Referral of proposed action

Project title: Proposed Industrial Development, 210 Swann Drive, Mt Derrimut, Victoria

1 Summary of proposed action

1.1 **Short description**

The study area is located at 210 Swann Drive, Derrimut within an area developed for industrial land use purposes. The study area is located immediately to the south of the Western Freeway (M8) and to the east of Mt Derrimut Road. The project land parcel is located on the southern most portion of the land title adjacent to Swann Drive and other existing industrial developments, including warehouses and distribution centres occupied by ALDI, Asahi, HV Equipment and others.

1.2 **Latitude and longitude**

Longitude	Latitude
144Â° 46' 20.837""	-37Â° 48' 4.258""
144Â° 46' 20.365""	-37Â° 48' 7.804""
144Â° 46' 19.726""	-37Â° 48' 8.214""
144Â° 46' 14.768""	-37Â° 48' 7.798""
144Â° 46' 14.183""	-37Â° 48' 7.263""
144Â° 46' 14.455""	-37Â° 48' 5.212""
144Â° 46' 14.772""	-37Â° 48' 4.237""
144Â° 46' 14.903""	-37Â° 48' 3.935""
144Â° 46' 14.966""	-37Â° 48' 3.895""
144Â° 46' 15.353""	-37Â° 48' 2.993""
144Â° 46' 16.887""	-37Â° 48' 3.119""
144Â° 46' 17.473""	-37Â° 48' 3.982""

1.3 **Locality and property description**

210 Swann Drive, Derrimut. The study area is a vacant parcel of land surrounded by industrial development

1.4 **Size of the development footprint or work area (hectares)**

The size of the study area is 1.97 hectares and the entire study area is proposed to be developed (Plate 1).

1.5 **Street address of the site**

210 Swann Drive, Derrimut

1.6 **Lot description**

Certificate of Title Volume 10710 Folio 704, being Lot 75 on Plan of Subdivision 510544P

1.7 **Local Government Area and Council contact (if known)**

Wyndham City Council

1.8 **Time frame**

Estimated start date of construction is August 2016

1.9	**Alternatives to proposed action**	✔	No
1.10	**Alternative time frames etc**	✔	No
1.11	**State assessment**	✔	No

1.12	**Component of larger action**	✔	No.
1.13	**Related actions/proposals**	✔	No
1.14	**Australian Government funding**		No
1.15	**Great Barrier Reef Marine Park**	✔	No

2 Detailed description of proposed action

2.1 Description of proposed action

The proposed action will involve the development of the study area for a data centre (a facility with extensive computer banks which store data). This comprises two x two storey data halls and one x three storey tech space. Car parking is located in the site frontage, with a driveway around the perimeter of the buildings. Plant and equipment are provided throughout the site.

2.2 Alternatives to taking the proposed action

No

2.3 Alternative locations, time frames or activities that form part of the referred action

N/A

2.4 Context, planning framework and state/local government requirements

An ecological assessment was undertaken within the study area. An evaluation of the implications arising from State environmental legislation and policy associated with the proposed development, and avoidance measures to minimise potential impacts to adjacent ecological values have been provided (Ecology and Heritage Partners 2016). Identification and discussion of any matters of NES is provided in Section 3.

State

Flora and Fauna Guarantee Act 1988

The primary legislation for the protection of flora and fauna in Victoria is the *Flora and Fauna Guarantee Act 1988* (FFG Act). The Act contains protection procedures such as the listing of threatened species and/or communities of flora and fauna, and the preparation of action statements to protect the long-term viability of these values. Reference to the FFG Act would also be made with regard to FFG listed 'potential threatening processes' before the commencement of works.

A permit is required for to remove Plains Grassland vegetation, which correlates with the FFG Act community *Western (Basalt) Plains Grassland,* as well as flora belonging to the protected family Asteraceae. A application for a permit under the FFG Act will not be required given that the study area is not on public land and is privately owned.

Catchment and Land Protection Act 1994

The Catchment and Land Protection Act 1994 (CALP Act) contains provisions relating to catchment planning, land management, noxious weeds and pest animals.

In the context of this proposed action the proponent is required to take appropriate measures to prevent and/or minimise the spread of noxious weeds, including but not limited to Chilean Needle-grass *Nassella neesiana.* Given that the entire study area is proposed to be impacted (cleared again) all noxious weeds will be removed throughout the study area, thus to minimise their spread and impact on ecological values.

Planning and Environment Act 1987

In Victoria the control, use and development of land, including native vegetation removal, is managed under the *Planning and Environment Act 1987* and municipal planning schemes. Under the Victorian system each planning scheme contains State and local policy provisions as well as provisions that control the use and development of land.

The project is located within Brimbank City Council and is currently zoned Industrial 2 Zone (IZ2).

There are no overlays that cover the study area. A planning permit will be required from the Brimbank City Council to remove native vegetation for the proposed development under Clause 52.17 of the planning scheme.

Permitted Clearing of Native Vegetation: Biodiversity Assessment Guidelines

The State Planning Policy Framework, and Clauses 52.17 (Native Vegetation) and 12.01 (Environmental and Landscape values) of Victorian Planning Schemes, require Planning and Responsible Authorities to have regard for Permitted Clearing of Native Vegetation: Biodiversity Assessment Guidelines (the 'Guidelines') (DEPI 2013) when considering proposals involving native vegetation removal.

The planning permit application will be assessed under the Low-risk based pathway and any proposed removal of native vegetation is subject to the clauses and provisions of the Municipal Planning Scheme and the Guidelines.

The study area contains 0.781 hectares of remnant vegetation, including a maximum of 0.228 hectares of the NTGVVP ecological community. The removal of remnant native vegetation requires an offset of is 0.248 General Biodiversity Equivalence Units (BEU) under the state Guidelines.

Offsets can readily generated through the Over-the-Counter offset process.

2.5 Environmental impact assessments under Commonwealth, state or territory legislation

N/A

2.6 Public consultation (including with Indigenous stakeholders)

A cultural heritage assessment is currently being undertaken for the proposed development.

2.7 A staged development or component of a larger project

N/A

3 Description of environment & likely impacts

3.1 Matters of national environmental significance

3.1 (a) World Heritage Properties

Description
There are no World Heritage properties that are likely to be directly or indirectly affected by the proposed action.

Nature and extent of likely impact

N/A

3.1 (b) National Heritage Places

Description
There are no National Heritage Places that are likely to be directly or indirectly affected by the proposed action.

Nature and extent of likely impact

N/A

Description
There are no wetlands of International Importance that are likely to be directly or indirectly affected by the proposed action.

Nature and extent of likely impact

N/A

3.1 (d) Listed threatened species and ecological communities

Description
All EPBC Act-listed species and communities that are known to, or that have the potential to occur within the area are discussed here. However, only those species recorded in the study area during the ecological assessment, or those expected to be potentially impacted by the proposed action, are discussed under the subsequent section which addresses the nature and extent of the likely impact.

Nature and extent of likely impact

The consideration of potential for Matters of NES as reported by the Protected Matters Search Tool (PMST) and informed by field assessments across the study area is summarised below (Ecology and Heritage Partners Pty Ltd 2016).

Flora

The VBA and FIS contain records of nine nationally significant flora species previously recorded within 10 kilometres of the study area (DELWP 2016). The PMST nominated an additional four nationally significant species which have not been recorded in the locality but have the potential to occur (DoE 2016a). Of these species, there is suitable habitat within the study area for Spiny Rice-flower *Pimelea spinescens* subsp. *spinescens* and Large-fruit Fireweed *Senecio macrocarpus*. Spiny Rice-flower has been recorded to the immediate east of study area, as well as in nearby grasslands. Spiny Rice-flower occurs in *Themeda triandra* - *Austrostipa* spp. grassland or open shrubland on basalt-derived soils (DoE 2016).

Targeted surveys for Spiny Rice-flower were undertaken at an optimal time of year (i.e. when the species is known to be flowering and when detection is highest), and this species is not present within the study area. Surveys were undertaken in accordance with the relevant survey guidelines (DEWHA 2009a). There is a high level of confidence with the survey results given that surveys were undertaken when the species is known to be flowering, and the fact that the sparse or 'openness' of the grassland meant that individual plants would have been readily detected). Targeted were also undertaken for the Large-fruit Fireweed although this species was not detected.

Fauna

The VBA contain records of 18 nationally significant fauna species previously recorded within 10 kilometres of the study area (DELWP 2016). The PMST nominated an additional 21 nationally significant species which have not been recorded in the

locality but have the potential to occur (DoE 2016a).
Of these species, there is suitable habitat within the study area for Striped Legless Lizard, Golden Sun Moth, Tussock Skink and Fat-tailed Dunnart.

Golden Sun Moth
Golden Sun Moth (listed as Critically Endangered under the EPBC Act). The species typically occurs in native grassland, grassy woodland, dominated by greater than 40% cover of wallaby-grass (DSE 2004b), but may also inhabit areas dominated by Kangaroo Grass (Endersby and Koehler 2006) and introduced grassland dominated by Chilean Needle-grass.

There are 90 records of Golden Sun Moth within 10 kilometres of the study area, with the nearest records approximately two kilometres east and south east of the study area. There have been recent targeted surveys for the species in similar habitats directly to the west of the study area [i.e. as part of the proposed Keys drain drainage works by Melbourne Water and on the western side of Mt Derrimut Road (Ecology Australia 2014; EPBC 2014/7156). Despite surveys being undertaken over four separate occasions, during optimal survey conditions over the species' 2013/14 flight period, no individuals of the species were detected (Ecology Australia 2014).

The status of Golden Sun Moth within the study area is not known. While there is a patch of high quality grassland in the northern part of the study area, the remainder of the site contains modified grassland (recently disturbed). There is a low to moderate likelihood that a population of the species would occur or rely on habitat resources within the study area.

Striped Legless Lizard
Striped Legless Lizard (listed as Vulnerable under the EPBC Act) prefers a dense, relatively undisturbed lowland native grassland habitat, dominated by Spear-grasses Austrostipa *spp*. and Kangaroo Grass, however the species is also known to occur in areas dominated by introduced species and at sites with a history of grazing and pasture improvement (Robertson and Smith 2010, SEWPaC 2011a). Individuals shelter in grass tussocks, thick ground cover, soil cracks, spider burrows, under rocks and ground debris such as timber (Robertson and Smith 2010).

The VBA contains 414 records of Striped Legless Lizard within 10 kilometres of the study area. Ecology Australia (2014) recorded Striped Legless Lizard approximately 100 metres to the west of the study area (across Mt Derrimut Road) during targeted surveys (these records do not appear in the VBA). Mt Derrimut Road was constructed in 2002/03, and as such, the study area and the site of the known population (Ecology Australia 2014) would have represented contiguous habitat until that time.

The presence of Striped Legless Lizard within the study area is not known. There is a high likelihood that, should a population be present across the broader area (i.e. areas directly adjoining the study area), that individuals would be expected to use the higher quality Plains Grassland [i.e. Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP) supporting a high percentage cover of tussock forming grasses dominated by Kangaroo Grass, and embedded rock]. However, currently, due to recent disturbances (i.e. vegetation and soil disturbance associated with excavation), the quality of habitat across the remainder of the study area is comparatively poorer, and therefore may be used by fewer individuals (low to moderate likelihood of occurrence).

Should a resident population exist in higher quality grassland habitat adjoining the study area to the north this population is likely to meet the criteria of an important population under the 'EBPC Act Referral Guidelines for the vulnerable Striped Legless Lizard, *Delma impar*' (Table 2 in Section 6.2; SEWPaC 2011a).

The proposed development will lead to the removal of 0.228 hectares of **high** quality Striped Legless Lizard habitat (i.e. areas of NTGVVP), and a total of 1.74 hectares of **low** quality habitat (previously disturbed) comprising 0.49 hectares of modified Plains Grassland and the remaining 1.25 hectares containing exotic grassland.

Grey-Headed Flying –fox

The VBA lists two records of Grey-Headed Flying-fox within a 10 kilometre radius of the study area (Ecology and Heritage Partners Pty Ltd 2016). While Grey-Headed Flying-fox may fly over the study area on an occasional basis, this species is unlikely to make significant use of these habitats for breeding or permanent roosting purposes.

Communities

Six nationally listed ecological communities are predicted to occur within 10 kilometres of the study area (DoE 2016a), including:

- Grassy Eucalypt Woodland of the Victorian Volcanic Plain;
- Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia;
- Natural Temperate Grassland of the Victorian Volcanic Plain;
- Subtropical and Temperate Coastal Saltmarsh;
- Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains; and,
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland.

Of these, a small area (**0.228 hectares**) of EPBC Act-listed NTGVVP ecological community is present in the study area

(Ecology and Heritage Partners Pty Ltd 2016). This patch is dominated by Kangaroo Grass, with wallaby grasses occurring as a sub-dominant, with these two species comprising at least 70% of the total vegetation cover. A larger patch of NTGVVP occurs across much of the area north of the study area.

The remainder of the study area has recently been cleared and supports no other nationally listed communities (Ecology and Heritage Partners Pty Ltd 2016).

Plate 1. Ecological features within the study area.

It is important to state that the majority of the study area has been subject to past disturbance (2003), where it is apparent that it has been extensively disturbed (Plates XX-XX) (Google Earth).

Plate 2. Location of the study Area (4 May 2003) (Red study area)

Plate 3. Location of the study area (11 November 2003) (Red study area)

Plate 4. Location of the study area (14 March 2004) (Red study area)

Plate 5. Location of the study area (30 June 2009) (Red study area)

Plate 6. Location of the study Area (22 March 2016) (Red study area)

3.1 (c) Wetlands of International Importance (declared Ramsar wetlands)

3.1 (e) Listed migratory species

Description
Numerous Migratory and/or Marine species have been recorded within 10 kilometres of the study area (Ecology and Heritage Partners Pty Ltd 2016). However, the study area would not be classed as an 'important habitat' as defined under the EPBC Act Policy Statement 1.1 Principal Significant Impact Guidelines (DoE 2013).

Nature and extent of likely impact

The proposed action is not predicted to have an impact on any listed migratory species.

3.1 (f) Commonwealth marine area

Description
The proposed action is not predicted to have an impact on any Commonwealth marine area.

Nature and extent of likely impact

N/A

3.1 (g) Commonwealth land

Description
The proposed action is not predicted to have an impact on any Commonwealth land.

Nature and extent of likely impact

N/A

3.1 (h) The Great Barrier Reef Marine Park

Description
The proposed action is not predicted to have an impact on the Great Barrier Reef Marine Park.

Nature and extent of likely impact

N/A

3.1 (i) A water resource, in relation to coal seam gas development and large coal mining development

Description
The proposed action is not a coal seam gas development or large coal mining development that has, or is likely to have, a significant impact on water resources.

Nature and extent of likely impact

N/A

3.2 Nuclear actions, actions taken by the Commonwealth (or Commonwealth agency), actions taken in a Commonwealth marine area, actions taken on Commonwealth land, or actions taken in the Great Barrier Reef Marine Park

3.2 (a)	**Is the proposed action a nuclear action?**	✔	No

			Yes (provide details below)
	If yes, nature & extent of likely impact on the whole environment		
3.2 (b)	**Is the proposed action to be taken by the Commonwealth or a Commonwealth agency?**	✔	No
			Yes (provide details below)
	If yes, nature & extent of likely impact on the whole environment		
3.2 (c)	**Is the proposed action to be taken in a Commonwealth marine area?**	✔	No
			Yes (provide details below)
	If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(f))		
3.2 (d)	**Is the proposed action to be taken on Commonwealth land?**	✔	No
			Yes (provide details below)
	If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(g))		
3.2 (e)	**Is the proposed action to be taken in the Great Barrier Reef Marine Park?**	✔	No
			Yes (provide details below)
	If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(h))		

3.3 Other important features of the environment

3.3 (a) Flora and fauna

Flora

Thirty-one flora species (13 indigenous and 22 non-indigenous) were recorded within the study area during the field assessment. Of these, Slender Bindweed Convolvulus angustissimus subsp. omnigracilis, is listed as poorly known under the Advisory List of Rare or Threatened Plants in Victoria (DEPI 2014). The majority of these species are considered to be locally common and a consolidated list of flora species recorded is provided in Appendix 2.1.

Fauna

Ten fauna species were recorded within the study area during the field assessment, including: two introduced mammals and eight birds (six native, two introduced). The majority of these species are considered to be locally common and a consolidated list of fauna species recorded is provided below (Appendix 3.1). No significant fauna species were recorded during the field assessment.

A list of the flora and fauna species recorded within the study area is provided in the ecological assessment reports (Ecology and Heritage Partners Pty Ltd 2016).

3.3 (b) Hydrology, including water flows

There are no waterways of drainage lines within or adjoining the study area.

3.3 (c) Soil and Vegetation characteristics

The landform of the study area is characterised by Newer Volcanic lava flows (tholeiitic to minor alkaline and basaltic lavas), formed between the Holocene and Miocene, with corestones ('basalt floaters') often seen on the surface; these areas generally have poor drainage. However, the study area has been subject to previous disturbance, and many of the survey rock have been removed (Plates 2-6).

3.3 (d) Outstanding natural features

No outstanding natural features were recorded on the site.

3.3 (e) Remnant native vegetation

Remnant native vegetation in the study area is representative of Heavier-soils Plains Grassland (EVC 132_61). Heavier-soils Plains Grassland is listed as Endangered within the Victorian Volcanic Plain bioregion. The presence of this EVC is generally consistent with the modelled pre-1750s native vegetation mapping (DELWP 2015). The remainder of the study area comprises introduced vegetation (Figure 2).

Plains Grassland

Plains Grassland patches (**total 0.718 hectares**) of varying quality are located within the study area (Figure 2). The largest area of Plains Grassland occurs within the southern part of the study area and is defined by habitat zones PG4 (Plate 1). This habitat zone has a moderate cover (40-50%) of Common Wallaby Grass *Rytidosperma caespitosum*, with minor occurrences of Kangaroo Grass *Themeda triandra* and Kneed Spear-grass *Austrostipa bigeniculata*. Occasional occurrences of other native species are present, including Berry Saltbush *Atriplex semibaccata*, Slender Speedwell *Veronica gracilis* and Slender Bindweed *Convolvulus angustissimus* subsp. *omnigracilis*. The Weeds of National Significance (WONS) Serrated Tussock *Nassella trichotoma* and Chilean Needle-grass *Nassella neesiana* also occur within Habitat Zones PG4 and PG3b, PG3c, with a moderate cover (20%) (Ecology and Heritage Partners Pty Ltd 2016).

A large area of Plains Grassland (PG1) within the study area extends north. Habitat Zone PG1 is dominated by Kangaroo Grass with WONS Serrated Tussock and Chilean Needle-grass invading from the infestations occurring along the fence lines.

3.3 (f) Gradient (or depth range if action is to be taken in a marine area)
The study area is flat to undulating.

3.3 (g) Current state of the environment
The study area is surrounded by industrial development to the south, east and west, along with an area of native grassland to the north of the site. Within the study area weed cover ranges from moderate to high. High threat weeds included Chilean Needle-grass *Nassella neesiana* and Serrated Tussock *Nassella trichotoma* (Ecology and Heritage Partners Pty Ltd 2016.

3.3 (h) Commonwealth Heritage Places or other places recognised as having heritage values
No Commonwealth Heritage Places occur within the study area.

3.3 (i) Indigenous heritage values

There has been a previous registered aboriginal site north of the proposed development. A detailed cultural heritage assessment is currently underway for the proposed development.

3.3 (j) Other important or unique values of the environment
No important or unique values of the environment such as national parks, conservation reserves or wetlands of national significance were recorded on the site.

3.3 (k) Tenure of the action area (e.g. freehold, leasehold)
The study area is privately owned.

3.3 (l) Existing land/marine uses of area
N/A

3.3 (m) Any proposed land/marine uses of area
N/A

4 Environmental outcomes

The proposed action will lead to the loss of 0.228 hectares of NTGVVP ecological community

The proposed development will lead to the removal of 0.228 hectares of high quality Striped Legless Lizard habitat (i.e. areas of NTGVVP), and a total of 1.74 hectares of low quality habitat (previously disturbed) comprising 0.49 hectares of modified Plains Grassland and the remaining 1.25 hectares containing exotic grassland.

There is potential habitat (small area of grassland) for Golden Sun Moth, although the species hasn't previously been recorded immediately to the west of the study area during previous targeted surveys.

5 Measures to avoid or reduce impacts

The entire study area is proposed to be developed and therefore there are no specific mitigations measures that are recommended for the protection and management of ecological values within the study area. However, given that the proposed development is located to the south of an area supporting ecological values, the following measures to avoid impacts to terrestrial values directly to the north of the study area will be undertaken:

- The northern boundary of the study area will be adequately fenced (i.e. high cyclone wire fencing) to restrict any human or machinery access to the areas immediately adjoining the northern boundary of the study area.
- Signage that states that areas adjoining the study area to the north of the proposed development are designated 'no go' areas and access is prohibited will be installed.
- There will be no physical disturbance to ecological values (i.e. native grassland), including excavation and placement of spoil in areas to the north of the study area;
- All contractors will be aware of ecologically sensitive areas to the north of the study area to ensure inadvertent disturbance to these areas doesn't occur. The extent of patches of native grassland will be shown in all construction plans provided by contractors; and,
- Best practice sedimentation and pollution control measures will be undertaken at all times to prevent offsite impacts.

A Construction Environmental Management Plan will be prepared and include specific actions that expand on the points provided above to ensure areas of ecological value north of the study area are avoided.

6 Conclusion on the likelihood of significant impacts

6.1 Do you THINK your proposed action is a controlled action?

✔	No, complete section 6.2
	Yes, complete section 6.3

6.2 Proposed action IS NOT a controlled action.

Further discussions on why the proposed development is not likely to have a Significant Impact on matters of NES, including NTGVVP, Striped Legless Lizard and Golden Sun Moth are provided below (Tables 1 – 3).

Likelihood of Significant Impact to NTGVVP

The proposed action is not likely to have a significant impact to the NTGVVP ecological community given the action will result in a very small and isolated reduction in the extent of the ecological community (DoE 2013; SEWPaC 2011b). That is, a maximum **0.228 hectares** of the community is proposed to be disturbed.

Table 1. Assessment against the Significant Impact Guidelines for Endangered or Critically Endangered Ecological Communities: NTGVVP ecological community (DoE 2013; SEWPaC 2011b).

Significant Impact Guidelines 1.1 – Significant Impact Criteria for Endangered or Critically Endangered Ecological Communities (NTGVVP)	
Significant impact Criteria	**Comment**
1. Reduce the extent of an ecological community.	The proposed action will result in a minor reduction in extent of the ecological community, with the proposed removal of a maximum of 0.228 hectares of the ecological community. Due to the very small area of impact the proposed action will not have a significant impact on the ecological community. A recent EPBC Act referral decision approved the removal of 0.775 hectares of NTGVVP, with the proposal being assessed as a non-controlled action (reference number EPBC 2015/7504; Ecology and Heritage Partners Pty Ltd 2015). The ecological community cannot be avoided due to the nature of the proposed development.
2. Fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines.	The 0.228 hectare area of the ecological community occurs within a modified industrial landscape. As such, the proposed action will not result in further fragmentation of the ecological community, given that only a small area of the community is proposed for removal. The small area to be removed occurs on the southern boundary of the community, so the community will not be bisected or its ecological function significantly altered as a result of the proposed action.
3. Adversely affect habitat critical to the survival of an ecological community.	The proposed action is not likely to adversely affect the long-term survival of the ecological community.
4. Modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns.	The proposed action will result in the removal of surface soil and embedded rock within the study area to facilitate construction of the facility and associated ancillary works. Soil and rock removal will only be taken to the extent necessary to level the ground to facilitate construction of the building. Soil will not be stockpiled outside of the study area and will be reinstated as soon as possible. Given the small, localised nature of the proposed action, groundwater levels, water drainage patterns and nutrient loads are unlikely to be affected by the proposed action.
5. Cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting.	The overall functionality of the community is not likely to be affected by the proposed action. This is due to the small, localised nature of the proposed action.

Significant Impact Guidelines 1.1 – Significant Impact Criteria for Endangered or Critically Endangered Ecological Communities (NTGVVP)	
Significant impact Criteria	**Comment**
6. Cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to:	The overall quality of the ecological community is not likely to be affected by the proposed action. Appropriate management of the construction process and machinery will be used to ensure that any weed species, pollutants and/or pathogens are not inadvertently spread into areas to the north of the study area supporting the ecological community.
a. assisting invasive species, that are harmful to the listed ecological community, to become established or;	
b. causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community.	
7. Interfere with the recovery of an ecological community.	The proposed action is not likely to interfere with the ecological processes or recovery of the ecological community, due to the retention of the larger, adjacent patch of the ecological community.

Likelihood of a Significant Impact to Golden Sun Moth

The status of Golden Sun Moth within the study area is not known. While there is a patch of high quality grassland (PG1) in the northern part of the study area, the remainder of the site contains modified grassland (recently disturbed). There is a low to moderate likelihood that a population of the species would occur or rely on habitat resources within the study area.

However, the species was not detected during recent targeted surveys for Golden Sun Moth in similar habitats directly to the west of the study area [i.e. as part of the proposed Keys Drain upgrade by Melbourne Water and on the western side of Mt Derrimut Road (EPBC 2014/7156) (Ecology Australia Pty Ltd 2014).

As outlined in the Significant Impact Guidelines for the Critically Endangered Golden Sun Moth (*Synemon plana*) (DEWHA 2009b) consideration needs to be given to the types of actions that are likely to have a significant impact on a species, and that 'significant impact judgements must be made on a case by case basis and with consideration for the context of the action'. DEWHA (2009b) states that:

'The potential for a significant impact on a listed threatened species will depend on:

- *the intensity, duration, magnitude and geographic extent of the impact*
- *the sensitivity, value and quality of the environment on and around the site*
- *the cumulative effect of on-site, off-site, direct and indirect impacts, and*
- *the presence of this and other matters of NES.'*

For Golden Sun Moth, there is a real chance or possibility of a significant impact on the species if the action results in, or exceeds, the impact thresholds outlined below (Table 3) (DEWHA 2009b). An assessment against the significant impact guidelines for the species, assuming that the species occupies habitats within the study area, is provided below (Table 3).

Table 3. Assessment against the Significant Impact Guidelines for vulnerable species: Golden Sun Moth.

Significant Impact Guidelines 1.1 – Significant Impact Criteria for a Vulnerable Species (Golden Sun Moth)			
Significant Impact Criteria	**Comment**	**DEWHA 2009b**	**Current proposed action**
Large or contiguous habitat area (>10 ha)	Habitat loss, degradation or fragmentation >0.5 ha	Habitat is a similar or connected area within which the golden sun moth is found during surveys or known from records. The function of the area may include, but is not limited to: feeding, breeding, dispersal.	The study area does not form part of a larger contiguous habitat area of greater than 10 hectares.
Small or fragmented habitat area (<10 ha)	Any habitat loss, degradation or fragmentation	Small areas of habitat are more likely to suffer significant impacts from loss, degradation and fragmentation than larger areas. The limited dispersal ability of the golden sun moth means habitat areas separated by >200 m are effectively isolated and should be considered as separate habitat areas. Extremely small, isolated and degraded habitat patches (e.g. <0.25 ha) may support populations of golden sun moth but are unlikely to contribute to the overall ecological health of the species.	The proposed development will lead to the removal of 0.718 hectares of native grassland habitat and a total of 1.25 hectares of exotic grassland. Should a population exist on this site the proposed removal of 1.97 hectares of potential habitat will not lead to loss of a population in areas immediately adjoining the study area.
Habitat connectivity	Fragmentation of a population through the introduction of a barrier to dispersal	Barriers to dispersal could include: breaks in habitat of >200 metres; structures that prohibit movement (e.g. buildings, solid fences).	The proposed development will not fragment a population into two or more populations. The site is currently surrounded by a number of industrial developments.

Likelihood of a Significant Impact to Striped Legless Lizard

The proposed development will lead to the removal of 0.228 hectares of **high** quality Striped Legless Lizard habitat (i.e. areas of NTGVVP), and a total of 1.74 hectares of **low** quality habitat (previously disturbed) comprising 0.49 hectares of modified Plains Grassland and the remaining 1.25 hectares containing exotic grassland.

While it is unknown whether the study area contains a resident population of Striped Legless Lizard, the following is an assessment against the significant impact guidelines for the species assuming that the species occupies habitats within the study area (Table 2).

Table 2. Assessment against the Significant Impact Guidelines for vulnerable species: Striped Legless Lizard.

Significant Impact Guidelines 1.1 – Significant Impact Criteria for a Vulnerable Species (Striped Legless Lizard)	
Significant Impact Criteria	**Comment**
1. Disrupt the breeding cycle of an 'important population', defined as: i) key source populations either for breeding or dispersal ii) populations that are necessary for maintaining genetic diversity iii) populations that are near the limit of the species range. iv) Sites less than 0.5 hectares v) Small isolated areas of habitat which are currently under pressure, or are likely to experience long-term pressures (for example sites located within urban settings, such as adjacent to factories or in residential subdivisions)	If present, the study area is likely to support an important population of Striped Legless Lizard given that the site forms part of habitat that is greater than 0.5 hectares in size. The proposed action will result in a very small reduction in the extent of Striped Legless Lizard habitat, with the proposed removal of 0.228 hectares of high quality habitat and a total of 1.74 hectares of low quality habitat. The area to the north of the study area is greater than 0.5 hectares and (if present) is likely to support the species breeding requirements into the future, given the presence of connected high quality habitat containing high tussock cover (>70%), embedded rocks and cracking soils. Therefore, the ongoing breeding and dispersal capabilities of the population are unlikely to be affected or compromised by the proposed development given the relatively small area of habitat proposed to be removed. With the location of the site, a population would not be near the limit of the species range.
2. Lead to a long-term decrease in the size of an important population of a species	Given the small area of proposed impact, the lower quality habitat across the majority of the study area, and the availability of connected habitat to the north that is higher in quality, it is unlikely that the action will lead to a long-term decrease in the size of the population.
3. Reduce the area of occupancy of an important population	As above, the proposed action will result in a very small reduction in the extent of Striped Legless Lizard habitat, with the proposed removal of 0.228 hectares of high quality habitat and a total of 1.74 hectares of low quality habitat. However, the proposed development will not result in any further fragmentation of this habitat.
4. Fragment an existing important population into two or more populations	
5. Adversely affect habitat critical to the survival of a species	The proposed action is not likely to adversely affect habitat critical to the survival of the species. It will lead to the small loss of good quality habitat, and due to previous vegetation and embedded and surface rock removal the remainder of the site provides lower quality habitat for the species, where only a small number of individuals, if at all, are expected to use this habitat.
6. Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	Although a maximum of 0.228 hectares of high quality habitat is proposed to be removed a result of the proposed action, the extent and quality of Striped Legless Lizard habitat to the north of the study area will not be affected by the proposed action. Appropriate construction methods will ensure weeds, pollutants and/or pathogens are not inadvertently spread into areas to the north of the study area.
7. Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	The proposed action is not likely to result in the introduction of invasive species, lead to the introduction of disease, or interfere substantially with the recovery of the species.
8. Introduce disease that may cause the species to decline, or	
9. Interfere substantially with the recovery of the species.	

6.3 Proposed action IS a controlled action

	Matters likely to be impacted
	World Heritage values (sections 12 and 15A)
	National Heritage places (sections 15B and 15C)
	Wetlands of international importance (sections 16 and 17B)
	Listed threatened species and communities (sections 18 and 18A)
	Listed migratory species (sections 20 and 20A)
	Protection of the environment from nuclear actions (sections 21 and 22A)
	Commonwealth marine environment (sections 23 and 24A)
	Great Barrier Reef Marine Park (sections 24B and 24C)
	A water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E)
	Protection of the environment from actions involving Commonwealth land (sections 26 and 27A)
	Protection of the environment from Commonwealth actions (section 28)
	Commonwealth Heritage places overseas (sections 27B and 27C)

7 Environmental record of the responsible party

		Yes	No
7.1	**Does the party taking the action have a satisfactory record of responsible environmental management?** **Provide details**		✔
7.2	**Has either (a) the party proposing to take the action, or (b) if a permit has been applied for in relation to the action, the person making the application - ever been subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources?** **If yes, provide details**		✔
7.3	**If the party taking the action is a corporation, will the action be taken in accordance with the corporation's environmental policy and planning framework?** **If yes, provide details of environmental policy and planning framework** A customised Construction Environmental Management Plan (CEMP) will be developed for the site which reflects the Company's care and consideration for the environment and the specific measures to be followed to ensure a minimum impact to the area (particularly adjacent areas).		✔
7.4	**Has the party taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?** **Provide name of proposal and EPBC reference number (if known)**		✔

8 Information sources and attachments

(**Please note**: the references cited in Section 8.1 are for the information provided in this referral only. Additional references are cited in the ecological report accompanying the referral [Ecology and Heritage Partners Pty Ltd 2016]).

8.1 References

DELWP 2016d. Victorian Biodiversity Atlas. Sourced from: "VBA_FLORA25", "VBA_FLORA100", "VBA_FAUNA25", "VBA_FAUNA100", June 2015. Victorian Department of Environment, Land, Water and Planning.

DEPI 2013. Permitted clearing of native vegetation biodiversity assessment guidelines. East Melbourne, Victoria: Department of Environment of Primary Industries. *

DEWHA 2009a. EPBC Act Policy Statement 3.11 - Significant Impact Guidelines for the Critically Endangered Spiny Rice-flower (*Pimelea spinescens* subsp. *spinescens*). [Online]. Available from: https://www.environment.gov.au/system/files/resources/431ef46a-27ac-43d8-9311-d63764d63e43/files/spiny-rice-flower.pdf. Department of Environment, Water, Heritage and the Arts, Canberra. *

DEWHA 2009b. EPBC Act Policy Statement 3.12. Significant Impact Guidelines for the Critically Endangered Golden Sun Moth (*Synemon plana*). [Online]. Available from: https://www.environment.gov.au/resource/significant-impact-guidelines-critically-endangered-golden-sun-moth-synemon-plana. Department of Environment, Water, Heritage and the Arts, Canberra. *

DSE 2004. Action Statement No. 106: Golden Sun Moth *Synemon plana*. East Melbourne, Victoria: Department of Sustainability and Environment. Pp 7. *

DoE 2013. Significant Impact Guidelines 1.1. Matters of National Environmental Significance. Federal Department of the Environment, Water, Heritage and the Arts, Canberra. *

DoE 2016. Protected Matters Search Tool: Interactive Map [WWW Document]. URL http://www.environment.gov.au/arcgis-framework/apps/pmst/pmst.jsf (accessed 07/10/15). Federal Department of the Environment, Canberra. *

Ecology and Heritage Partners Pty Ltd 2015. EPBC Act Referral: Residential Development, 99A Furlong Road Cairnlea Victoria (EPBC 2015/7504). *

Ecology and Heritage Partners 2016. Biodiversity Assessment, 210 Swann Drive, Derrimut, Victoria. Unpublished report prepared for PMB Planning Pty Ltd.

Ecology Australia 2014, Mt Derrimut Rd, Derrimut, Kayes Drain Drainage Works: Flora, Fauna & Habitat Hectare Assessment, and Targeted Surveys. Prepared for Melbourne Water Corporation. Ecology Australia Pty Ltd, Fairfield, Victoria. *

Robertson, P. and W. Smith 2010. National recovery plan for the Striped Legless Lizard Delma impar. East Melbourne, Victoria: Department of Sustainability and Environment. Pp 54. *

SEWPaC 2011a. Environment Protection and Biodiversity Conservation Act 1999: Referral guidelines for the vulnerable Striped Legless Lizard, *Delma impar*. Department of Sustainability, Environment, Water, Population and Communities, Canberra, ACT. *

SEWPaC 2011b. Nationally Threatened Ecological Communities of the Victorian Volcanic Plain: Natural Temperate Grassland & Grassy Eucalypt Woodland. Department of Sustainability, Environment, Water, Population and Communities. *

Notes: (*) Denotes publicly available documents.

8.2 Reliability and date of information

Data and information held within the ecological databases and mapping programs reviewed in the desktop assessment (e.g. Victorian Biodiversity Atlas 2016, Protected Matters Search Tool 2016; Section 8.1) are unlikely to represent all flora and fauna observations within and surrounding the study area. It is therefore important to acknowledge that a lack of documented records does not necessarily indicate that a species or community is absent, rather it may reflect a lack of previous survey effort or data confirmation.

A recent assessment was conducted to review published ecological data, as well as all documents, literature, legislation and policies relevant to the proposed action and the study area and to provide background information prior to conducting the field assessment. The results of the desktop assessment were verified by field assessments on 20 April, 10 and 11 May 2016.

The seasonal constraints did not significantly impede the identification of native and non-native vegetation or the determination of native vegetation extent and percentage cover required to inform the multiple field assessments.
Targeted surveys for Spiny Rice-flower were undertaken during an appropriate time of year, when the species was known to be flowering at other sites, and were undertaken in accordance with the relevant survey guidelines (DEWHA 2009b).

While targeted surveys for Striped Legless Lizard and Golden Sun Moth were not conducted, information pertaining to recent survey results and known habitat requirements for these species (and subsequent likely use of the study area) has been used to complete an assessment of the likely impacts against the relevant EPBC Act significant impact thresholds.

8.3 Attachments

		✓ attached	Title of attachment(s)
You must attach	figures, maps or aerial photographs showing the project locality (section 1)	✓	Ecology and Heritage Partners 2016. Biodiversity Assessment, 210 Swann Drive, Derrimut, Victoria. Unpublished report prepared for PMB Planning Pty Ltd
	GIS file delineating the boundary of the referral area (section 1)		
	figures, maps or aerial photographs showing the location of the project in respect to any matters of national environmental significance or important features of the environments (section 3)	✓	
If relevant, attach	copies of any state or local government approvals and consent conditions (section 2.5)	N/A	
	copies of any completed assessments to meet state or local government approvals and outcomes of public consultations, if available (section 2.6)	N/A	
	copies of any flora and fauna investigations and surveys (section 3)	✓	Ecology and Heritage Partners 2016. Biodiversity Assessment, 210 Swann Drive, Derrimut, Victoria. Unpublished report prepared for PMB Planning Pty Ltd
	technical reports relevant to the assessment of impacts on protected matters that support the arguments and conclusions in the referral (section 3 and 4)	✓	As above.
	report(s) on any public consultations undertaken, including with Indigenous stakeholders (section 3)	N/A	

9 Contacts, signatures and declarations

Project title:

9.1 Person proposing to take action

1. Name and Title:	Michael Juniper - Chief Commercial Officer
2. Organisation:	Air Trunk Pty Ltd
3. EPBC Referral Number:	
4: ACN / ABN:	63 604 759 462
5. Postal address	5 Wolger Road, Mosman, Sydney, 2088
6. Telephone:	0437 043 003
7. Email:	Michael.juniper@airtrunk.com
8. Name of designated proponent (if not the same person at item 1 above:	
9. ACN/ABN of designated proponent (if not the same person named at item 1 above):	

COMPLETE THIS SECTION ONLY IF YOU QUALIFY FOR EXEMPTION FROM THE FEE(S) THAT WOULD OTHERWISE BE PAYABLE

I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

□ an individual; OR

□ a small business entity (within the meaning given by section 328-110 (other than subsection 328-119(4)) of the *Income Tax Assessment Act 1997*).

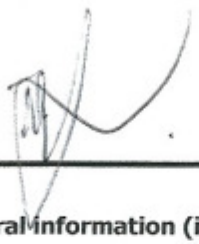
If you are small business entity you must provide the Date/Income Year that you became a small business entity:

I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations. Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made:

Declaration

I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct.
I understand that giving false or misleading information is a serious offence.

I agree to be the proponent for this action.
I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature  Date 16 May 2016

9.2 Person preparing the referral information (if different from 8.1)

Name	
Title	
Organisation	
ACN / ABN (if applicable)	
Postal address	
Telephone	
Email	
Declaration	I declare that to the best of my knowledge the information I have given on, or attached to this form is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature Date 16 May 2016