**Title of Proposal** - 99 Hallam South Road, Hallam, Victoria

# Section 1 - Summary of your proposed action

Provide a summary of your proposed action, including any consultations undertaken.

### 1.1 Project Industry Type

Commercial Development

### 1.2 Provide a detailed description of the proposed action, including all proposed activities.

The proposed development will involve the subdivision of a 2.7-hectare property at 99 Hallam South Drive, Hallam into 18 warehouse-style industrial lots ranging in size between 675 m2 and 1,510 m2, immediately north of the Ogrady Road reserve, which contains a gravel road and a table drain on its northern edge. An internal road will be constructed within the subdivision, running west off Hallam South Road a short distance north of Ogrady Road.
A 6-metre building setback will be provided between warehouses and the southern boundary and stormwater runoff will be partially diverted to an infiltration trench to be constructed within this setback to allow infiltration of runoff to recharge groundwater at this location. Stormwater will be treated by way of a waste/sediment trap before entering the infiltration trench.

### 1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.

| Area | Point | Latitude | Longitude |
|---|---|---|---|
| 99 Hallam South Road, Hallam, Victoria | 1 | -38.017759732569 | 145.26839855036 |
| 99 Hallam South Road, Hallam, Victoria | 2 | -38.018537348349 | 145.26826443991 |
| 99 Hallam South Road, Hallam, Victoria | 3 | -38.018592288282 | 145.26871505102 |
| 99 Hallam South Road, Hallam, Victoria | 4 | -38.01909519807 | 145.26859703382 |
| 99 Hallam South Road, Hallam, Victoria | 5 | -38.019255790384 | 145.26985230764 |
| 99 Hallam South Road, Hallam, Victoria | 6 | -38.018896570247 | 145.26992204508 |
| 99 Hallam South Road, Hallam, Victoria | 7 | -38.018968414415 | 145.27048530897 |
| 99 Hallam South Road, Hallam, Victoria | 8 | -38.019724886972 | 145.27030828318 |

| Area | Point | Latitude | Longitude |
|---|---|---|---|
| 99 Hallam South Road, Hallam, Victoria | 9 | -38.019775599936 | 145.27015807947 |
| 99 Hallam South Road, Hallam, Victoria | 10 | -38.019433286751 | 145.26725592932 |
| 99 Hallam South Road, Hallam, Victoria | 11 | -38.017675208617 | 145.26762070974 |
| 99 Hallam South Road, Hallam, Victoria | 12 | -38.017759732569 | 145.26839855036 |

**1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland).**

The property is approximately three hectares of private freehold land located at Hallam South Road, Hallam, some 35 kilometres south-east of Melbourne's CBD. It is bounded by Ogrady Road in the south, Hallam Road South in the east, Hallam Railway Station in the north and adjacent industrial facilities in the west and northeast.

Soil fill occupies the north-west corner of the study area. An artificial drainage line along Ogrady Road abuts the southern boundary of the study area. This eventually drains into Hallam Main Drain west of the study area. A smaller artificial drain line is situated along the western perimeter of the study area, and drains into the drain along Ogrady Road.

Vegetation in the study area is heavily dominated by introduced agricultural and environmental weed species. Remnant native vegetation is limited to occasional scattered Blackwood and Black Wattle shrubs and small remnant patches.

The study area lies within the Gippsland Plain bioregion and falls within the Poet Phillip and Westernport catchment. It is currently zoned Industrial 1 Zone (IN1Z) in the City of Casey Planning Scheme.

**1.6 What is the size of the development footprint or work area?**

2.7 hecctares

**1.7 Is the proposed action a street address or lot?**

Street Address

99 Hallam South Road
Hallam VIC 3803
Australia

**1.8 Primary Jurisdiction.**

Victoria

**1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?**

No

**1.10 Is the proposed action subject to local government planning approval?**

Yes

**1.10.1 Is there a local government area and council contact for the proposal?**

No

**1.11 Provide an estimated start and estimated end date for the proposed action.**

Start date 11/2017

End date 05/2018

**1.12 Provide details of the context, planning framework and State and/or Local government requirements.**

*State Provisions:*

*Planning and Environment Act 1987*

Victoria's planning schemes are constituted under the Planning and Environment Act 1987. Destruction, lopping or removal of native vegetation on land which, together with all contiguous land in one ownership, has an area of 0.4 hectares or more requires a planning permit under Clause 52.17 of all Victorian Planning Schemes. A planning permit under Clause 52.17 of the City of Casey Planning Scheme is required for the removal of native vegetation.

Before issuing a planning permit, Responsible Authorities are obligated to refer to Clause 12.01 (Biodiversity) in the Planning Scheme. This refers in turn to the following document and online tool, both incorporated into the Victoria Planning Provisions and all planning schemes in Victoria and administered by the Victorian Department of the Environment, Land, Water and Planning (DELWP):

- The Native Vegetation Information Management (NVIM) system; and

- Permitted clearing of native vegetation – Biodiversity assessment guidelines.

- Flora and Fauna Guarantee Act 1988

The Victorian Flora and Fauna Guarantee Act 1988 lists threatened flora and fauna species to provide for their protection and management. The FFG Act has limited direct application to private land. The removal from public land of species or communities listed under the FFG Act, including protected flora, requires a licence under the Act. This licence is obtained from DELWP.

*Local Provisions:*

*Local Planning Policy Framework (LPPF) 21.10 - Natural and Built Assets*

The objectives of this LPPF relevant to this action are:

- To protect Casey's agricultural, landscape, cultural or environmental attributes from inappropriate urban development for the future enjoyment of Casey's communities

- To maintain a healthy system of waterways that protects the diverse ecological values of the waterways and the ultimate receiving waters of Western Port and Port Phillip Bays while also minimising flooding and providing the community with the opportunity to enjoy the recreational economic benefits of well maintained safe waterways.

**1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders.**

None undertaken

**1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project.**

*Flora and Fauna Impact Assessment, Brett Lane and Associates (BL&A), 2017.*

BL&A conducted a flora and fauna field assessment of the development site in 2014 (2017 report attached in Section 3.1.1). This investigation was undertaken according to Victoria's Biodiversity assessment guidelines and also addresses any potential impacts on matters listed under the state Flora and Fauna Guarantee Act 1988 (FFG Act) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The investigation identified that Eastern Dwarf Galaxias (Galaxiella pusilla), listed under the EPBC and FFG Acts, have been previously recorded in a drain that abuts the southern boundary of the development site in the Ogrady Road roadside reserve. Mitigation measures were recommended to ensure that the proposed development did not adversely affect the habitat in this drain.

Other listed matters under the EPBC and FFG Acts are discussed further in Section 3.1. No other FFG Act or EPBC Act listed flora, fauna or communities were identified as being potentially impacted by the development.

This assessment mapped 0.313 hectares of native vegetation in the form of Swampy Riparian Woodland (EVC 83) in the south-west corner of the study area and a patch of Swamp Scrub (EVC 53) along the southern perimeter, as well as one small scattered indigenous tree.

Although a small section of Swamp Scrub on the southern perimeter is to be retained for habitat purposes, under Victorian permitted clearing regulations it was determined that the project would result in the effective loss of all native vegetation on the property.

**1.15 Is this action part of a staged development (or a component of a larger project)?**

No

**1.16 Is the proposed action related to other actions or proposals in the region?**

No

# Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The interactive map tool can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

• Profiles of relevant species/communities (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;

• Significant Impact Guidelines 1.1 – Matters of National Environmental Significance;

• Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies.

**2.1 Is the proposed action likely to impact on the values of any World Heritage properties?**

No

**2.2 Is the proposed action likely to impact on the values of any National Heritage places?**

No

**2.3 Is the proposed action likely to impact on the ecological character of a Ramsar wetland?**

No

**2.4 Is the proposed action likely to impact on the members of any listed threatened species (except a conservation dependent species) or any threatened ecological community, or their habitat?**

No

**2.5 Is the proposed action likely to impact on the members of any listed migratory species, or their habitat?**

Yes

### 2.5.1 Impact table

| Species | Impact |
|---|---|
| Latham's Snipe | Removal of small area of marginal habitat –impacts to an important population unlikely. |
| White-throated Needletail | Aerial species – unlikely to be impacted. |

### 2.5.2 Do you consider this impact to be significant?

No

### 2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

No

### 2.7 Is the proposed action likely to impact on any part of the environment in the Commonwealth land?

No

### 2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

No

### 2.9 Will there be any impact on a water resource related to coal / gas / mining?

No

### 2.10 Is the proposed action a nuclear action?

No

### 2.11 Is the proposed action to be taken by the Commonwealth agency?

No

### 2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place Overseas?

No

### 2.13 Is the proposed action likely to impact on any part of the environment in the Commonwealth marine area?

No

# Section 3 - Description of the project area

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

**3.1 Describe the flora and fauna relevant to the project area.**

*Flora (adapted from the BL&A 2017 assessment report)*

Vegetation in the study area is heavily dominated by introduced agricultural and environmental weed species. The more dominant of these is Toowoomba Canary-grass, Blackberry, Sweet Vernal-grass and Paspalum. Remnant native vegetation is limited to occasional scattered Blackwood and Black Wattle shrubs, seven small remnant patches of modified Swampy Riparian Woodland (EVC 83) in the south-west corner of the study area and a patch of Swamp Scrub (EVC 53) along the southern perimeter. The Swampy Riparian Woodland is dominated by Blackwood and Black Wattle, and the Swamp Scrub is dominated by Swamp Paperbark.

VBA records (VBA 2013) and the EPBC Protected Matters Search Tool (Department of the Environment 2013) indicated that within the search region there were records of, or there occurred potential suitable habitat for, eight species listed under the Commonwealth EPBC Act and eight listed under the state *Flora and Fauna Guarantee Act 1988* (FFG Act), including six listed under both Acts. No flora species listed under these Acts were recorded during the field survey and none were considered likely to occur based on an analysis of habitat suitability (see table below).

*Fauna (adapted from the BL&A 2017 assessment report)*

During the field assessment 25 fauna species were recorded. This included 21 bird (five introduced), two mammal (both introduced), one reptile and two frog species.

The review of existing information indicated that at least 39 fauna species listed under the FFG Act and the EPBC Act have previously been recorded within the search region (10 kilometre radius of the site) since 1980, or for which potential habitat occurs according to the EPBC Act Protected Matters Search Tool.

The potential occurrence of these species in the study area was assessed and the results are presented in the table below.

Species considered ‘likely to occur’ are those that have a very high chance of being in the study area given the existence of numerous records in the search region and suitable habitat in the study area. Using the precautionary approach, species considered to have the ‘potential to occur’ are those where suitable habitat exists, but recent records are scarce.

The analysis of potential occurrence found that the following five (5) species were considered to have some potential to occur. The likelihood of significant impacts to these species from the development as defined under the EPBC Act is explored in detail in the flora and fauna assessment and summarised below.

*Latham's Snipe (EPBC Act: Migratory (JAMBA, CAMBA, ROKAMBA, Bonn A2H))*

This species occurs in wide variety of permanent and ephemeral wetlands; it prefers open freshwater wetlands with dense cover nearby, such as the edges of rivers and creeks, bogs, swamps, waterholes.

Fifteen individuals were recorded in the study area during the field survey in habitat that was considered marginal for the species. This number is not considered to represent part of an ‘important population’ under the EPBC Act (> 360 individuals) and therefore any proposed development would not represent a significant impact on the species under the Act’s guidelines.

*White-throated Needletail (EPBC Act: Migratory (JAMBA, CAMBA, ROKAMBA))*

This is an aerial summer migrant, occurring over all habitats, but probably more over wooded areas, including open forest and rainforest. Often over heathland, and less often above treeless areas such as grassland and swamps or farmland. Although this species many occasionally forage above the study area, the study area does not constitute important habitat for the species.

For this reason, the proposed development is unlikely to have a significant impact on White-throated Needletail.

*Grey-headed Flying-fox (EPBC Act: vulnerable, FFG Act listed)*

Grey-headed Flying-fox roost in riverine habitat in Melbourne and forage widely in flowering eucalypts and fruit trees. Although this species is likely to occasionally fly over the study area to forage in nearby suburban gardens and bushland, the habitat in the study area offers few resources for it.

Therefore, the proposed development is unlikely to have a significant impact on Grey-headed Flying-fox.

*Growling Grass Frog (EPBC Act: vulnerable, FFG Act listed)*

Growling Grass Frogs inhabit permanent, still or slow flowing water with fringing and emergent vegetation in streams, swamps, lagoons and artificial wetlands such as farm dams and abandoned quarries.  Vegetation surrounding these aquatic habitats is generally open and lacking in shrub and tree cover.

Aquatic habitat occurs in the drain along Ogrady Road, immediately south of the site; however, it is not considered to be suitable breeding habitat for the species given the level of shading

provided by Swamp Paperbark on the northern side of the drain. An analysis of relevant literature on the species indicates that the habitat is of marginal suitability for the species. Notwithstanding this, it could potentially be used as a dispersal corridor for Growling Grass Frog if nearby metapopulations occur.

Since 1980, the Victorian Biodiversity Atlas shows there have been only five records of this species in the 10-kilometre search region.

The most recent of these were in 1999 (two records) from Lysterfield Park, occurring approximately 6 kilometres north of the site and separated from the site by a large area of residential and industrial development and both the Monash Freeway and the Princes Highway. Lysterfield Park is managed by Parks Victoria for the Department of Environment, Land, Water and Planning and as such is subject to regular monitoring. The third and fourth records from this park were in 1981 and 1989. Whilst it is possible that a breeding population of the species may persist in Lysterfield Park, no contiguous open water channels or creeks connect the Ogrady Road drain with the park.

The fifth record was in 1994 from the Dandenong Police Paddocks Reserve, also managed by Parks Victoria, approximately 8.5 kilometres northwest of the site. This reserve is also separated from the site by residential and industrial developments, as well as the Monash Freeway and the Princes Highway. Again, whilst it is possible that a breeding population of the species may persist in this reserve, no contiguous open water channels or creeks connect the Ogrady Road drain with the Dandenong Police Paddocks Reserve.

Given the paucity of records from the 10-kilometre search region and the lack of habitat connectivity between locations of past records and the site, it is considered that there are no nearby metapopulations in the region in habitat connected to the drain. Therefore, there is a very low likelihood that Growling Grass Frog would use the Ogrady Road drain as a dispersal corridor.

The proposed development will implement mitigation measures to achieve a no-net-change to the aquatic habitat in the Ogrady Road drain. Therefore, in the unlikely event that the drain is used as a dispersal corridor for Growling Grass Frog, the proposed development is unlikely to impact the species by compromising its capacity to use the corridor.

*Eastern Dwarf Galaxias (EPBC Act: vulnerable, FFG Act: listed)*

Eastern Dwarf Galaxias occur in near-coastal areas from the Barwon River to the Mitchell River. They occur in vegetated margins of still water, ditches, swamps and backwaters of creeks, both ephemeral and permanent.

As there are numerous recent records of this species in the search region (136 records between 1980 and 2010), and it has been documented as resident in the drainage channel along Ogrady Road (southern perimeter of study are) as recently as 2009, it is currently considered to be resident there.

The proposed development will provide for the retention of the treed habitat fringing the

drainage line along Ogrady Road and will make provision for the protection of this aquatic habitat through threatened species impact mitigation. For these reasons the proposed development is unlikely to have a significant impact on the species.

(see also attached Flora and Fauna Assessment report attached under Section 2.14)

**3.2 Describe the hydrology relevant to the project area (including water flows).**

*Stormwater run-off and flood management (adapted from the Alluvium SWMS July 2015)*

The subject site is located within the Hallam Valley Contour Drain (HVCD) catchment and has a direct interface to the northern side of the Hallam Valley Floodplain. The HVCD utilises a levee on its northern bank to protect properties (and the subject site) north of the drain from deep flooding.

The property at 99 Hallam South Road is located at the upstream end of the subcatchment, due to the existing railway line to the north that diverts flows away from the area. The subject site therefore has very little external areas that currently drain through it, apart from the gap flow (ie rainfall events greater than a 10 year ARI) from the small industrial development to the north/east of the site (ie 2.3 hectares).

Flows from the subject site currently drain to the swale/table drain in Ogrady Road, which flows west to the point of outfall about 670 metres downstream. The capacity of the road drain is very limited due to extensive vegetation, therefore it is expected that water will readily flow over the road and into the southern floodplain. An existing 1950mm pipe is located near the southern eastern [corner of the site].

*Groundwater (adapted from the CDM Smith Groundwater Assessment 2017)*

The existing information reviewed indicates that groundwater in this area is very shallow and within 5 metres of the ground surface. 2011 measurements for shallow bores in the Dandenong South area indicate groundwater could be as shallow as 1 metre below the surface.

The site is located adjacent the Hallam main drain, and several wetlands that are considered to be connected to the water table, because the region’s depth to water table is very shallow, and a drain incised into the landscape can create a depression into which groundwater is able to flow. Groundwater discharge to the drain is partly a function of the drain intersecting the water table surface, such that groundwater freely drains into the drain.

This investigation has provided a better understanding of nature of groundwater inflows to [the] open swale drain that extends to the west along the site’s south boundary located on the north side of Ogrady Road. The proposed site development has the potential to locally reduce recharge to the water table, which has the potential to reduce groundwater discharging to the Ogrady Road drain.  The extent to which this occurs was assessed by:

- Considering the current (conceptualised) nature of groundwater discharge within the vicinity of the drain; and

- An assessment of the potential effects of development of the site on groundwater discharge to the drain, using a simple numerical groundwater flow model (MODFLOW).

A proposed retention swale will act as an infiltration trench to the shallow water table and generate groundwater inflow to the drain. This will maintain groundwater discharge to the drain and replace and recharge to the groundwater system that which may have been reduced by the development of the site.

If the volume of infiltration from the retention swale is on average equivalent to 20 mm/yr of recharge across the site (540 m3 per year across 2.7 hectares), the impact of the development to the groundwater flow to the drain will be mitigated.

**3.3 Describe the soil and vegetation characteristics relevant to the project area.**

*Soils (from the March 2017 Cardno report and May 2017 Cardno letter)*

The study area consists of Quaternary aged swamp deposit clays and peaty clays, overlying sands and sandy clays of the Tertiary aged Baxter Sandstone.

The geotechnical investigation identified that the subsurface profile at the location of a proposed infiltration trench near the southern boundary consists of fill (clayey silt and sandy clay) overlying silty clay. Five boreholes were dug along the length of the proposed trench and tested for infiltration rates. The median infiltration rate across these boreholes was found to be 364 mm/year.

An analysis of rainfall data, trench dimensions and infiltration rates identified that the indicative average annual infiltration volume from the proposed infiltration trench is approximately 600 m3/yr.

*Vegetation (from the 2017 BL&A report)*

The majority of the study area is dominated by introduced agricultural and environmental weed species. Seven small remnant patches of remnant native vegetation were recorded, totalling 0.313 hectares in area. These patches were assessed using the habitat hectare assessment method and found to comprising modified forms of Swampy Riparian Woodland (EVC 83) in the south-west corner of the study area and a patch of Swamp Scrub (EVC 53) along the southern perimeter and associated with an adjacent drain alongside Ogrady Road. One scattered tree was recorded on the boundary of the study area in the northeast.

**3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area.**

n/a

**3.5 Describe the status of native vegetation relevant to the project area.**

(*Adapted from the BL&A 2017 report*)

Swampy Riparian Woodland areas were generally of very low quality and the Swamp Scrub area was low to moderate quality. The tree canopy was generally absent and the understory condition very poor. The ground layers were dominated by introduced weed species and lacked mostly logs. Litter was moderate through most of the site.

While it is not clear what past land uses have been practiced in the study area, it was more than likely agricultural. The evident land management currently practised is a regime of wildfire mitigation biomass reduction through regular slashing of the ground vegetation layer.

**3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.**

The project area is predominantly flat, with a slight fall to the south towards the Hallam Valley Floodplain.

**3.7 Describe the current condition of the environment relevant to the project area.**

(*Adapted from the BL&A 2017 report*)

The majority of the study area is described as grassy paddock and was largely treeless, being instead dominated by introduced grasses and forbs. Individual Blackwood and Black Wattle trees and shrubs were thinly scattered throughout and some areas were infested with dense thickets of Blackberry. Large old trees with hollows were absent and fallen timber was very scarce.

Native treed vegetation comprised small scattered patches of highly degraded swampy woodland which lacked eucalypt canopy trees, and are instead dominated by Black Wattle and Blackwood trees and shrubs. The lower understoreys are generally grassy and dominated by introduced grasses and forbs, with occasional woody vegetation such as Blackberry and Flax-leaf Broome. Large old trees with hollows are absent and fallen timber was very scarce.

Aquatic habitat occupied the fringes of the study area, along the southern and western perimeters. It occurred as small artificial drainage channels; somewhat deep and permanent along the southern perimeter (in the Ogrady Road reserve) and shallow and ephemeral along the western perimeter. Along the western perimeter it largely lacks woody vegetation, and is instead dominated by introduced grasses and forbs. Along the southern perimeter it is dominated by a dense stand of Swamp Paperbark with an understorey of Common Reed, bulrush and slender Knotweed.

The habitat along the western perimeter was considered to be of low quality, though habitat along the southern perimeter in the Ogrady Road reserve was considered to be of moderate quality.

The condition of Eastern Dwarf Galaxias habitat immediately adjacent to the study area was assessed as part of the BL&A (2017) field assessment. This habitat was assessed against habitat descriptions and photography provided in recent investigations of that habitat, i.e. Bloink (2009) and McGuckin (2005). Based on these parameters the current condition of the habitat was found to be consistent with these previous observations.

Beyond the study area, the vast majority of land is highly developed as industrial, commercial and residential. Immediately south of the study area (the flood plain of the Hallam Main Drain), much of the land is free of development and supports a chain of well vegetated wetlands.

In terms of habitat linkages to other habitats in the region (i.e. degree of isolation/fragmentation), the study area is poorly connected to other areas of native vegetation at both the smaller site scale and the larger regional scale.

**3.8 Describe any Commonwealth Heritage Places or other places recognised as having heritage values relevant to the project area.**

n/a

**3.9 Describe any Indigenous heritage values relevant to the project area.**

The land is subject to cultural heritage sensitivity and will require a cultural heritage management plan to be prepared and approved prior to the issue of a permit allowing development of the site.

**3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area.**

Freehold

**3.11 Describe any existing or any proposed uses relevant to the project area.**

The project area is currently disused land. It is proposed to house a warehouse-style industrial subdivision.

# Section 4 - Measures to avoid or reduce impacts

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

**4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action.**

A Threatened Species Management Plan (TSMP) has been prepared outlining measures to be undertaken to prevent significant adverse impacts on this habitat for Eastern Dwarf Galaxias. The TSMP is attached in Section 3.1.1 and summarised below.

The key objectives of the TSMP are to:

- Ensure that development of the site does not impact upon existing Eastern Dwarf Galaxias habitat in a drain immediately south of the southern boundary of the development site.

Key threats to Eastern Dwarf Galaxias and its habitat in the immediate vicinity of the development site and design elements that will mitigate potential impacts are as follows:

- Changes to hydrology: The treatment and collection of stormwater to be diverted to an infiltration trench under developed conditions will ensure there is sufficient groundwater recharge to the Ogrady Road northern drain and, therefore, no detrimental changes to the hydrology of existing Eastern Dwarf Galaxias habitat.- Direct loss of habitat: Development of the site will retain fringing vegetation along the drain and will result in no direct loss of existing aquatic habitat.- Indirect loss of habitat through shading:  A 6-metre building setback will prevent excessive shading of the drain and fringing native vegetation.- Weeds: Suitable weed monitoring and control measures will be implemented during construction and at least twice annually post construction.- Introduction of pollutants: A sediment/waste trap and infiltration trench will be incorporated into the design of the development site, and litter clean-up will be implemented to mitigate against pollutants entering Eastern Dwarf Galaxias habitat.

(See TSMP attached in previous section)

**4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved.**

*Eastern Dwarf Galaxias*

The proposed development of the site will retain the Eastern Dwarf Galaxias habitat adjacent to the project site and fringing Swamp Scrub vegetation. Building setbacks will ensure these habitats are not subject to degradation through excessive shading.

Construction environment control measures, as well as a permanent sediment/waste trap to treat stormwater and biannual litter control will mitigate against pollutants entering Eastern Dwarf Galaxias habitat adjacent to the project site.

An infiltration trench receiving stormwater from the development will ensure there are no detrimental changes to the hydrology of existing Eastern Dwarf Galaxias habitat adjacent to the project site.

Suitable weed monitoring and control measures to be implemented during construction and at least twice annually post construction will mitigate against the degradation of existing Eastern Dwarf Galaxias habitat adjacent to the project site.

Water quality monitoring in the drain adjacent to the project site, both pre-construction and for two (2) years post construction, will allow an assessment of the efficacy of mitigation measures and provide triggers for corrective actions.

(See TSMP attached in previous section)

# Section 5 – Conclusion on the likelihood of significant impacts

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

### 5.1.1 World Heritage Properties

No

### 5.1.2 National Heritage Places

No

### 5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)

No

### 5.1.4 Listed threatened species or any threatened ecological community

No

### 5.1.5 Listed migratory species

No

### 5.1.6 Commonwealth marine environment

No

### 5.1.7 Protection of the environment from actions involving Commonwealth land

No

### 5.1.8 Great Barrier Reef Marine Park

No

### 5.1.9 A water resource, in relation to coal/gas/mining

No

### 5.1.10 Protection of the environment from nuclear actions

No

### 5.1.11 Protection of the environment from Commonwealth actions

No

### 5.1.12 Commonwealth Heritage places overseas

No

### 5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action.

*Latham's Snipe (EPBC Act: Migratory (JAMBA, CAMBA, ROKAMBA, Bonn A2H))*

Fifteen individuals were recorded in the study area during the field survey in habitat that was considered marginal for the species. This number is not considered to represent part of an 'important population' under the EPBC Act (> 360 individuals) and therefore any proposed development would not represent a significant impact on the species under the EPBC Act significant impact guidelines.

*White-throated Needletail (EPBC Act: Migratory (JAMBA, CAMBA, ROKAMBA))*

Although this species many occasionally forage above the study area, the study area does not constitute important habitat for the species. For this reason, the proposed development is unlikely to have a significant impact on White-throated Needletail.

*Grey-headed Flying-fox (EPBC Act: vulnerable)*

Although this species is likely to occasionally fly over the study area to forage in nearby suburban gardens and bushland, the habitat in the study area offers few resources for it. Therefore, the proposed development is unlikely to have a significant impact on Grey-headed Flying-fox.

*Growling Grass Frog (EPBC Act: vulnerable)*

Based on a paucity of records from the 10-kilometre search region and the lack of habitat connectivity between locations of past records and the site, it is considered that there are no nearby metapopulations in the region in habitat connected to the drain. Therefore, there is a very low likelihood that Growling Grass Frog would use the Ogrady Road drain as a dispersal corridor. The proposed development will implement mitigation measures to achieve a no-net-change to the aquatic habitat in the Ogrady Road drain. Therefore, in the unlikely event that the drain is used as a dispersal corridor for Growling Grass Frog, the proposed development is unlikely to impact the species by compromising its capacity to use the corridor.

*Eastern Dwarf Galaxias (EPBC Act: vulnerable)*

As there are numerous recent records of this species in the search region (136 records between 1980 and 2010), and it has been documented as resident in the drainage channel along Ogrady Road (southern perimeter of study are) as recently as 2009, it is currently considered to be resident there. The proposed development will provide for the retention of the treed habitat fringing the drainage line along Ogrady Road and will make provision for the protection of this aquatic habitat through threatened species impact mitigation. For these reasons the proposed development is unlikely to have a significant impact on the species.

# Section 6 – Environmental record of the person proposing to take the action

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

**6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Please explain in further detail.**

The proponent Asphalt Roads P/L was established in 1980 by the late Ron Rado who was an experienced civil contractor, materials supplier, and property developer.

Agnes Crawford Rado and Gerard Damian Keeghan are the nominated Directors of Asphalt Roads P/L, a 100% subsidiary of Cortek Developments P/L, part of what is now known as TPC Group. TPC Group has completed more than 100 property developments, delivering more than 9,000 residential allotments and 280 industrial allotments over the past 30 years on the Eastern seaboard of Australia, principally in green field sites.

Further, Agnes Rado has since 1978 been a founding shareholder and Director of Gumbuya Park, a privately owned 430 Ha flora and fauna reserve in Tynong, Victoria, and Gerard Keeghan joined that organisation in 1982 as its General Manager. Together they have worked together for 35 years

In the collective history of these Directors and shareholders, there has never been any notice served for an environmental warning, or any stop work notice connected with the environment or any environmental breach or rectification notice issued or demanded or forced by any local, State or Federal body. There are no pending environmental matters or any likely environmental issues foreseen on any past or current project.

The Directors and Shareholders have full confidence that they and their considered and experienced consultants and contractors will produce and deliver relevant environmental management plans, policies and procedures for the development of Hallam South Rd at Hallam to meet and exceed all Local, State and Federal Government requirements and continue to uphold their unblemished record in property developments.

**6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application.**

None

**6.3 Will the action be taken in accordance with the corporation's environmental policy and planning framework?**

No

**6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?**

Yes

**6.4.1 EPBC Act No and/or Name of Proposal.**

Yes. In a 288 lots subdivision at the corner of Foxwell and Amity Roads Coomera, Queensland in 2015, owned by Chauffer P/L where tree clearing was referred by our Consultants, Saunders Havill Group under the Act. The works were approved within a month without additional conditions.

# Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

### 7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

| Reference Source | Reliability | Uncertainties |
|---|---|---|
| Contained in technical reports | See technical reports | See technical reports |

# Section 8 – Proposed alternatives

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

**8.0 Provide a description of the feasible alternative?**

No feasible alternatives are identified for the project site.

**8.1 Select the relevant alternatives related to your proposed action.**

**8.27 Do you have another alternative?**

# Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

**9.0 Is the person proposing to take the action an Organisation or an Individual?**

Organisation

**9.2 Organisation**

**9.2.1 Job Title**

CEO and Director

**9.2.2 First Name**

Ged

**9.2.3 Last Name**

Keeghan

**9.2.4 E-mail**

ged@tpcgroup.com.au

**9.2.5 Postal Address**

Level 8

420 Collins Street
Melbourne VIC 3000
Australia

**9.2.6 ABN/ACN**

ABN

33005374247 - ASPHALT ROADS PTY. LTD.

**9.2.7 Organisation Telephone**

03 9605 5800

**9.2.8 Organisation E-mail**

ged@tpcgroup.com.au

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

Not applicable

**Small Business Declaration**

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

Signature:..... Date: .....

**9.2.9.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations**

No

**9.2.9.3 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**

**Person proposing the action - Declaration**

I, GED (GERARD) KEEGHAN, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature:..... Date: 08/06/17

I, GED (GERARD) KEEGHAN, the person proposing the action, consent to the designation of myself as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature:..... Date: 08/06/17

**9.3 Is the Proposed Designated Proponent an Organisation or Individual?**

Organisation

**9.5 Organisation**

**9.5.1 Job Title**

CEO and Director

**9.5.2 First Name**

Ged

**9.5.3 Last Name**

Keeghan

**9.5.4 E-mail**

ged@tpcgroup.com.au

**9.5.5 Postal Address**

Level 8

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**9.5.6 ABN/ACN**

ABN

33005374247 - ASPHALT ROADS PTY. LTD.

**9.5.7 Organisation Telephone**

03 9605 5800

**9.5.8 Organisation E-mail**

ged@tpcgroup.com.au

**Proposed designated proponent - Declaration**

I, GED (GERARD) KEEGHAN, the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.

Signature:..... Date: 08/06/17

**9.6 Is the Referring Party an Organisation or Individual?**

Organisation

**9.8 Organisation**

**9.8.1 Job Title**

CEO and Director

**9.8.2 First Name**

Ged

**9.8.3 Last Name**

Keeghan

**9.8.4 E-mail**

ged@tpcgroup.com.au

**9.8.5 Postal Address**

Level 8

420 Collins Street
Melbourne VIC 3000
Australia

**9.8.6 ABN/ACN**

ABN

33005374247 - ASPHALT ROADS PTY. LTD.

**9.8.7 Organisation Telephone**

03 9605 5800

### 9.8.8 Organisation E-mail

ged@tpcgroup.com.au

### Referring Party - Declaration

I, GED (GERARD) KEEGHAN, I declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature:..... Date: 08/06/17