = The sites supports relatively little refuge from disturbance events.

1/1 = The sites supports variety of refuges from disturbance events.

- Provides for long term protection from development. The site is currently covenanted for conservation management or has existing sympathetic management practices in place and or meets the threshold criteria of one of the four Endangered Ecological Communities (hence has a higher potential to be afforded protection under the EPBC Act).

0/1 = The site does not provide long term protection from development.

1/1 = The sites provides long term protection from development.

- Has connectivity value and contributes to the evolutionary potential of the species in the wild across its natural geographical range. The site is or forms part of a large area of habitat that is not in an urban area or zoning and contains and is connected to breeding habitat or to a site subject to conservation management such as a managed reserve. This can include sites where the lizard has not been recorded through surveys but the site must be free from adverse practices in the last 10 years such as ploughing, cropping, cultivation, fertiliser use or heavy grazing.

0/1 = The site has poor connectivity value and contributes little to the evolutionary potential of the species in the wild across its natural geographical range.

1/1 = The site has connectivity value and contributes to the evolutionary potential of the species in the wild across its natural geographical range.

Where uncertainty may exist with regard to habitat critical to the species survival, for example small, fragmented, highly modified or exotic habitats in urban areas between 0.1 and 10 hectares, the critical nature of the habitat on a site is likely to depend on one or more of the following characteristics:

- Occurs at the edge of the species known and likely modelled distribution (Appendix A),
- Represents a newly discovered range extension (see Appendix A),
- Has not been subject to adverse practices in the last 10 years such as ploughing, cropping, cultivation, fertiliser use or intense farming, or
- Contains a high density of lizards found through surveys on the site.

0/1 = The site is less than 10 hectares in size and/or does not meet at least one of the above four criteria.

1/1 = The site greater than 0.1 hectares in size and meets at least one of the above four criteria.

Site condition

Sites that have the best potential to support viable SLL populations are located in areas that supported or once supported native grasslands or grass woodlands. These areas must contain suitable tussock structure, appropriate soil type and minimal major disturbance such as ploughing (Coulson 1990; Dorrough & Ash 1999; Hadden 1995; O'Shea 1996). Sites that are rich in native tussock-forming grass species (often >20-50% cover) such as Kangaroo Grass, Spear-grasses *Austrostipa* spp. and Poa tussocks *Poa* spp. provide good habitat for

SLL, although the species can also inhabit areas dominated by introduced grass species where the site has a history of grazing and pasture improvement (Coulson 1995; Dorrough 1995; Smith & Robertson 1999; Commonwealth of Australia 2011). The species tends to find shelter within grass tussocks, thick ground cover, soil cracks, rocks and ground debris such as timber (Smith & Robertson 1999).

Site condition is assessed as a score out of three (of the overall total of 10), following the conditions below:

0/3 = Negligible - The sites supports relatively little or no tussock-forming grass species (native or non-native) with no shelters (crevices, rocks, logs) as habitat and does not contain native temperate grassland or grassy woodland on the site.

1/3 = Poor - The site supports < 10% tussock-forming grass species (native or non-native) with some shelters (crevices, rocks, logs) and have small patches of native temperate grassland or grassy woodland on the site.

2/3 = Satisfactory - These sites support predominately (>10-25%) tussock-forming grass species (native or non-native) with ample shelters (crevices, rocks, logs) and are located within native temperate grassland or grassy woodland.

3/3 = Good - These sites support predominately (>25%) tussock-forming grass species (native or non-native) and have ample shelters (crevices, rocks, logs) located within native temperate grassland or grassy woodland.

Species Stocking Rate

Striped Legless Lizard is a cryptic species and has the potential to go undetected despite presence at a site, even with suitable survey methods outlined by the survey guidelines. Recapture rates can be very low and therefore cannot be a true representation of the size of a population (Smith & Robertson 1999). Density within populations is highly variable and has been reported ranging from 10-40 individuals per hectare (ARAZPA 1996). The scoring of stocking rate set contributes a potential 3 points out of the overall total of 10 points.

Furthermore, very little is known about the movement patterns of the SLL. Most movements are recorded during November and December which is likely linked to reproductive activity (Kutt 1992). Studies in Victoria's Keilor Plains have suggested that SLL have relatively small home ranges with recaptures occurring within 10 metres from the initial capture location (O'Shea 1996). Due to high site fidelity and low dispersal rate it is likely that breeding will occur wherever a large enough population is found, but this cannot be confirmed. From this information, we cannot include breeding success as a measure of species stocking rate.

As a result, the density of the species over a site is likely to be conservative because density determined survey results is not often representative of the true population size existing at a site. Research from O'Shea (1996) suggested that distribution of individuals across a site is not random and is often concentrated in small communities forming within available habitat. Note that the density of a population within a site must be determined on the basis of surveys undertaken in compliance with the minimum survey methods set out in the Referral guidelines for the vulnerable striped legless lizard (Australian Government 2011), noting that detection rates can only provide a relative measure of density, but such surveys are more likely to underestimate density than to overestimate it. Density is scored as follows:

0/3 = no animals recorded

1/3 = >1 - 5 individuals detected per hectare.

2/3 = Good – >5 - 10 individuals detected per hectare.

3/3 = Abundant – 10 plus individuals detected per hectare.

Based on the above parameters, the Albanvale site achieves a quality score of 5/10. This provides a derived quantum of impact measured by the EPBC Act offset calculator of 2.62.

The risk related time horizon for the offset site has been set at 20 years with the time until ecological benefit set at 10 years to match the timeframe of the OMP.

The risk of loss for the habitat without the offset is set at 10%. This is based on the existing land-use (grazing), an intensification of which could lead to a loss of cover leading to a loss in available habitat. There is a low likelihood that this area of habitat would be cleared in the next 20 years, since it is protected under national environment law. However, habitat remnants such as these are still illegally or inadvertently cleared, so there is still some residual risk of loss given that the site does not have formal protection. The proposed offset would continue to be used for grazing purposes if not protected under a legal mechanism. While Victoria's native vegetation clearing regulations offer some existing protection to the habitat within the proposed offset site, continued agricultural uses such as grazing may lead to its continued degradation.

The risk of habitat loss with offset is set at 1% because the site would be protected in perpetuity and the relatively low probability of the quality of the habitat deteriorating in the presence of active management to promote the improvement of native vegetation through active weed control works and biomass management and through the control of pest animals that are known to reduce the quality of SLL habitat. The risk is not considered zero as there is a small probability that unidentified or subtle changes to habitat quality could occur leading to a loss of the population.

These assessments are made with a relatively high degree of confidence (set at 90%) because of observations associated with protection and maintenance of areas of SLL at other sites in western Victoria. Similarly, there is a high confidence (75%) for the time to ecological benefit being achieved based on observations from similar management regimes for NTGVVP and SLL offset areas managed under Trust for Nature covenants.

The habitat quality for SLL within a typical offset site is rated at 5/10. This assessment was based on the typically broad extent of an offset site, a requirement for SLL to be recorded from that offset site, and the quality of the NTGVVP typically present. In the absence of active management, it is expected that the quality of the habitat would deteriorate over time, but not substantially as the fundamental structure of the habitat would be maintained. We have therefore set the future quality of the habitat without offset at 4/10. Active ecological management of the site is expected to maintain and improve the overall species composition of typical SLL habitat (NTGVVP). Therefore the future site quality for SLL with offset was set at 6/10.

Based on these input settings, a 14.7 hectare offset site supporting SLL would provide in excess of 100% of offset requirements as a direct offset.

The offset site selected would be protected and managed in a manner consistent with an approved OMP.

Salvage and translocation harvesting of SLL may be required on the impact site under the supervision of Brimbank Council. This work has shown that the SLL population is restricted to areas defined as NTGVVP and thus the area of habitat for the species on the site has been reduced to match that area. The impact calculator therefore calculated the total quantum of impact for the action area as 0.48 adjusted hectares.

Offset Strategy

Therefore, the offset strategy for the development at 80A & 80B Oakwood Road, Albanvale is to provide a site which concurrently provides the SLL habitat and NTGVVP offset requirements producing a 100% offset as defined by the EPBC Act offset calculator.

A site satisfying these requirements has been identified at 6060 Hamilton Highway, Cressy, Victoria, otherwise known as Chathams. Chathams was known to support a broad area of NTGVVP supporting a population of SLL. The extent of the SLL population was assessed by EHP (2018b) (Attachment 1). This assessment documented the presence of SLL from 20 tile grids scattered across the 270 hectare property from a single survey on 29 October 2018. This survey recorded 30 SLL individuals, including 19 individuals from Lot 5 and 4 individuals from the survey grids (11, 12 and 13) located within the proposed offset area.

Biosis (unpublished data) subsequently recorded 8 individuals from these three grids in November 2018 and 20 skin sloughs from grids 11 and 13 in February 2020 (Biosis 2020a) (Attachment 2).

Biosis (2020a) documents the condition and extent of NTGVVP within a 15 hectare section of this property in the south western corner of Lot 5. This assessment identified the habitat score for the NTGVVP present as 63.09/100 (Table 1 in Biosis 2020a). This site condition report is appended to this preliminary documentation (Attachment 2).

Using this data as input for the EPBC Act offset calculator results in an offset prescription of 14.0 hectares of SLL habitat and 4.2 hectares of NTGVVP.

Offset proposal

Chathams has been identified as a suitable site to provide the offset requirements, as defined by the EPBC offset calculator, for the development at 80A and 80B Oakwood Road, Albanvale. A 14 hectare portion in the south western corner of Lot 5, 6060 Hamilton Highway Cressy has been designated as the offset area.

Offset Management Plan

Biosis (2020b) provides an offset management plan for the management of the nominated offset site within Chathams (Attachment 3). It includes all the relevant details relating to how the offset site will be secured, managed and monitored. It also defines the specific environmental outcomes to be achieved from management measures.

2.6 Other approvals and conditions

The preliminary documentation must include information on any other requirements for approval or conditions that apply, or that you reasonably believe are likely to apply, to the proposed action. This must include:

- *a) A description of any approval obtained or required to be obtained from a local, state or Commonwealth agency or authority (other than an approval under the EPBC Act), including any conditions that apply to the proposed action.*
- *b) A statement identifying any additional approval that is required.*
- *c) A description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.*
- *d) A statement identifying any interaction with other approved projects under the EPBC Act, including compliance with conditions on other approved projects.*

Response

A planning permit would be issued by Brimbank City Council for removal of native vegetation when the local planning approvals process is complete. This permit is required before works can proceed.

That permit, and its associated conditions will prescribe offsets under the Victorian guidelines for the removal, destruction or lopping of native vegetation. Those offsets will not be able to be achieved concurrently with any offsets approved under the EPBC Act and will be sourced through an approved agent for the Victorian BushBroker. Panorama Investment Group will meet all conditions associated with this permit.

2.7 Social and economic

The preliminary documentation must address the economic and social impacts (both positive and negative) of the proposed action. This may include:

- *a) Details of any public consultation activities undertaken, and their outcomes.*
- *b) Projected costs and benefits of the proposed action, including the basis for estimation through cost/benefit analysis or similar studies e.g. employment opportunities expected to be generated by the project (including construction and operational phases).*

Social and economic impacts must be considered at the local, regional and national level.

Response

No public consultation has been undertaken.

In consideration of the action, the social and economic benefits of the proposal include:

- Supporting urban consolidation and increasing housing choice and diversity by promoting opportunities for higher-density housing in strategic locations in and around hubs of activity with good access to infrastructure, services, facilities, public transport and employment opportunities.
- Achieving a medium-density outcome that appropriately balances the existing character of the area with the specific policy objectives for urban consolidation to support the role of Activity Centres (such as the Brimbank Shopping Centre) as outlined in Plan Melbourne.
- Proposing medium-density housing in an area identified by Clause 16.01-2R near employment and transport in Metropolitan Melbourne.
- Promoting economic growth and supporting strong clusters of activity and synergies between uses to service commercial and community needs. In particular, the proposal provides a medium-density residential opportunity located in close proximity to employment, retail, entertainment and commercial opportunities.
- Enhancing and improving the quality of the urban and built environment, and ensuring valued characteristics are protected, to create safe, functional places with a strong sense of connection and identity. The proposal ensures the provision of an attractive and stimulating urban environment that encourages sustainable living, recreation and public interaction while making a positive contribution to the future urban character and public realm of the surrounding context.
- Promoting ESD initiatives by achieving best-practice standards and promoting sustainable transport options and utilising existing infrastructure and making provision for new infrastructure for use by the community.

The proposed residential use is consistent with the purpose of the zone and key policy and strategic directions for the area.

The planning permit application addresses each of the aforementioned State and local policies in more depth, and further, provides a more comprehensive discussion regarding the extent the action responds to, and complements, these policies.

The proposed action is broadly consistent with the guiding principles of ESD outlined in the National Strategy for Ecologically Sustainable Development (ESDSC 1992). The proposed action will stimulate positive social and economic outcomes, while seeking to offset unavoidable environmental losses. The proposed action will result in the removal of 1.15 hectares of native vegetation that corresponds to a listed threatened ecological community and 5.23 hectares of habitat for a threatened species (SLL). However this impact is proposed to be offset by protecting approximately 15 hectares of this ecological community and SLL habitat at another location. This offset site will be secured and managed in perpetuity, and is therefore broadly consistent with the ESD principle of inter-generational equity.

2.8 Environmental record of person proposing to take the action

The information provided must include details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

a) The person proposing to take the action.
b) For an action for which a person has applied for a permit, the person making the application.

If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework should be described.

Response

There are no proceedings under Commonwealth, State or Territory law against the proponent, Panorama Investment Group.

2.9 Conclusion

The preliminary documentation must provide an overall conclusion as to the environmental acceptability of the proposal, including discussion on compliance with the principles of Ecologically Sustainable Development (section 3A) and the objects (section 3) and requirements of the EPBC Act.

You may wish to include a statement as to whether or not the controlled action should be approved and may recommend conditions pertaining to an approval. This should include justification for undertaking the proposed action in the manner proposed. The measures proposed or required by way of offset for any unavoidable impacts on MNES and the relative degree of compensation, should be restated here.

Response

The site has limited biodiversity values that are isolated in an urban context. The loss of these values is unlikely to have a significant impact on the identified MNES in a broader context.

The land is zoned for residential and commercial development, and its urban context suggests this is an appropriate and sustainable use of this land.

The proposed protection and management of the Chathams offset site will provide a secure environmental benefit for both MNES impacted by the development of 80A and 80B Oakwood Drive Albanvale. This is considered to be a measured and appropriate response to the EPBC Act and its associated offsets policy.

2.10 Information Sources

References relied upon for this preliminary documentation are outlined in the following sections with important documents also provided as attachments. The reference list includes all the relevant information relating to the currency of that information (i.e. dates). The references also include all relevant guidelines, plans and policies considered in this preliminary documentation.

No significant uncertainties are attached to these information sources and the work of other consultants is taken as reliable.

Survey information provided by EHP on the distribution of SLL within Chathams was confirmed by additional observation conducted by Biosis.

References

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Appendices

Appendix 1 EPBC Act Offset Calculations

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	Striped Legless Lizard
EPBC Act status	Vulnerable
Annual probability of extinction Based on IUCN category definitions	**0.2%**

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	No		**Area**			
			Quality			
			Total quantum of impact	0.00		
Threatened species habitat						
Area of habitat	Yes	SLL habitat	**Area**	5.23	Hectares	Habitat hassessment
			Quality	**5**	Scale 0-10	
			Total quantum of impact	2.62	Adjusted hectares	
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	Yes	Matted Flax-lily	18		Count	targeted survey

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																				
Area of community	No				**Risk-related time horizon (max. 20 years)**		**Start area (hectares)**		**Risk of loss (%) without offset**		**Risk of loss (%) with offset**									
									Future area without offset (adjusted hectares)	0.0	**Future area with offset (adjusted hectares)**	0.0								
					Time until ecological benefit		**Start quality (scale of 0-10)**		**Future quality without offset (scale of 0-10)**		**Future quality with offset (scale of 0-10)**									
Threatened species habitat																				
Area of habitat	Yes	2.62	Adjusted hectares	14	**Time over which loss is averted (max. 20 years)**	20	**Start area (hectares)**	14	**Risk of loss (%) without offset**	10%	**Risk of loss (%) with offset**	1%	1.26	90%	1.13	1.09	2.62	100.01%	Yes	
									Future area without offset (adjusted hectares)	12.6	**Future area with offset (adjusted hectares)**	13.9								
					Time until ecological benefit	10	**Start quality (scale of 0-10)**	**6**	**Future quality without offset (scale of 0-10)**	**5**	**Future quality with offset (scale of 0-10)**	**7**	2.00	75%	1.50	1.47				
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**		**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**	**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No																			
Condition of habitat Change in habitat condition, but no change in extent	No																			
Threatened species																				
Birth rate e.g. Change in nest success	No																			
Mortality rate e.g Change in number of road kills per year	No																			
Number of individuals e.g. Individual plants/animals	Yes	18	Count	60	20		60		45		75		30	80%	24.00	23.06	128.11%	Yes		

Summary

Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost ($)		
					Direct offset ($)	Other compensatory measures ($)	Total ($)
Birth rate	0				$0.00		$0.00
Mortality rate	0				$0.00		$0.00
Number of individuals	18	23.06	128.11%	**Yes**	$0.00	N/A	$0.00
Number of features	0				$0.00		$0.00
Condition of habitat	0				$0.00		$0.00
Area of habitat	2.615	2.62	100.01%	**Yes**	$0.00	N/A	$0.00
Area of community	0				$0.00		$0.00
					$0.00	**$0.00**	**$0.00**

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	NTGVVP
EPBC Act status	Critically Endangered
Annual probability of extinction Based on IUCN category definitions	**6.8%**

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator

Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Ecological communities						
Area of community	Yes	Site Assessment	**Area**	1.17	Hectares	site survey
			Quality	**3**	Scale 0-10	
			Total quantum of impact	0.35	Adjusted hectares	
Threatened species habitat						
Area of habitat	No		**Area**			
			Quality			
			Total quantum of impact	0.00		
Protected matter attributes	**Attribute relevant to case?**	**Description**	**Quantum of impact**		**Units**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
Threatened species						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator

Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)		% of impact offset	Minimum (90%) direct offset requirement met?	Cost ($ total)	Information source
Ecological Communities																					
Area of community	Yes	0.35	Adjusted hectares	4.1	**Risk-related time horizon (max. 20 years)**	20	**Start area (hectares)**	4.2	**Risk of loss (%) without offset**	10%	**Risk of loss (%) with offset**	1%	0.38	90%	0.34	0.09	0.36	101.87%	Yes		
									Future area without offset (adjusted hectares)	3.8	**Future area with offset (adjusted hectares)**	4.2									
					Time until ecological benefit	10	**Start quality (scale of 0-10)**	**6**	**Future quality without offset (scale of 0-10)**	**5**	**Future quality with offset (scale of 0-10)**	**7**	2.00	75%	1.50	0.78					
Threatened species habitat																					
Area of habitat	No				**Time over which loss is averted (max. 20 years)**		**Start area (hectares)**		**Risk of loss (%) without offset**		**Risk of loss (%) with offset**										
									Future area without offset (adjusted hectares)	0.0	**Future area with offset (adjusted hectares)**	0.0									
					Time until ecological benefit		**Start quality (scale of 0-10)**		**Future quality without offset (scale of 0-10)**		**Future quality with offset (scale of 0-10)**										
Protected matter attributes	**Attribute relevant to case?**	**Total quantum of impact**	**Units**	**Proposed offset**	**Time horizon (years)**		**Start value**		**Future value without offset**		**Future value with offset**		**Raw gain**	**Confidence in result (%)**	**Adjusted gain**	**Net present value**		**% of impact offset**	**Minimum (90%) direct offset requirement met?**	**Cost ($ total)**	**Information source**
Number of features e.g. Nest hollows, habitat trees	No																				
Condition of habitat Change in habitat condition, but no change in extent	No																				
Threatened species																					
Birth rate e.g. Change in nest success	No																				
Mortality rate e.g Change in number of road kills per year	No																				
Number of individuals e.g. Individual plants/animals	No																				

Summary

Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost ($)		
					Direct offset ($)	Other compensatory measures ($)	Total ($)
Birth rate	0				$0.00		$0.00
Mortality rate	0				$0.00		$0.00
Number of individuals	0				$0.00		$0.00
Number of features	0				$0.00		$0.00
Condition of habitat	0				$0.00		$0.00
Area of habitat	0				$0.00		$0.00
Area of community	0.351	0.36	101.87%	**Yes**	$0.00	N/A	$0.00
					$0.00	**$0.00**	**$0.00**

Attachments

Attachment 1: EHP 2018b, *Targeted Striped Legless Lizard* Delma impar *Survey within a proposed offset site, Cressy, Victoria*. Prepared for Star Pronunciation. Author A. Wong, Ecology and Heritage Partners, Ascot Vale.

Attachment 2: Biosis 2020a. Albanvale Offset Site Report: 6060 Hamilton Highway, Cressy, Striped Legless Lizard Habitat and Natural Temperate Grassland of the Victorian Volcanic Plain survey. Report for Panorama Investment (Albanvale) Pty Ltd. Author: Mueck S Biosis Pty Ltd, Melbourne. Project no. 30833.

Attachment 3: Biosis 2020b. EPBC Act referral 2018/8158 80A & 80B Oakwood Road, Albanvale: Offset Management Plan: Chathams - 6060 Hamilton Highway, Cressy. Report for Panorama Investment (Albanvale) Pty Ltd. Author: Mueck S Biosis Pty Ltd, Melbourne. Project no. 30833.