

Clearing Desktop Report – Short Form



1. PROPOSAL DETAILS

Proposal Name:	Great Northern Highway & Rutland Road Roundabout		
Region/Directorate:	Metropolitan Region		
Local Government:	City of Swan		
Road/Bridge Name & Number:	Great Northern Highway (H006) Rutland Road (1090045)		
Proposal Location (SLK):	(H006) SLK 27.8 – SLK 28.50 (1090045) SLK 0 – SLK 0.33		
CDR Short Form TRIM Number:	D24#1059924		
Spatial Data TRIM Number:	D24#934873		
EOS Number:	1135		
Expected Proposal Start Date:	October 2024		
Oracle Project No:	21111723	Task Code:	13.01
LISC TRIM Number:	D17#926819	HRA TRIM Number:	D17#926824

2. PURPOSE OF CLEARING

Main Roads Western Australia proposes to upgrade the intersection of Great Northern Highway (GNH) and Rutland Road (SLK 28.2) in the city of Swan, approximately 50 km north of Perth. The Proposal involves changing the current GNH / Rutland Road T-junction under stop control in Bullsbrook to a 3-leg roundabout. The Proposal will also include the installation of a Principal Shared Path (PSP) on the eastern verge of GNH. The Proposal will provide the following benefits:

- Reduce the number of rear end crashes and right turn through kill or serious injury crashes at the intersection by 88% with the installation of a roundabout and lowering the speed limit on all approaches.
- Contribute to the reduction of night time crashes by 30% with improved street lighting to meet current standards.
- Improve access and safety for all vulnerable road users by upgrading the intersection to current access and mobility standards.
- Improve safety and access for all road users.
- Reduce the risk of vehicular / pedestrian conflict.

The works will clear up to 0.09 ha of native vegetation (Figure 1; Appendix 1). The Native Vegetation Clearing Area will be managed under CPS 818.

3. ALTERNATIVES TO CLEARING

The following alternatives to clearing were considered during the development of the Proposal:

- Do not upgrade the road: This will potentially result in a poorer safety outcome and may result in future fatalities or serious injuries and further degradation of the State road asset.
- Main Roads retains frangible vegetation where a clear zone is to be established for road projects: For this project, however, clearing will only be required to accommodate the road formation, with no clear zone being established. Accordingly, the retention of frangible vegetation does not apply to this Proposal.
- Reducing the speed limit to minimise clearing requirements, while still balancing safety (driver fatigue) and freight efficiency: Speed Limits are an essential mechanism to ensure the safe and efficient operation of road networks. The application of appropriate speed limits and other traffic management measures is a key mechanism in managing vehicle speeds to achieve desired safety, mobility, traffic management, local amenity, and road user expectations. There are several factors

involved in road safety, including road conditions, driver behaviour and overall road design. Except in special situations, reducing speed limits below national standards on state and national roads is not typically supported as it has the potential to contribute to driver frustration, impatience, tiredness and recklessness. The environmental values protected by reducing the speed limit, do not justify the impacts on freight efficiencies nor road user safety. Accordingly, the reduction of the speed limits to avoid clearing of native vegetation for this Proposal is not proposed.

4. MEASURES TO AVOID, MINIMISE, MITIGATE AND MANAGE PROPOSAL CLEARING IMPACTS

Design or Management Measure	Discussion and Justification
Steepen batter slopes	The standard 6:1 slope on the fill batters has been reduced to 3:1, allowing for the reduction in required clearing on areas of proposed pavement fill and in the surface table drains.
Installation of safety barriers	Safety barriers were not considered applicable in this case given the project is related to the installation of a roundabout.
Alignment to one side of existing road	Due to the reduced speeds of vehicles through the roundabout, curvilinear approaches are required and widening on only one side of GNH is not possible as a measure to avoid further impacts. Areas of vegetation clearing have been designed so that mainly planted vegetation is removed and vegetation of significance is retained where possible/clearing of native vegetation is minimised or other areas of environmental significance are not affected.
Alternative alignment to follow existing road.	Because the project is for the installation of a roundabout connecting two existing roads, realignment outside of the existing road reserve is not applicable.
Installation of kerbing	Kerbing has been considered and implemented in the design where possible through the roundabout and on its approaches.
Simplification of design to reduce Number of lanes and/or complexity of intersections	Design for the roundabout has been restricted to only one slip lane for traffic entering the roundabout and local road approaches as the existing intersection. Configuration is for a single lane approach on all approaches to the intersection.
Preferential use of existing cleared areas for access tracks, construction storage and stockpiling	No additional clearing will be required for temporary laydown areas for construction storage and stockpiling, site office etc. Already cleared areas will be utilised to avoid additional clearing of native vegetation.
Drainage modification	The drainage has been designed to largely be contained within the existing road reserves and existing clearing maintenance area. Kerbing has been included in the design where applicable resulting in minimisation of the extent of required clearing of existing vegetation, thereby minimising the environmental impact of the drainage required for the proposed roundabout.

5. APPROVED POLICES AND PLANNING INSTRUMENTS

The clearing of native vegetation in Western Australia is regulated under the *Environmental Protection Act 1986* (EP Act) and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.3), Main Roads has also had regard to the following documents.

Environmental Protection Policies:

- Environmental Protection (Peel Inlet - Harvey Estuary) Policy 1992
- Environmental Protection (Western Swamp Tortoise Habitat) Policy 2011

Other legislation of relevance for assessment of clearing and planning/other matters:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)

- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Country Areas Water Supply Act 1947* (WA) (CAWS Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)
- *Rights in Water and Irrigation Act 1914* (WA) (RIWI Act)
- *Aboriginal Heritage Act 1972* (WA) (AHA)
- *Town Planning and Development Act* (WA) 1928

Relevant other policies and guidance documents:

- Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (DEC, December 2014)
- Procedure: Native vegetation clearing permits (DWER, October 2019)
- Environmental Offsets Guidelines (Government of Western Australia, August 2014)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020)
- Approved conservation advice under section 266B of the EPBC Act for threatened flora/fauna/vegetation communities
- Approved Recovery Plans for threatened species
- EPBC Act Referral guidelines for the three threatened black cockatoo species
- Strategic advice - EPA

6. CLEARING AREA

Clearing Area (ha):	0.09 ha	No. Trees Cleared:	
Species Name(s):	A mid open <i>Corymbia calophylla</i> forest over mid open <i>Xanthorrhoea preissii</i> , <i>Dasypogon bromelifolius</i> and <i>Haemodorum spicatum</i> shrubland over low open <i>Hibbertia hypericoides</i> , <i>Banksia nivea</i> and <i>Stirlingia latifolia</i> shrubland (Phoenix, 2019).		
Easting and Northing:	Northern extent: 116.0179093°E, 31.6478680°S Eastern extent: 116.0181742°E, 31.6482104°S Southern extent: 116.0182776°E, 31.6482176°S Western extent: 116.0180654°E, 31.6482176°S		

7. EXISTING ENVIRONMENT AND SITE INFORMATION

Site Vegetation Description/Association:	Vegetation broadly aligns with the vegetation found in Vegetation Association 4 Medium woodland; marri & wandoo.
Site Vegetation Condition:	The Native Vegetation Clearing Area vegetation condition has been mapped as Degraded as part of the Rutland Road Intersection Improvements Biological Survey (Phoenix Environmental, 2019). The site exists directly adjacent to the Great Northern Highway / Rutland Road intersection.
Pre-European Extent Remaining (%):	State-wide: 26.95% IBRA Region (Swan Coastal Plain): 19.06% IBRA sub-region (Perth): 14.67% LGA (City of Swan): 53.99%

8. ASSESSMENT OF PROPOSAL AGAINST CLEARING PRINCIPLES

Is vegetation to be cleared at variance with:	Justification or Evidence:
Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity.	A biological survey was completed by Phoenix Environmental (2019). A total of 65 flora species and subspecies representing 25 families and 55 genera were recorded from the biological survey area. No Threatened Flora listed under the <i>Environmental Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) or

	the <i>Biodiversity Conservation Act 2016</i> (BC Act), or Priority flora were recorded within the Native Vegetation Clearing Area during the targeted searches conducted by Phoenix Environmental (2019). Native vegetation to be cleared is in a Degraded condition, comprising 0.09 ha CcXpHh: a mid open <i>Corymbia calophylla</i> forest over mid open <i>Xanthorrhoea preissii</i>, <i>Dasypogon bromeliifolius</i> and <i>Haemodorum spicatum</i> shrubland over low open <i>Hibbertia hypericoides</i>, <i>Banksia nivea</i> and <i>Stirlingia latifolia</i> shrubland. Native vegetation to be cleared is representative of the vegetation in the broader area. It is not considered to be of higher biological diversity than that of the surrounding area. No vegetation communities within the Native Vegetation Clearing or adjacent areas are considered representative of any known EPBC Act or BC Act listed Threatened Ecological Communities (TEC) or Department of Biodiversity, Conservation and Attractions (DBCA) Priority Ecological Communities (PEC) (Phoenix Environmental, 2019). None of the vegetation communities are locally significant as they are well represented outside of the Native Vegetation Clearing Area and, based on current available data, do not support any conservation significant plant species. Vegetation in the broader area is in better condition than that in the proposed Native Vegetation Clearing Area due to edge effects from the existing roads, and adjacent land use. One fauna habitat type was identified within the Native Vegetation Clearing Area (Phoenix Environmental, 2019), comprising 0.09 ha of Marri Woodland. This habitat type is considered well represented in the surrounding areas. The proposed clearing will not result in a significant loss of fauna habitat. Within a 12.2 ha biological survey area, 3.58 ha of Marri Woodland was mapped extending outside of the Native Vegetation Clearing Area. Up to 2 % of Marri Woodland mapped within the biological survey area is proposed to be cleared. A review of spatial data indicated the following conservation significant fauna species could potentially occur within the Native Vegetation Clearing Area (Phoenix Environmental, 2019): • Fork-tailed Swift (<i>Apus pacificus</i>) – Migratory under the EPBC and BC Act; • Carnaby's Cockatoo (<i>Calyptorhynchus latirostris</i>) – Endangered under the EPBC Act and BC Act; • Forest Red-tailed Black Cockatoo (<i>Calyptorhynchus banksii naso</i>) – Vulnerable under the EPBC Act and BC Act; • Western Quoll (<i>Dasyurus geoffroii</i>) – Vulnerable under the EPBC and BC Acts; • Peregrine Falcon (<i>Falco peregrinus</i>) – Other specially protected fauna under the BC Act; • Quenda (<i>Isodon fusciventer</i>) – Priority 4 listed by DBCA; • Black-striped Snake (<i>Neelaps calonotos</i>) – Priority 3 listed by DBCA.
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	Evidence of the Carnaby's Cockatoo (calls) and the Forest Red-tailed Black Cockatoo (foraging evidence and used suitable hollows in proximity of but not within the Native Vegetation Clearing Area) was identified during the 2019 biological survey (Phoenix Environmental, 2019). The Native Vegetation Clearing Area contains approximately 0.09 ha of high quality foraging habitat proposed to be cleared (Phoenix Environmental, 2019). There are no trees of suitable DBH (> 500 mm), known roosting trees nor nesting hollows present within the Native Vegetation Clearing Area. The Native Vegetation Clearing Area is located alongside the existing road alignment. Native vegetation proposed to be cleared is entirely in Degraded or worse condition than vegetation in the immediate (within 50 m) and broader area. Clearing of 0.09 ha from a larger area (3.58 ha) of high quality foraging habitat (Phoenix Environmental, 2019) will not significantly impact the overall quality of available foraging habitat. No evidence of any of the other significant fauna species listed above was identified in the Native Vegetation Clearing Area during the biological survey. Whilst some species of conservation significance have the potential to occur, they are unlikely to rely on this area and would preferentially utilise surrounding areas of higher quality vegetation and habitat that are not directly adjacent to the busy highway. Clearing of 0.09 ha of native vegetation from the Native Vegetation Clearing Area will not significantly impact species of conservation significance. Overall, the very minor amount of clearing proposed within a highly disturbed area adjacent to existing roads is not considered to comprise a high level of biodiversity compared to surrounding areas. As such the proposed clearing is not likely to be at variance to this Principle.
Principle (b) – Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.	One fauna habitat type was identified in the Native Vegetation Clearing Area during the Phoenix Environmental (2019) biological survey, comprising 0.09 ha of Marri Woodland. A desktop review of spatial data indicated seven conservation significant species (listed below) were likely to occur within the Native Vegetation Clearing Area. Fork-tailed Swift (<i>Apus pacificus</i>) Migratory under the EPBC and BC Act Occurs in a wide range of dry or open habitats, including riparian woodlands, tea-tree swamps, low scrub, heathland, saltmarsh, grassland and spinifex sandplains, open farmland and inland and coastal sand dunes. This species has the potential to occur as an occasional fly over visitor to the Native Vegetation Clearing Area as part of wide foraging range but was not recorded during the biological survey. The habitat type present is well represented in the surrounding areas and the small amount of clearing proposed from the Native Vegetation Clearing Area will not significantly impact this species.

Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksia naso*) (Vulnerable)

The Forest Red-tailed Black Cockatoo forages in jarrah and marri woodlands and forest, and edges of karri forests including wandoo and blackbutt trees, within the range of the subspecies. They generally breed in woodland or forest but may also breed in former woodland or forest now present as isolated trees. The species nests in hollows of both live or dead trees of marri, karri, wandoo, bullich (*E. megacarpa*), blackbutt (*E. patens*), tuart and jarrah.

One tree, approximately 60 m to the east of the Native Vegetation Clearing Area contains two used suitable hollows (Phoenix Environmental, 2019). An additional five DBH trees, (one with identified hollows that were not suitable for breeding) were identified to occur between 7 to 60 m from the Native Vegetation Clearing Area. No DBH trees are proposed to be cleared or impacted by this Proposal, therefore breeding habitat for this species will not be impacted.

0.09 ha of Forest Red-tailed Black Cockatoo potential foraging habitat is proposed to be cleared. Up to 3.58 ha of high-quality Marri Woodland was mapped within the 12.2 ha biological survey area (Phoenix, 2019) which extends outside of the Native Vegetation Clearing Area. Less than 2 % of mapped Marri Woodland habitat Woodland within the biological survey area (Phoenix Environmental, 2019) will be impacted by this Proposal. More than 98% of the surveyed (Phoenix Environmental, 2019) Marri Woodland fauna habitat will remain immediately surrounding the Native Vegetation Clearing Area. Suitable foraging habitat was reported to occur extensively to the east of the biological survey area (Phoenix Environmental, 2019).

Foraging habitat is well represented in the surrounding areas and the proposed clearing of 0.09 ha will not significantly impact this species. The Bullsbrook Nature Reserve is located approximately 1 km north of the Proposal Envelope and contains over 119 ha of bushland with recorded Black Cockatoo sightings (DBCA Threatened and Priority Fauna database). Based on available aerial imagery this bushland contains better or equal quality Black Cockatoo habitat and represents more preferable habitat than the small area of roadside vegetation in the Native Vegetation Clearing Area.

Carnaby's Cockatoo (*Calyptorhynchus latirostris*) (Endangered)

Carnaby's Cockatoo forage in native shrubland, kwongan heathland and woodland dominated by proteaceous plant species. They generally breed in woodland or forest, but also breed in former woodland or forest now present as isolated trees. The species nests in hollows in live or dead trees of salmon gum (*E. salmonophloia*), wandoo, tuart, jarrah (*E. marginata*), flooded gum (*E. rudis*), york gum (*E. loxophleba subsp. Loxophleba*), powderbark (*E. accedens*), karri and marri.

0.09 ha of high quality Carnaby's Cockatoo foraging habitat is proposed to be cleared from the Native Vegetation Clearing Area. A biological survey undertaken by Phoenix (2019) observed Carnaby's Cockatoo (calls) approximately 60 m east of the Native

Vegetation Clearing Area. Up to 3.58 ha of high-quality Marri Woodland foraging habitat was mapped within the 12.2 ha biological survey area (Phoenix Environmental, 2019) which extends outside of the Native Vegetation Clearing Area. Less than 2 % of mapped Marri Woodland habitat within the biological survey area (Phoenix Environmental, 2019) is proposed to be impacted by this Proposal.

More than 98% of the surveyed (Phoenix Environmental, 2019) Marri Woodland foraging habitat will remain immediately surrounding the Native Vegetation Clearing Area. Suitable foraging habitat was reported to occur extensively to the east of the biological survey area (Phoenix Environmental, 2019). Foraging habitat is well represented in the surrounding areas and the proposed clearing of 0.09 ha will not significantly impact this species.

Clearing of individual trees and a fragmented pocket of potential foraging habitat, will not significantly impact this species given the widespread availability of habitat suitable for Black Cockatoos species within the local area, in particular, the Bullsbrook Nature Reserve (as discussed above).

Peregrine Falcon (*Falco peregrinus*) (Other specially protected fauna)

Preferred habitat includes cliffs and wooded watercourses. Nesting occurs mainly on cliff ledges, granite outcrops, quarries and in trees with old raven or Wedge-tailed Eagle nests. This species may utilise the Native Vegetation Clearing Area for fly over while accessing a wide range of foraging area, however there are no key breeding or nesting habitat features available within the Native Vegetation Clearing Area and the species was not recorded during the survey. Clearing will not significantly impact this species.

Black-striped Snake (*Neelaps calonotos*) (Priority 3)

The Black-striped Snake is restricted to deep sands of coastal heaths and low shrublands on the Swan Coastal Plain, found mostly at long-unburnt sites. While some suitable habitat may occur in the Native Vegetation Clearing Area, this species was not recorded during the survey and habitat is well represented in the surrounding areas and the minimal clearing proposed will not significantly impact on this species.

Western Quoll (*Dasyurus geoffroii*) (Vulnerable)

The Western Quoll occupies a variety of habitats across its range including rocky areas, eucalypt forest and woodlands, sandy lowlands and beaches, shrubland, grasslands and desert. Rocky areas provide important denning habitat, while they forage in nearby grasslands and creek lines (DoEE 2018). While this species has the potential to occur in the Native Vegetation Clearing Area as an occasional transient, no evidence of the presence of this species was recorded during the survey and previous records are sparse between 2002 – 2016 and ~3.5 km southwest and ~13 km north of the survey area. The habitat type is well represented in the surrounding areas and the minimal clearing proposed will not significantly impact on this species.

	Quenda (<i>Isoodon fusciventer</i>) (Priority 4) The Quenda prefers scrubby, often swampy, vegetation with dense cover up to one metre high, often feeding in adjacent forest and woodland that is burnt on a regular basis and in areas of pasture and cropland lying close to dense cover. While this species has the potential to occur in the Native Vegetation Clearing Area, records of occurrence are infrequent in the Bullsbrook area, and no evidence of species presence was recorded during the survey. The habitat type in the Native Vegetation Clearing Area is well represented in the surrounding areas and the minimal clearing proposed will not significantly impact on this species. Species of conservation significance have the potential to occur in the Native Vegetation Clearing Area, however, are unlikely to rely on this area and would preferentially utilise surrounding areas of higher quality vegetation and habitat that is not directly adjacent to a busy highway. Clearing of 0.09 ha of native vegetation will not significantly impact species of conservation significance. Following the biological survey, Phoenix Environmental (2019) determined the entire survey area (12.2 ha) to be unlikely to represent critical habitat for any of these species. Clearing proposed will remove a small and fragmented patch of native vegetation that is not located within a corridor of vegetation essential to maintaining fauna habitat linkages either locally or regionally. The Native Vegetation Clearing Area does not comprise the whole or a part of, and is not necessary for the maintenance of, a significant habitat for fauna. The proposed clearing is not likely to be at variance to this Principle.
Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.	A desktop assessment of Threatened species that may occur within the Proposal Envelope was undertaken identifying the following four species as potentially occurring (Phoenix Environmental, 2019): • <i>Darwinia foetida</i> (VU) • <i>Eleocharis keigheryi</i> (VU) • <i>Grevillea curviloba</i> subsp. <i>curviloba</i> (EN, CR) • <i>Grevillea curviloba</i> subsp. <i>incurva</i> (CR). No Threatened species were recorded within the Native Vegetation Clearing Area during targeted searches completed during the biological survey (Phoenix Environmental, 2019) and subsequent Targeted flora survey undertaken by Main Roads' Botanist (MRWA, 2019). The proposed clearing is not at variance to this Principle.
Principle (d) – Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.	The desktop assessment for Threatened Ecological Communities conducted by Phoenix (2019) identified two mapped TEC boundaries that intersect the Native Vegetation Clearing Area. These are:

	- <i>Eucalyptus callophylla</i> – <i>Xanthorrhoea preissii</i> woodlands and shrublands, Swan Coastal Plain (Critically Endangered); - Shrublands and woodlands on Muchea Limestone (SCP3c) (Endangered). Phoenix (2019) have confirmed that no vegetation in the biological survey area was determined to represent any TECs. The status of vegetation aligning with either of the above TEC's identified during the desktop assessment is described as 'not present'. Whilst the removal of <i>Corymbia callophylla</i> as part of this Proposal is considered a dominant species of the SCP3c TEC, the most important criterion for this TEC is the presence of heavy soils. Even though the vegetation type CcXpHh comprised <i>Corymbia callophylla</i> – <i>Xanthorrhoea preissii</i> woodland, it was not recorded in the heavy soils. No heavy soils were found in the biological survey area and apart from the <i>Corymbia callophylla</i> taxa, only two other species that this TEC is typically composed of were present in the biological survey area. These were <i>Burchardia congesta</i> and <i>Briza maxima</i> which were not recorded in the Native Vegetation Clearing Area (Phoenix, 2019). The Shrublands and woodlands on Muchea Limestone TEC is not considered present in the Proposal Envelope as substrate is not present (Phoenix, 2019). No heavy soils and no limestone outcrops were found in the biological survey area (Phoenix, 2019). The vegetation type recorded within the Native Vegetation Clearing Area is not considered representative of any known TEC (Phoenix Environmental, 2019). The proposed clearing is not at variance to this Principle.
Principle (e) – Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.	The National Objectives and Targets for Biodiversity Conservation 2001-2005 (Commonwealth of Australia, 2001) recognises that the retention of 10% or more of the pre-clearing extent in constrained areas of each ecological community is necessary if Australia's biodiversity is to be protected. One Vegetation Association (Vegetation Association 4) has been identified within the Native Vegetation Clearing Area, with 27 % of the pre-European extent remaining. Based on the above, the proposed clearing of 0.09 ha of native vegetation will not significantly reduce the availability of this Vegetation Association. The proposed clearing is not at variance to this Principle.
Principle (f) – Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.	No Ramsar Wetlands, Nationally Important Wetlands or DBCA managed waters occur within the Native Vegetation Clearing Area. No surface water expressions are present within the Native Vegetation Clearing Area (Phoenix Environmental, 2018). Native vegetation proposed to be cleared is not growing in, or in association with an environment associated with a watercourse or wetland. The proposed clearing is not at variance to this Principle.

Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The Native Vegetation Clearing Area is located within the Reagan Land System (Phoenix Environmental, 2019) which is characterised by brown, yellow and pale sands that may be shallow to very deep with clay or duricrust underlying. The Atlas of Australian Soils (1991) describes the Native Vegetation Clearing Area as having hard acidic yellow soils containing ironstone gravels. The landscape slopes gradually to the west and the Native Vegetation Clearing Area is not located within areas subject to historic flooding, thus appreciable land degradation is not likely to occur due to surface water flows. 0.09 ha of degraded native vegetation will be cleared. This represents a minor proportion of vegetated surface at a local and regional scale. Given the existing soil type and minimal native vegetation clearing proposed, appreciable land degradation is not likely to occur. The proposed clearing is not at variance to this Principle.
Principle (h) – Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	There are two Reserves located adjacent to the Native Vegetation Clearing Area. These reserves will not be impacted by the proposed clearing: • Public Cemetery (Reserve Number 10788) • Public reserve used for recreation (Reserve Number 27583). Bush Forever Area 294 occurs adjacent to the Native Vegetation Clearing Area. The proposed native vegetation clearing of 0.09 ha of degraded vegetation will not impact on the environmental values of the adjacent Environmentally Sensitive Area (Bush Forever site 294). The proposed clearing is not at variance to this Principle.
Principle (i) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	The Native Vegetation Clearing Area does not intersect any mapped watercourses. No surface water expressions are present (Phoenix Environmental, 2018). Vegetation proposed to be cleared is not associated with a watercourse or wetland and clearing will not significantly alter current drainage patterns and therefore, will not cause deterioration in the quality of surface or underground water. The proposed clearing is not at variance to this Principle.
Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	The Native Vegetation Clearing Area is limited to a small patch of roadside vegetation that is surrounded by large areas of good quality native vegetation. It is unlikely that the minor clearing of isolated trees and a fragmented pocket of native vegetation alongside the existing road would cause or exacerbate, the incidence or intensity of flooding events. The proposed clearing is not at variance to this Principle.

Methodology Used and References:	Phoenix Environmental (2019) Main Roads Site Inspections (2019 & 2023: D19#709542 & D24#1060123) Atlas of Australian Soils (1991) Dataset DWER Dataset FPM Extent of Flooding (DWER-017) Landgate Cadastre Dataset LGATE-217 (2022) EPA (2016) Photographs of vegetation: Appendix 2 Shapefile of clearing area/trees: D24#934873
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9. REHABILITATION, REVEGETATION AND OFFSETS

Offset Proposal:	No offset proposal is required as the proposed native vegetation clearing will not result in significant residual impacts to native vegetation within the region.
Revegetation and Rehabilitation:	No temporary clearing will be undertaken as part of the Proposal activities.

10. COMPLIANCE WITH CPS818

The clearing associated with the proposal is not at variance with the Clearing Principles. Additional management actions under CPS 818 are detailed below.

Impact of Clearing	Yes/No or NA	Further Action Required
1. Proposal is within a Region that: - has rainfall greater than 400mm; and, - is South of the 26th parallel; and,	Yes	Standard Vehicle and Plant Management Actions Hygiene Checklists (D17#859669) and Vehicle, Plant and Machinery Hygiene Vehicle Register Template (D23#179551) will be applied
2. Do the proposed works require clearing within or adjacent to DBCA managed lands in non-dry conditions?	No	No further action required.
3. Main Roads has been notified by DWER or an environmental specialist that the area to be cleared is susceptible to a pathogen other than dieback.	No	No further action required.
4. Weeds are likely to spread to and result in environmental harm to adjacent areas of native vegetation that are in good or better condition.	No	No further action required.

Completed By:

Name	[REDACTED]
Signature	[REDACTED]
Job Title	Senior Environment Officer
Date	29/11/2024

DECISION ON CLEARING ASSESSMENT**Name**

[REDACTED]

Signature

[REDACTED]

Job Title

Senior Environment Officer

Date

02/12/2024

APPENDIX 1: NATIVE VEGETATION CLEARING AREA



APPENDIX 2: PHOTOGRAPHS



Photo 1: Looking north east from GNH towards Native Vegetation Clearing Area.



Photo 2: Looking east from GNH towards Native Vegetation Clearing Area.



Photo 3: Looking east from GNH/Rutland Rd intersection towards Native Vegetation Clearing Area.



Photo 4: Looking south east from GNH towards Native Vegetation Clearing Area.