Title of Proposal - Clearing for vehicle access and residential development, Lots 120-121 Minninup Road, Dalyellup WA

Section 1 - Summary of your proposed action

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

1.1 Project Industry Type

Residential Development

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

Geographe Property Pty Ltd (being a sub-entity of Cedar Woods Properties) is proposing to develop Lots 120 and 121 Minninup Road, Dalyellup based on 1 ha rural residential lots (49.5 ha). In addition, the proposal includes construction and extension of Minninup Road (5 ha), adjoining the western boundary of Lots 120 and 121, to Harewoods Road in the north to address Western Australian statutory planning bushfire requirements for vehicle access. The total proposed action area is therefore 54.5 ha.

The proposed action includes the clearing of 2.9 ha of vegetation that is potential black cockatoo foraging habitat and potential nesting habitat trees (Tuart and Marri trees >500mm DBH) and potential Western Ringtail Possum supporting habitat. The clearing may also impact an area that may have the potential to be described as Tuart Woodland, currently subject to proposed listing as a Threatened Ecological Community (TEC).

No observable tree hollows or dreys were recorded. Native vegetation within the project area was assessed as ‘Degraded – Completely Degraded’ condition. The remaining 51.6 ha does not support native vegetation and therefore no related impacts to native vegetation or fauna habitat will result from the development.

Figure 1 details the site location and existing lot layout. Figure 2 details the proposed development layout and native vegetation clearing footprint.

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
Lot 120-121 Minninup Road and unconstructed road reserve	1	-33.431892213081	115.60433968864

Area	Point	Latitude	Longitude
Lot 120-121 Minninup Road and unconstructed road reserve	2	-33.431856398445	115.60416802727
Lot 120-121 Minninup Road and unconstructed road reserve	3	-33.423009730818	115.60936078392
Lot 120-121 Minninup Road and unconstructed road reserve	4	-33.417171152716	115.61146363579
Lot 120-121 Minninup Road and unconstructed road reserve	5	-33.40939771034	115.61142072044
Lot 120-121 Minninup Road and unconstructed road reserve	6	-33.409505181998	115.6117640432
Lot 120-121 Minninup Road and unconstructed road reserve	7	-33.41720697341	115.61167821251
Lot 120-121 Minninup Road and unconstructed road reserve	8	-33.423153003873	115.6095324453
Lot 120-121 Minninup Road and unconstructed road reserve	9	-33.423976819349	115.60991868339
Lot 120-121 Minninup Road and unconstructed road reserve	10	-33.424764809446	115.61481103264
Lot 120-121 Minninup Road and unconstructed road reserve	11	-33.430853582649	115.61146363579
Lot 120-121 Minninup Road and unconstructed road reserve	12	-33.432178729633	115.60815915428
Lot 120-121 Minninup Road and	13	-33.431892213081	115.60433968864

Area	Point	Latitude	Longitude
unconstructed road reserve			

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).

Lots 120 and 121 Minninup Road, Dalyellup are located approximately 11 km south of Bunbury. They are surrounded by Five Mile Brook Diversion Drain (FMBDD) and rural residential development to the south, cleared rural land to the southwest, areas of partially vegetated Regional Open Space (ROS) within rural land to the west and north, areas of vegetated ROS within Shire Reserve 23000 and FMBDD to the east and an unconstructed road reserve to the west and northwest. Figure 1 details the site location.

Lot 121 currently contains a dwelling, a number of outbuildings associated with a winery, scattered pockets of native and planted vegetation, and an access easement to Minninup Road to the southwest. Lot 120 currently consists of 19 strata lots of approximately 2 ha in size, which are predominantly cleared. An unconstructed road reserve is located adjacent to the western boundary of the lots and extends north to existing urban development within the suburb of Dalyellup.

The site has been extensively cleared to incorporate previous rural land uses and there is little remnant vegetation within the site. The unconstructed road reserve adjoining the western boundary of the site has also been significantly modified.

The proposed action will impact 2.9 ha of native vegetation. This vegetation has been surveyed to determine the flora and fauna values it represents. The Strategen (2018a) survey recorded one remnant vegetation type within the project area, being Eucalyptus gomphocephala and scattered Agonis flexuosa isolated clumps of trees over weedy grassland (Ehrharta calycina). This vegetation was assessed as being in ‘Degraded – Completely Degraded’ condition.

A reconnaissance fauna survey observed (or positively identified from scats, tracks, skeletons or calls) a total of nine fauna species. This total included one reptile, seven birds and one mammal. The proposed action area includes potential foraging habitat and nesting habitat trees (Tuart and Marri trees >500mm DBH) for black cockatoos and foraging habitat for Western Ringtail Possum (isolated peppermint trees) that is in ‘Degraded’ condition.

1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?

The proposed action area is 54.5 ha. Within this proposed action area, 2.9 ha of native vegetation will be impacted.

1.7 Is the proposed action a street address or lot?

Lot

1.7.2 Describe the lot number and title. Lot 120 and Lot 121 Minninup Road, Dalyellup, Western Australia

1.8 Primary Jurisdiction.

Western Australia

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?

Yes

1.10.1.0 Council contact officer details

1.10.1.1 Name of relevant council contact officer.

Matthew Wansborough

1.10.1.2 E-mail

Matthew.Wansborough@capel.wa.gov.au

1.10.1.3 Telephone Number

08 9727 0223

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

Start date 07/2019

End date 07/2020

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

The site is currently zoned 'Special Rural – Area No. 6' under the Shire's Local Planning Scheme No 7. Under the Local Planning Scheme the general intent of Special Rural Area No. 6 is to facilitate subdivision and strata titling to permit development of a co-operative agricultural project. The existing intent of Lot 121 is to permit continued making of wine and ancillary and tourist uses. The existing intent of Lot 120 strata lots is co-operative agricultural enterprises, including viticulture and grazing, with dwellings not being a permitted use.

The proponent will be lodging an amendment to the Shire of Capel Local Planning Scheme No 7 to rezone the site from 'Special Rural – Area No. 6' to 'Special Rural' to facilitate future subdivision to 1 ha rural residential lots. A concept plan, identifying proposed lot layout, building envelopes and access has been prepared as part of the scheme amendment and will guide a subsequent subdivision application following approval of the scheme amendment.

The development layout is depicted in Figure 2.

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

During preparation of the concept plan and reports to support the scheme amendment, the following stakeholders were consulted:

* Shire of Capel

* Department of Water and Environmental Regulation

* Department of Biodiversity, Conservation and Attractions.

Under the Planning and Development Act 2005, prior to advertising for public submissions, the Shire of Capel is required to refer the scheme amendment to the Environment Protection Authority (EPA) to determine whether the amendment should be assessed under the Environmental Protection Act 1986.

The Department of Planning Lands and Heritage (DPLH) Aboriginal Heritage Inquiry System identifies no registered Aboriginal sites or other heritage places within the site. No formal correspondence with the DPLH or local Aboriginal groups/representatives has been undertaken as part of the proposed action.

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.

Under the Planning and Development Act 2005, prior to advertising for public submissions, the

Shire of Capel is required to refer the scheme amendment to the Environment Protection Authority (EPA) to determine whether the amendment should be assessed under the Environmental Protection Act 1986.

An environmental assessment report has been prepared to support referral of the scheme amendment to the EPA.

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 have ANY direct or indirect impact on the values of any World Heritage properties?

No

2.2 Is the proposed action likely to have ANY direct or indirect impact on the values of any National Heritage places?

No

2.3 Is the proposed action likely to have ANY direct or indirect impact on the ecological character of a Ramsar wetland?

No

2.4 Is the proposed action likely to have ANY direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

Yes

2.4.1 Impact table

Species	Impact
Carnaby's Black Cockatoo (Calyptorhynchus	Will the action contribute to the long-term

Species	Impact
latirostris), Baudin's Black Cockatoo (Calyptorhynchus baudinii) and Forest Red-tailed Black Cockatoo (Calyptorhynchus banksii naso)	decrease in the size of a population? Highly unlikely. The proposed action will not lead to a long-term decrease in the size of a population. The proposed action will result in the removal of approximately 1.4 ha, and 1.5 ha of potential foraging habitat within the road reserve and Lots 120 and 121 respectively, and while there are Tuart and Marri trees that are potential black cockatoo habitat trees (DBH >500 mm), no hollows were observed. The proposed clearing will not lead to a long-term decrease in the size of black cockatoo populations due to: • the residual presence of large areas of vegetation within the locality and region • the nature of black cockatoo populations, which are highly mobile with extensive ranges • there are no known breeding areas or hollows within the area of impact.
Carnaby's Black Cockatoo (Calyptorhynchus latirostris), Baudin's Black Cockatoo (Calyptorhynchus baudinii) and Forest Red-tailed Black Cockatoo (Calyptorhynchus banksii naso)	Will the action reduce the area of occupancy of the species? Highly unlikely. The proposed action will not reduce the area of occupancy of the species. The project area is near existing reserves containing potential black cockatoo habitat, including Regional Open Space identified under the Greater Bunbury Region Scheme directly to the north and west of the site, Shire Crown Reserve directly to the east of the site and Tuart Woodland National Park approximately 5.4 km the south of the site. As such the proposed action will not reduce the area of occupancy of the species.
Carnaby's Black Cockatoo (Calyptorhynchus latirostris), Baudin's Black Cockatoo (Calyptorhynchus baudinii) and Forest Red-tailed Black Cockatoo (Calyptorhynchus banksii naso)	Will the action fragment an existing population into two or more populations? Highly unlikely. Native vegetation within Lot 121 is a 1.4 ha isolated patch (located more than 140 m from any other native vegetation) and the southern portion of the unconstructed road reserve adjoins completely cleared portions of Lot 120 to the east. The northern portion of the unconstructed road reserve consists of isolated trees surrounded by land that has been cleared or contains highly modified native vegetation. On this basis clearing of vegetation within the project area is not likely to result in fragmentation of existing populations.
Carnaby's Black Cockatoo (Calyptorhynchus	Will the action adversely affect habitat critical to

Species	Impact
latirostris), Baudin's Black Cockatoo (Calyptorhynchus baudinii) and Forest Red-tailed Black Cockatoo (Calyptorhynchus banksii naso)	the survival of a species? Highly unlikely. The unconstructed road reserve and Lots 120 and 121 contain potential foraging habitat for black cockatoos. However, there are no known breeding or roosting sites within either. As such the action will not adversely affect habitat critical to the survival of the species.
Carnaby's Black Cockatoo (Calyptorhynchus latirostris), Baudin's Black Cockatoo (Calyptorhynchus baudinii) and Forest Red-tailed Black Cockatoo (Calyptorhynchus banksii naso)	Will the action disrupt the breeding cycle of a population? Highly unlikely. The clearing will remove a number of scattered potential breeding trees. None of the potential breeding trees have suitable hollows and none are a known breeding site. On this basis, the action will not disrupt the breeding cycle of a population.
Carnaby's Black Cockatoo (Calyptorhynchus latirostris), Baudin's Black Cockatoo (Calyptorhynchus baudinii) and Forest Red-tailed Black Cockatoo (Calyptorhynchus banksii naso)	Will the action result in disease or invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat? Highly unlikely. The proposed action will not involve any actions that may cause the introduction of new diseases or invasive species to black cockatoos.
Carnaby's Black Cockatoo (Calyptorhynchus latirostris), Baudin's Black Cockatoo (Calyptorhynchus baudinii) and Forest Red-tailed Black Cockatoo (Calyptorhynchus banksii naso)	Will the action modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline? Highly unlikely. The loss of habitat because of the proposed action represents only a small portion of the potential habitat available near the proposed clearing. Black cockatoos are highly mobile species; therefore, the proposed action will not present a barrier to movement across the region.
Western Ringtail Possum (Pseudocheirus occidentalis)	Will the action contribute to the long-term decrease in the size of a population? Highly unlikely. The proposed action will not lead to a long-term decrease in the size of a population. The proposed action will result in the removal of isolated Peppermint trees within a 2.9 ha clearing footprint that contains predominantly Tuart and Marri trees. No dreys, scats or hollows were observed. The proposed clearing will not lead to a long-term decrease in the size of Western Ringtail Possum populations due to: • the residual presence of large areas of

Species	Impact
	vegetation within the locality and region, including Shire Crown Reserve directly to the east that is mapped as 'Core Habitat' under the significant impact guidelines for Western Ringtail Possum (DEWHA 2009) • small amount of isolated Peppermint trees within the area of impact • there are no observed dreys or hollows within the area of impact.
Western Ringtail Possum (Pseudocheirus occidentalis)	Will the action reduce the area of occupancy of the species? Highly unlikely. The proposed action will not reduce the area of occupancy of the species. The project area is near existing reserves containing potential similar habitat, including Regional Open Space identified under the Greater Bunbury Region Scheme directly to the north and west of the site and Shire Crown Reserve directly to the east of the site. As such the proposed action will not reduce the area of occupancy of the species.
Western Ringtail Possum (Pseudocheirus occidentalis)	Will the action fragment an existing population into two or more populations? Highly unlikely. Native vegetation within Lot 121 is a 1.4 ha isolated patch (located more than 140 m from any other native vegetation) and the southern portion of the unconstructed road reserve adjoins completely cleared portions of Lot 120 to the east. The northern portion of the unconstructed road reserve consists of isolated trees surrounded by land that has been cleared or contains highly modified native vegetation. On this basis clearing of vegetation within the project area will not create a disjuncture between patches that affects the ability of animals to move and is not likely to result in fragmentation of existing populations.
Western Ringtail Possum (Pseudocheirus occidentalis)	Will the action adversely affect habitat critical to the survival of a species? Highly unlikely. Peppermint trees, a known dietary item of Western Ringtail Possum, that are located in the unconstructed road reserve and Lots 120 and 121 are isolated. There are no observed breeding sites within either. As such the action will not adversely affect habitat critical to the survival of the species.
Western Ringtail Possum (Pseudocheirus occidentalis)	Will the action disrupt the breeding cycle of a population? Highly unlikely. The small patches

Species	Impact
	of Peppermint trees are isolated in nature and contain no observable dreys. The isolated mature Tuart and Marri trees contained no observable hollows in which Western Ringtail Possum could den. No Western Ringtail Possum scats were observed during the field assessment. On this basis, the action will not disrupt the breeding cycle of a population.
Western Ringtail Possum (Pseudocheirus occidentalis)	Will the action result in disease or invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat? Highly unlikely. The proposed action will not involve any actions that may cause the introduction of new diseases or invasive species to Western Ringtail Possum.
Western Ringtail Possum (Pseudocheirus occidentalis)	Will the action modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline? Highly unlikely. The small patches of Peppermint trees are isolated in nature and contain no observable dreys. As such the Western Ringtail Possum may utilise this strip of vegetation containing Tuart, Marri and Peppermint, as a corridor, however it is unlikely to depend on the habitat for either foraging or denning. Removal of this small strip of vegetation represents a small portion of low quality supporting habitat in comparison the surrounding available habitat, including Shire Crown Reserve directly to the east that is mapped as 'Core Habitat' under the significant impact guidelines for Western Ringtail Possum (DEWHA 2009).
Future Tuart Woodland TEC	Reduce the extent of an ecological community: Highly unlikely. The action will result in the clearing of 1.4 ha of Tuart woodland within a portion of the unconstructed road reserve, and 1.5 ha of Tuart woodland within Lots 120 and 121. An assessment against the draft diagnostic criteria for the Tuart woodlands (TSSC 2017) identified the vegetation as: • being located within the Swan Coastal Plain Bioregion • containing tuarts that occur as a woodland • containing tuarts as a dominant

Species	Impact
	canopy species in isolated areas • being in 'Degraded-Completely Degraded' condition, with the only one other native flora species (Agonis flexuosa) being present.
Future Tuart Woodland TEC	Fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines: Unlikely. The Tuart woodland within Lot 121 is a 1.4 ha isolated patch (located more than 140 m from any other native vegetation) and therefore clearing of this vegetation will not result in increased fragmentation of the ecological community. Tuart woodland within the southern portion of the unconstructed road reserve adjoins completely cleared portions of Lot 120 to the east. Tuart woodland within the northern portion of the unconstructed road reserve consists of isolated trees surrounded by land that has been cleared or contains highly modified native vegetation. On this basis clearing of vegetation within the road reserve is not likely to result in fragmentation of viable representations of the ecological community.
Future Tuart Woodland TEC	Adversely affect habitat critical to the survival of an ecological community: Highly unlikely. The action will not adversely affect habitat critical to the survival of the ecological community, as it includes the clearing of 1.4 ha of Tuart Woodland within the road reserve, and 1.5 ha of Tuart woodland within Lots 120 and 121, all of which is in 'Degraded-Completely Degraded' condition.
Future Tuart Woodland TEC	Modify or destroy abiotic factors necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns: Highly unlikely. The action (clearing) will not modify or destroy abiotic factors necessary for the ecological community survival. The following nearby sites contain patches of Tuart woodland that are in better condition in comparison to vegetation in the action area: • Regional Open Space identified under the Greater Bunbury Region Scheme directly to the north and west of the site • Shire Crown Reserve directly to the east of the site • Tuart

Species	Impact
	Woodland National Park to the south of the site No changes to hydrological regime or nutrient inputs to soil are proposed as part of the proposal. Roads will be designed as rural roads with road side swales for water management. Nutrient balance assessments prepared as part of a Land Capability Assessment identify that the proposed rezoning is not anticipated to increase the nutrient loading rate above that of the current zoned land use.
Future Tuart Woodland TEC	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: Highly unlikely. The clearing of 2.9 ha within Lots 120 and 121 and the unconstructed road reserve is not considered a substantial change in the species composition of the ecological community. This vegetation has already had significant historical disturbance as part of previous rural activities, including grazing, and as result no longer contains an intact mid or under storey of native flora species.
Future Tuart Woodland TEC	Cause a substantial reduction in the quality or integrity of an occurrence of an ecological community: Highly unlikely. The action of clearing 1.5 ha within Lots 120 and 121 and 1.4 ha within the unconstructed road reserve is not considered to be a substantial reduction in the quality or integrity of the ecological community, due to the vegetation being in ‘Degraded-Completely Degraded’ condition.
Future Tuart Woodland TEC	Interfere with the recovery of an ecological community: Highly unlikely. The action will not interfere with the recovery of the ecological community due to the presence of Tuart woodland within the following nearby sites: • Regional Open Space identified under the Greater Bunbury Region Scheme directly to the north and west of the site • Shire Crown Reserve directly to the east of the site • Tuart Woodland National Park approximately 5.4 km the south of the site.

2.4.2 Do you consider this impact to be significant?

No

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

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 to be taken on or near Commonwealth land?

No

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

No

2.9 Is the proposed action likely to have ANY direct or indirect 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 have ANY direct or indirect 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.

A Reconnaissance flora, vegetation and fauna surveys have been undertaken within the project area (Strategen 2018a).

The surveys did not identify any Threatened or Priority flora. A total of 16 flora species, of which 10 were introduced species, were recorded. Refer to Section 3.5 for vegetation information.

A total of 108 species of fauna were identified as having the potential to occur within the project area as a result of desktop assessments (Strategen 2018a). A reconnaissance survey observed (or positively identified from scats, tracks, skeletons or calls) a total of nine fauna species. This total included one reptile, seven birds and one mammal.

The assessment identified potential black cockatoo foraging habitat, including Tuart and Marri trees. No foraging evidence in the form of chewed nuts was recorded. No observable hollows suitable for Black Cockatoo breeding were recorded. There are no known records of black cockatoos roosting or breeding in the area. The survey area contained a number of potential breeding trees. The potential breeding trees were Tuart and Marri and were all considered large enough to be considered as having a DBH > 500 mm and hence potential breeding habitat. No observable hollows were recorded.

The assessment identified a small number of Peppermint trees, that is a known dietary item of the Western Ringtail Possum. The survey area also contained individual isolated mature trees Tuart and Marri habitat known to provide potential denning for Western Ringtail Possum. The small patches of Peppermint were isolated in nature and contained no observable dreys. The isolated mature Tuart and Marri trees contained no observable hollows in which the Western Ringtail Possum could den. No Western Ringtail Possum scats were observed during the field assessment.

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

The site is located adjacent to Five Mile Brook Diversion Drain (FMBDD) (Figure 1). There are no naturally occurring surface water drains or water courses on the site. The absence of surface water features is due to the high permeability of the sands and significant clearance to groundwater. Rain falling on the site consequently infiltrates and recharges groundwater.

Mapping of the 1 in 100 year Average Return Interval (ARI) flood for the FMBDD was developed

by Water Corporation. The flood levels (including 0.5 m freeboard) vary from 7.6 mAHD in the southwest of the site to 9.6 mAHD in the northeast. These water levels are well below the minimum level of the site of approximately 13 mAHD along the eastern and south-eastern boundaries. Flooding of the site and any associated effluent disposal areas is consequently not considered to be a constraint to development.

The Geomorphic Wetlands Swan Coastal Plain dataset maps a Conservation Category Wetland (CCW) directly adjacent and west of the project area and a Resource Enhancement Wetland to the northwest and a Multiple Use Wetland to the southwest. A Reconnaissance Flora and Vegetation Survey undertaken by Strategen (see Section 3.5) observed that vegetation associated within these adjacent wetlands shows signs of degradation and disturbance, with it currently being grazed by cattle. The vegetation surrounding the wetlands was dominated mostly by grassy weeds and Typha orientalis.

The project area is located within a ‘sensitive sewage area’ as defined in the Draft Government Sewerage Policy (DGSP; DoP 2016), due to being located within 1 km of a CCW and within 2 km of coastal embayments. Under the Policy, the on-site disposal of sewage effluent within sensitive sewage areas and on sandy soils requires a minimum 1.5 m clearance from the highest known groundwater level.

A groundwater bore was constructed on the site in 2011 by RPS to a depth of 11 m below ground level. The bore was monitored monthly between October and December 2011 (RPS 2014). The highest recorded groundwater level was 5.28 mAHD (RPS 2014). The depth to the maximum groundwater levels on the site was estimated to be 9 to 25 m below ground level (mbgl) (RPS 2014). As part of Land Capability Assessment (Strategen 2018b) for the project area, Strategen undertook soil testing that confirmed that groundwater is not anticipated to occur within the 2 m test pit depth. This meets requirements for a minimum separation of 1.5 m to groundwater under the DGSP.

Consideration was given to the requirement for a Local Water Management Strategy (LWMS) to accompany the Scheme amendment. Department of Water and Environmental Regulation (DWER) and Shire of Capel were consulted on this matter. Both DWER and the Shire considered that the site was not constrained from a water management perspective and that an Urban Water Management Plan at subdivision would be adequate to address any water management issues.

The key matters identified in this decision were that:

* in 2014 a District Water Management Strategy (DWMS) was developed by RPS (2014) for medium to high density urban development for this area, and the analysis of flood and groundwater levels identified these were low risk

* the proposal will not undertake earthworks that would significantly reduce the current level of the site, and hence separation to flood and groundwater levels

* the current proposed concept plan is for 1 ha lots, which is at much lower densities than proposed in the DWMS. This reduces the risk further with minimal changes to imperviousness

resulting in the runoff characteristics of the site remaining predominately unchanged

* roads will be designed as rural roads with road side swales for water management, and Minninup Road will provide a barrier between the lots and the wetlands to the west

* reticulated scheme water will be provided and on-site effluent management will be in accordance with the DGSP with Aerobic Treatment Units being required.

A 100 m setback will be provided from the edge of the CCW to the effluent disposal areas, consistent with the DGSP. All indicative building envelopes are located further than 50 m from the boundary of the mapped CCW.

The proposed road along the western boundary of the site will provide a hard edge that delineates the adjacent wetland from proposed lots and will also assist with managing potential edge effects from adjacent lots, such as spread of weeds. Given that land uses under the current and proposed Scheme provisions do not vary significantly, nutrient balance assessments prepared as part of the Land Capability Assessment identify that the proposed rezoning is not anticipated to increase the nutrient loading rate above that of the current zoned land use. Roads will be designed as rural roads with road side swales for water management.

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

Regional Department of Primary Industries and Regional Development (DPIRD) soil mapping indicates that the majority of the project area is located on Spearwood type soils, predominantly the Spearwood S3b Phase. This Phase is described as ‘Lower slopes (1-5%) of dune ridge with bleached or pale sands with a yellow-brown or pale brown subsoil’ (DAFWA 2017).

Small portions of the project area are mapped as:

Spearwood S2c Phase: bleached or pale sands with a yellow-brown or pale brown subsoil.

Spearwood S3a Phase: Poorly drained interdunal swales and depressions with gently inclined side slopes, with deep bleached white/grey sands underlain by an organic pan or peat deposit (DAFWA 2017).

As part of the Land Capability Assessment (Strategen 2018b) six soil test pits were located in areas where these soils were mapped as occurring to assess whether these soil types were present on the site. The soils encountered by Strategen consist of:

A topsoil layer of 0.2-0.4 m of brown to grey-brown loamy sand

Grey-brown to fine to coarse sand, grey to yellow-brown in colour to end of hole.

No limestone was encountered during test pitting by Strategen. Studies undertaken by RPS as part of preparation of a DWMS for a previous proposal within the site also did not encounter limestone in three test pits or one monitoring bore (RPS 2014).

Regional vegetation association mapping (Beard, 1990) indicates that there were originally two associations mapped as occurring within the site, which included 37- Shrublands; teatree thicket and 6 - Medium woodland; Tuart and Jarrah. Heddle et al. (1986) has mapped Vasse complex and the Karrakatta Complex-Central and South as occurring within the site.

The Strategen (2018a) vegetation survey recorded the following vegetation types (VT) within the project area:

VT1: Eucalyptus gomphocephala and scattered Agonis flexuosa isolated clumps of trees over weedy grassland (Ehrharta calycina). 3.37ha

VT2: Allocasuarina fraseriana planted trees over weedy grassland. 0.35ha

VT3: Corymbia calophylla and Allocasuarina fraseriana planted trees over weedy grassland. 0.11ha.

VT4: Platanus orientalis planted trees over weedy grassland. 0.07ha

VT5: Garden. 0.20ha.

VT1 is the only native vegetation community recorded within the project area and is associated with the Tuart Woodlands of the Swan Coastal Plain ecological community, and is discussed in further detail in Section 3.5.

The site has been extensively cleared to incorporate previous rural land uses and there is little remnant vegetation within the site. The unconstructed road reserve adjoining the western boundary of the site has also been significantly modified.

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

The Geomorphic Wetlands Swan Coastal Plain dataset maps a Conservation Category Wetland directly adjacent and west of the project area and a Resource Enhancement Wetland to the northwest.

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

Native vegetation within the project is degraded due to historic and current agricultural land uses of rural land uses, including grazing. Remaining native vegetation is in 'Degraded-Completely Degraded' condition. The dominant remnant vegetation type is open Tuart and marri Woodland with scattered Peppermint.

The Tuart woodlands and forests of the Swan Coastal Plain Priority Ecological Community is currently under consideration for listing as a TEC under the EPBC Act, has the potential to occur given the landforms, soils and vegetation within the project area. Given this, vegetation

within the survey area was assessed against the draft diagnostic criteria for the Tuart woodlands and forests of the Swan Coastal Plain (TSSC 2017). This assessment concluded the survey area was unlikely to contain the community as defined by the draft diagnostic criteria given that Tuart trees as the dominant canopy species is limited to small isolated areas within remnant vegetation and that vegetation is 'Degraded-Completely Degraded' condition.

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

The site varies in height from 30 mAHD in the north to approximately 13 mAHD on the south and south-eastern boundary. The topography is dominated by a series of dunes that run through the central and eastern portion of the site.

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

The vegetation within the project area was recorded as 'Degraded-Completely Degraded' to 'Completely Degraded' condition in accordance with the Keighery vegetation scale (1994).

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

No heritage places listed on Commonwealth lists or the WA Register of Heritage Places exist within or in close proximity to the project area.

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

According to the DPLH Aboriginal Heritage Inquiry System, no registered Aboriginal sites or other heritage places are located within or immediately adjacent to the project area.

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

Lots 120 and 121 Minninup Road are freehold land owned by Geographe Property Pty Ltd and the unconstructed road reserve is vested in the Crown and is under the control of the Shire of Capel.

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

Lot 121 contains a dwelling, a number of outbuildings associated with a winery, scattered pockets of native and planted vegetation, and an access easement to Minninup Road to the southwest. Lot 120 contains 19 strata lots of approximately 2 ha in size, which are

predominantly cleared.

The unconstructed road reserve has been subject to historic grazing.

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.

The development layout (Figure 2) has been designed to realign a portion of the proposed Minninup Road extension to the east and outside of the existing road reserve, resulting in retention of an area of existing vegetation within the road reserve in this location and reducing the proposed clearing footprint.

To facilitate the development in the project area it will be necessary to remove all remnant vegetation within the portion of road reserve to be constructed and the majority of remnant vegetation within Lots 120 and 121 will therefore result in a direct loss of 2.9 ha of Tuart woodland. Prior to ground disturbing works commencing within the project area a Construction Environment Management Plan will be developed and implemented during the clearing process, which will include management measures to ensure:

* all clearing is undertaken in accordance with subdivision approval and conditions and approved engineering site works specifications

* no clearing or disturbance during construction outside of pre-defined area of approved works

* emissions resulting from construction activities are contained within the immediate vicinity of the construction works taking place.

* no injury/death of fauna caused by clearing and construction activities.

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.

The environmental outcomes of the project action include clearing of the following:

2.9 ha of native vegetation that includes Tuart woodland in ‘Degraded-Completely Degraded’ condition, black cockatoo foraging habitat in ‘Degraded’ condition, scattered Tuart and Marri black cockatoo habitat trees (no hollows present) and Western Ringtail Possum supporting

habitat in ‘Degraded’ condition (no dreys or hollows present).

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.

The proposed action is not considered to be a controlled action as it is unlikely to have an adverse impact on any of the MNES discussed in Section 2.4.1 (Carnaby's Black Cockatoo (Calyptorhynchus latirostris), Baudin's Black Cockatoo (Calyptorhynchus baudinii) and Forest Red-tailed Black Cockatoo (Calyptorhynchus banksii naso), Western Ringtail Possum (Pseudocheirus occidentalis) or future (potential) Tuart Woodland TEC). The assessment outcomes provided in this referral (refer to listed species or any threatened ecological community, or their habitat impact table), provide an assessment of significance against current guidelines, the clearing of a total of 2.9 ha which includes:

* vegetation that is in 'Degraded-Completely Degraded' condition

* black cockatoo foraging habitat in 'Degraded' condition

* scattered Tuart and Marri black cockatoo habitat trees (no hollows present)

* Western Ringtail Possum supporting habitat in 'Degraded' condition that provides limited foraging habitat and no dreys or hollows present

* remnant vegetation, which when assessed against the draft diagnostic criteria for the Tuart woodlands and forests of the Swan Coastal Plain (TSSC 2017) is considered unlikely to contain the community given that Tuart trees as the dominant canopy species is limited to small isolated areas within remnant vegetation and that vegetation is in 'Degraded-Completely Degraded' condition.

Based on the above, the proposed action is unlikely to be considered a significant impact on MNES in accordance with the Significant Impact Guidelines 1.1- Matters of National Environmental Significance (DoE 2013).

This is based on:

* the scale of the clearing (2.9 ha) in relation to the overall distribution and availability of higher

quality Tuart woodland and black cockatoo and Western Ringtail Possum habitat within less than 6 km of the proposal area, including ROS directly adjacent to the project area to the west and north, Shire Reserve directly adjacent to the project area to the east and Tuart Woodland National Park (5.4 km)

* the vegetation is in ‘Degraded-Completely Degraded’ condition due to significant historical disturbance as part of previous rural activities, including grazing, and as result no longer contains an intact mid or under storey of native flora species

* the site is considered unlikely to contain the Tuart woodland vegetation community based on assessment against the draft diagnostic criteria for the community

* the absence of any known roosting or nesting sites for black cockatoos located within the area of impact

* the isolated and small patches of Peppermint trees that are unlikely to provide significant foraging or denning habitat for Western Ringtail Possum

* the existing vegetation is fragmented and the clearing will not result in further fragmentation of black cockatoo or Western Ringtail Possum populations.

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 has not undertaken any previous development works. The Proponent is a wholly owned sub-entity of Cedar Woods Properties Limited.

Cedar Woods Properties Limited in an Australian property development company. The company was established in 1987 and has been listed on the Australian Stock Exchange since 1994. The company's principal interests are in urban land and built form development for residential, industrial and commercial purposes. Its portfolio of assets is located in Western Australia and Victoria. The Board and management of Cedar Woods have extensive experience in adding value to land holdings, through the achievement of government and local authority approvals and planning and design process. Cedar Wood's projects are sensitively developed in consideration of environmental and community interests and built to a high quality that is renowned in the marketplace.

Cedar Woods has been the recipient of numerous industry awards, in environmental categories which include the Urban Development Institute of Australia 'Environmental Excellence' Awards and Local Environmental Excellence Awards. Cedar Woods has also been recognised in the water management industry with awards for excellence receiving awards for Water Conservation and Efficiency.

The below examples demonstrate Cedar Woods' commitment to delivering environmentally sensitive projects.

* Bushmead is Cedar Woods first project to achieve the highest level '6 Leaf' accreditation under the Urban Institute of Australia's EnviroDevelopment accreditation tool. Initiatives include providing 187ha for conservation, revegetation of 38ha of formerly cleared or degraded land; and significant tree retention in the approved urban area.

* The Ellendale masterplan dedicates 40% (90 ha) of the site as a green-space corridor. It has received Federal, State and local government environmental approvals. The project is considered to result in overall environment enhancement, including restored habitat linkages, improved wildlife movement networks, including fauna underpasses, squirrel glider poles and nesting boxes and ecological buffers. In FY2017 the first 50 hectares of green space corridor land was dedicated to Council with significant revegetation completed to date and the first wildlife movement solutions installed.

* The Brook at Byford the ‘Forever Project’ was launched, funded by the Water Corporation, to promote water wise design, undertaking verge makeovers and engaging with residents through workshops.

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.

Not applicable

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation’s environmental policy and framework?

Yes

6.3.1 If the person taking the action is a corporation, please provide details of the corporation's environmental policy and planning framework.

The action will be taken in accordance with the relevant Cedar Woods Properties (of which Geographe Property Pty Ltd is a sub-entity) environmental and sustainability policy and frameworks.

In undertaking the Proposed Action, the Proponent will comply with the development conditions of all development approvals granted.

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.

Cedar Woods Properties Limited has made the following referrals under the EPBC Act:

EPBC Referral No. 2015/7414 – Residential development, Lot 911 Midland Road, Hazelmere

EPBC Referral No. 2014/7338 – Master planned development, Upper Kedron, Queensland.

EPBC Referral No. 2010/5659 Mangles Bay Marina Based Tourist Resort (co-proponent).

EPBC Referral No. 2009/5249 Laverton Wetland (co-proponent)

EPBC Referral No. 2007/3339 – Residential development, Lalor, Melbourne, Victoria.

EPBC Referral No. 2006/2504 – Laverton Activity Centre and Residential Development, Victoria.

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
Beard JS 1981, Vegetation of Western Australia 1:3000000 Map and Explanatory Notes. Forests Department Western Australia Press, Como, Western Australia.	Reliable	N/A
Department of Agriculture and Food Western Australia, 2017, South West Agriculture Region Reports, DAFWA, Perth.	Reliable	N/A
Department of Environment (DoE), 2013. Significant impact guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999.	Reliable	N/A
Department of the Environment, Water, Heritage and the Arts (DEWHA) 2009, Significant impact Guidelines for the Vulnerable western ringtail possum (Pseudocheirus occidentalis) in the southern Swan Coastal Plain, Western Australia, EPBC Act policy statement 3.10.	Reliable	N/A
Department of Planning (DoP) 2016, Draft Government Sewerage Policy, DoP, Perth.	Reliable	N/A
Heddle EM, Loneragan OW & Havel JJ 1980, Darling System, Vegetation Complexes, Forest Department, Perth.	Reliable	N/A
Keighery, 1994 vegetation condition scale commonly used in the Perth Metropolitan	Reliable	N/A

Reference Source	Reliability	Uncertainties
Region. In: Bush Forever: Volume 2 Directory of Bush Forever Site (2000). Government of Western Australia.		
RPS 2014, District Water Management Strategy: Killerby, Lots 120 and 121 Minninup Road, Dalyellup, unpublished report to Geographe Properties, February 2014.	Reliable	N/A
Strategen 2018a, Lots 120 and 121 Minninup Road, Dalyellup, Reconnaissance flora, vegetation and fauna survey, prepared for Geographe Property, May 2018.	Reliable	N/A
Strategen 2018b, Lots 120 and 121 Minninup Road, Dalyellup, Land capability assessment, prepared for Geographe Property, May 2018.	Reliable	N/A
Threatened Species Scientific Committee (TSSC) 2017, Environment Protection and Biodiversity Conservation Act Draft Conservation Advice for the Tuart (Eucalyptus gomphocephala) Woodlands of the Swan Coastal Plain Ecological Community.	Reliable	N/A

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.

8.1 Select the relevant alternatives related to your proposed action.

8.27 Do you have another alternative?

No

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

Development Manager

9.2.2 First Name

Preston

9.2.3 Last Name

O'Keefe

9.2.4 E-mail

Preston.OKeefe@cedarwoods.com.au

9.2.5 Postal Address

PO Box 788
WEST PERTH WA 6872
Australia

9.2.6 ABN/ACN

ABN

20126794474 - Geographe Property Pty Ltd

9.2.7 Organisation Telephone

08 9480 1500

9.2.8 Organisation E-mail

perth@cedarwoods.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, PRESTON O'KEEFE, 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: 30/7/18

I, PRESTON O'KEEFE, the person proposing the action, consent to the designation of Geographe Property Pty Ltd as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature:..... Date: 30/7/18

9.3 Is the Proposed Designated Proponent an Organisation or Individual?

Organisation

9.5 Organisation

9.5.1 Job Title

Development Manager

9.5.2 First Name

Preston

9.5.3 Last Name

O'Keefe

9.5.4 E-mail

Preston.OKeefe@cedarwoods.com.au

9.5.5 Postal Address

PO Box 788
WEST PERTH WA 6872
Australia

9.5.6 ABN/ACN

ABN

20126794474 - Geographe Property Pty Ltd

9.5.7 Organisation Telephone

08 9480 1500

9.5.8 Organisation E-mail

perth@cedarwoods.com.au

Proposed designated proponent - Declaration

I, PRESTON O'KEEFE, 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: 30/7/18.....

9.6 Is the Referring Party an Organisation or Individual?

Organisation

9.8 Organisation

9.8.1 Job Title

CEO

9.8.2 First Name

Darren

9.8.3 Last Name

Walsh

9.8.4 E-mail

d.walsh@strategen.com.au

9.8.5 Postal Address

PO Box 243
SUBIACO WA 6904
Australia

9.8.6 ABN/ACN

ABN

32056190419 - STRATEGEN ENVIRONMENTAL CONSULTANTS PTY LTD

9.8.7 Organisation Telephone

08 9380 3100

9.8.8 Organisation E-mail

info@strategen.com.au

Referring Party - Declaration

I, _____Darren Walsh_____, 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: ……30/7/18…….

Appendix A - Attachments

The following attachments have been supplied with this EPBC Act Referral:

1. attachment_a_rog18048_01_r001_rev_0_part_1_of_2.pdf
2. attachment_a_rog18048_01_r001_rev_0_part_2_of_2.pdf
3. attachment_b_appendix_1_of_lca_district_water_man_strategy_part_3_of_3.pdf
4. attachment_b_rog18048_01_r002_rev_0_part_1_of_3.pdf
5. attachment_b_rog18048_01_r002_rev_0_part_2_of_3.pdf
6. attachment_c_cedar_woods_sustainability_objectives.pdf
7. attachment_d_cedar_woods_2017_sustainability_report.pdf
8. rog18048_01_r001_reva_f001_a3_reduced.pdf
9. rog18048_01_r001_reva_f002_a3_reduced.pdf