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Clearing Assessment Report/ Vegetation Management Plan (VMP)

—
CPS 818

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Western Australia.*

Tanami Road Upgrade Stage 1
SLK 40-80 Road Alignment and
Material Areas

Tanami Road
Kimberley Region
EOS 2619

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1 PROPOSAL

1.1 Purpose and Justification

Tanami Road is a Local Government Road under the care and control of the Shire of Halls Creek. Recent flooding events from ex-tropical cyclone Ellie resulting in road closures has highlighted the urgency for regional road upgrades to be all weather to maintain connectivity of state and national road networks. In response to the Federal and State Governments committing funding to upgrade and seal the road to the Northern Territory Border, the Shire of Halls Creek has requested Main Roads Western Australia's (Main Roads) assistance in delivering the Project.

The existing road is unsealed and provides access to remote towns, Aboriginal Communities, and Mine Sites, and provides an alternative route into northern WA from the Northern Territory. Currently, the road is regularly closed during the wet season as it experiences frequent flooding thereby cutting off the communities it services. Tanami Road is constructed on hilly terrain with many tight corners and blind crests creating a safety hazard for road users and resulting in several fatalities over the years. The proposed upgrades and resealing of Tanami Road will reduce the safety risk, reduce road closures during the wet season, provide improved and safer access to remote towns, Aboriginal communities and mine sites, decrease ongoing maintenance activities and facilitate travel for locals and freight companies.

Tanami Road is over 300km in length, requiring substantial effort to undertake the upgrades which are likely to span over many years. This proposal covers the section of road between SLK 40 and 72 for sealing and realignment where road curvature is excessive and is compromising the safety of road-users. Additionally, this proposal includes material and water sourcing for use under this scope of works and to support future works in the region.

1.1.1 Main Roads Approach to Road Safety and the Environment

Main Roads is committed to minimising the environmental impacts of all of its activities and manages the State road network to achieve balanced economic, social, safety and environmental benefits for the community. Main Roads recognises that Western Australia's environment is significant from a global perspective and the unique conservation values that are contained within its road reserve. Main Roads road network often adjoins natural areas and, in some locations, the reserve itself hosts remnant vegetation with high environmental values. Although the reserves were not established for this purpose, Main Roads recognises that it has a responsibility to conserve the environmental values that occur within the State's road network and minimise the impact its proposals have on the environment. In addition to providing a safe and efficient road network for all people using the roads under its control, Main Roads is also committed to protecting the natural environment.

In accordance with National and State Government road safety policies, Main Roads is also committed to substantially reducing road trauma on the road network through Safe System principles. The Safe System approach acknowledges that more than two thirds of all serious crashes are due to human error rather than deliberate risk taking (e.g. speeding or drink driving) and seeks to improve behaviour through education and enforcement while managing the safety of vehicles, speeds and the road and road infrastructure. It is shown that improving sub-optimal road formation will substantially reduce the likelihood and severity of road crashes. For example, according to the Road Safety Management Guideline, increasing the sealed shoulder from 0.5 m to 2 m will reduce Killed and Seriously Injured numbers by more than 50%.

As the statutory authority responsible for providing and managing a safe and efficient main road network in Western Australia, Main Roads focuses on improving road safety by thoroughly considering all environmental, economic and community benefits and impacts. It operates on a hierarchy of avoiding, minimising, reducing and then, if required, offsetting our environmental impacts. This has been achieved through changes in proposal scope and design. Main Roads regularly reduces its clearing footprint by restricting earthworks limits for proposals, steepening batters, installing barriers, establishing borrow pits in cleared paddocks and avoiding temporary clearing for storage, stockpiles and turn around bays to avoid and minimise its impacts.

Further details on measures to avoid, minimise and reduce are provided in Section 1.5.

1.2 Proposal Scope

This proposal assesses the clearing of up to 94.2 ha of native vegetation within a 1,544.2 ha Development Envelope and includes the following works:

- Bores and Dams (associated Infrastructure);
- Material investigations and subsequent extraction between SLK 60-80;
- Laydown Areas;
- Road upgrade on existing alignment between SLK 40-72, with some minor realignments; and
- Side Tracks (where the road is to be upgraded on the existing alignment)

1.3 Proposal Location

The Development Envelope is located on the Tanami Road between SLK 40 and 80, within the Shire of Halls Creek as shown in Figure 1.

The central coordinate of the proposal is -18.742992° , 127.716417° .

1.4 Clearing Details

Proposed Clearing to be undertaken using CPS 818:

94.2 ha within a Development Envelope of 1,544.2 ha.

Areas of Native Vegetation Clearing:

The areas of native vegetation to be cleared are shown in Figure 1.

Note that these areas are indicative only, and clearing may occur anywhere within the Development Envelope, but will not exceed the clearing limit proposed (94.2 ha).

Type of Native Vegetation:

The type of vegetation to be cleared under this Proposal is comprised of native vegetation across 14 vegetation types as shown in Figure 2 Project Layout 1 to 5.

Figure 1. Indicative Clearing Area within the Development Envelope

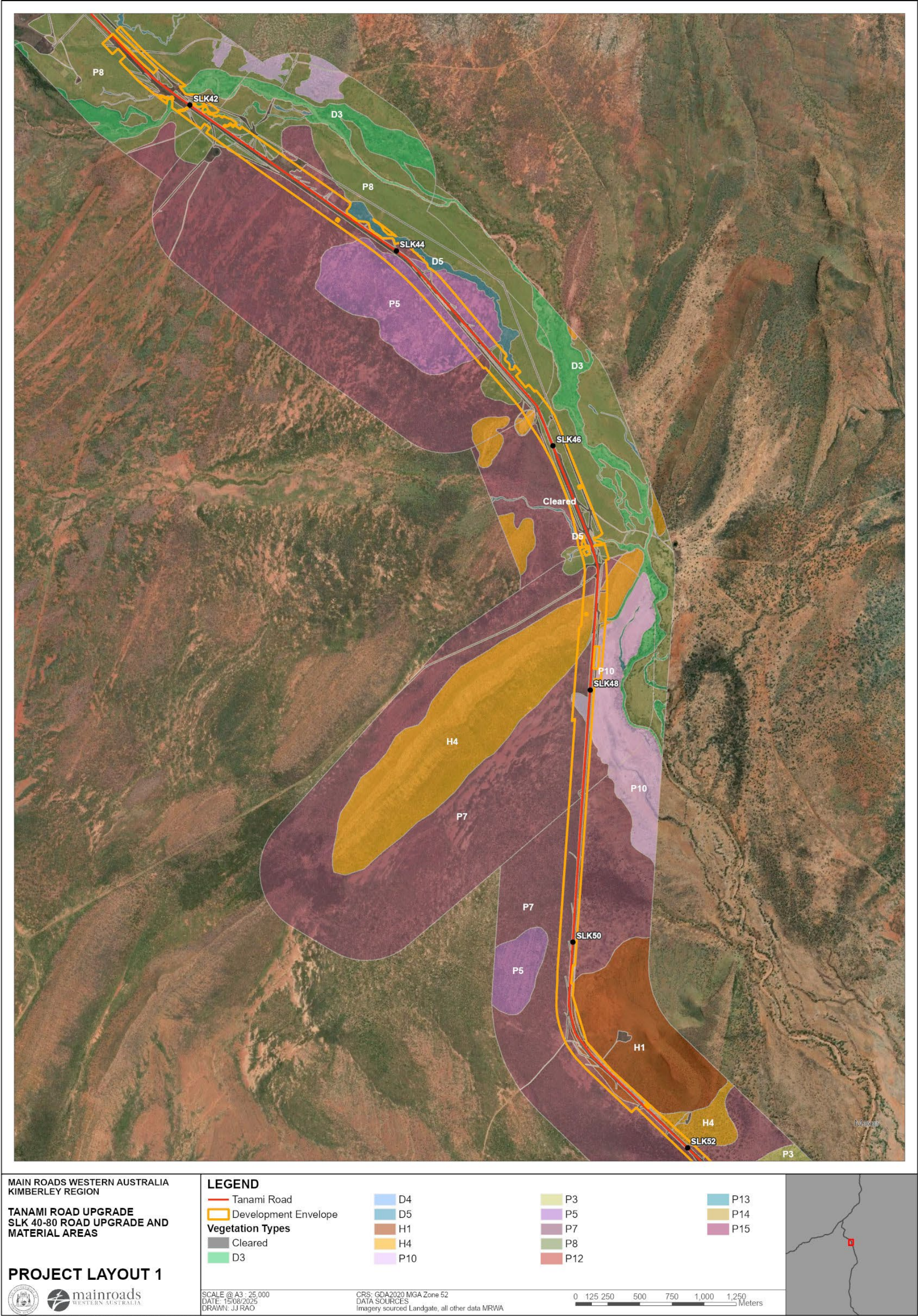


Figure 2A. Project Layout and vegetation types within the Development Envelope

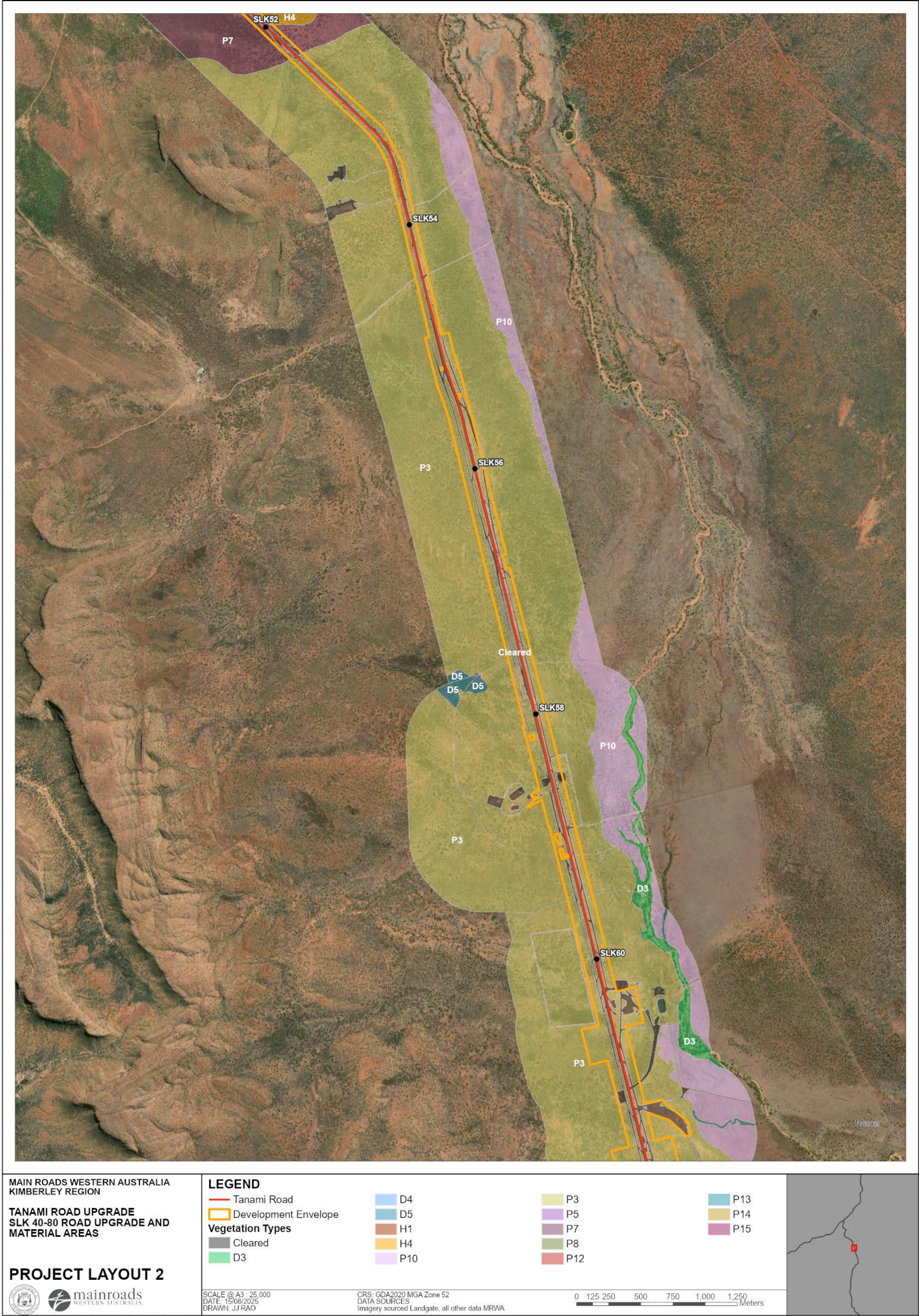


Figure 2B. Project Layout and vegetation types within the Development Envelope

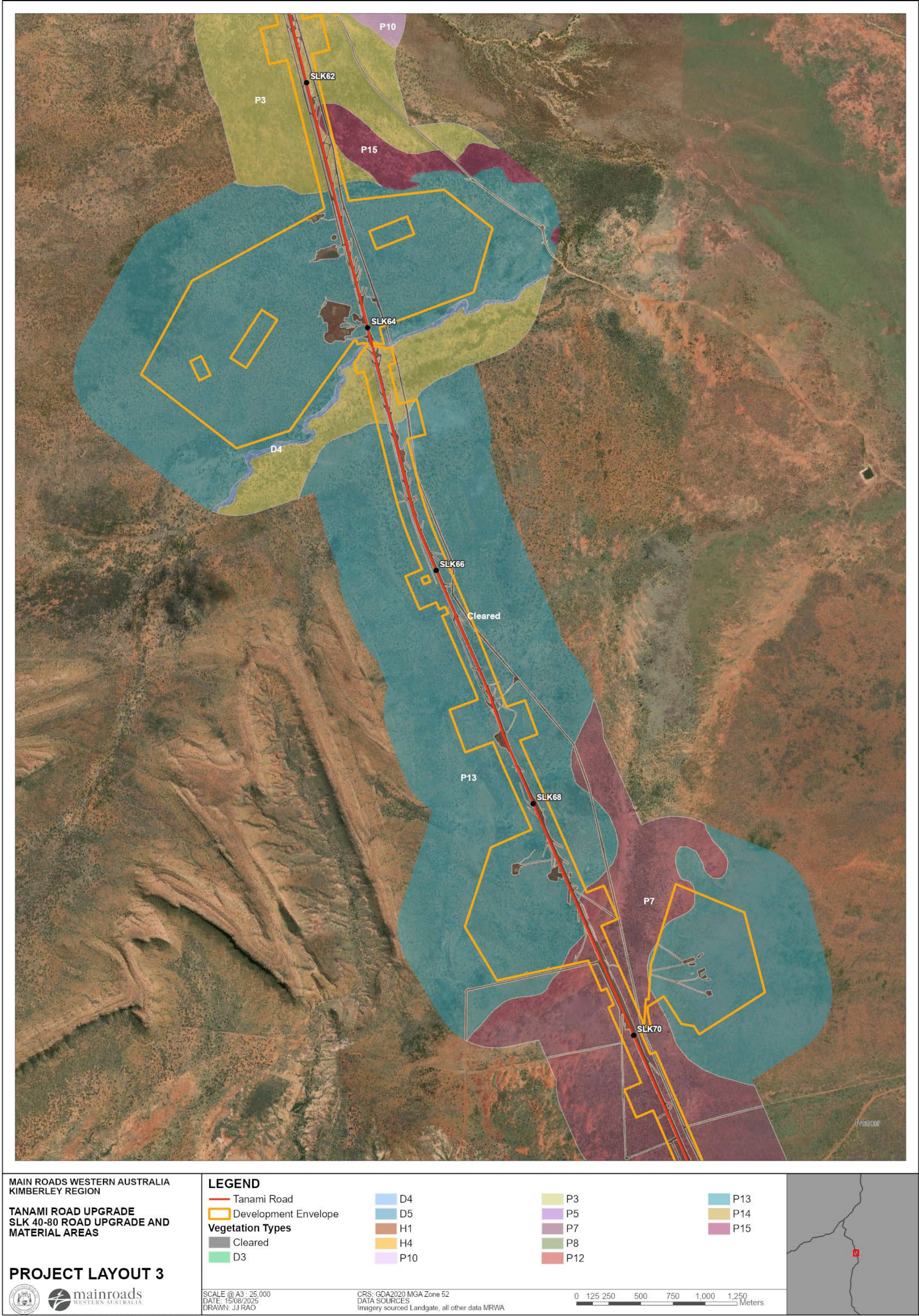


Figure 2C. Project Layout and vegetation types within the Development Envelope



Figure 2D. Project Layout and vegetation types within the Development Envelope

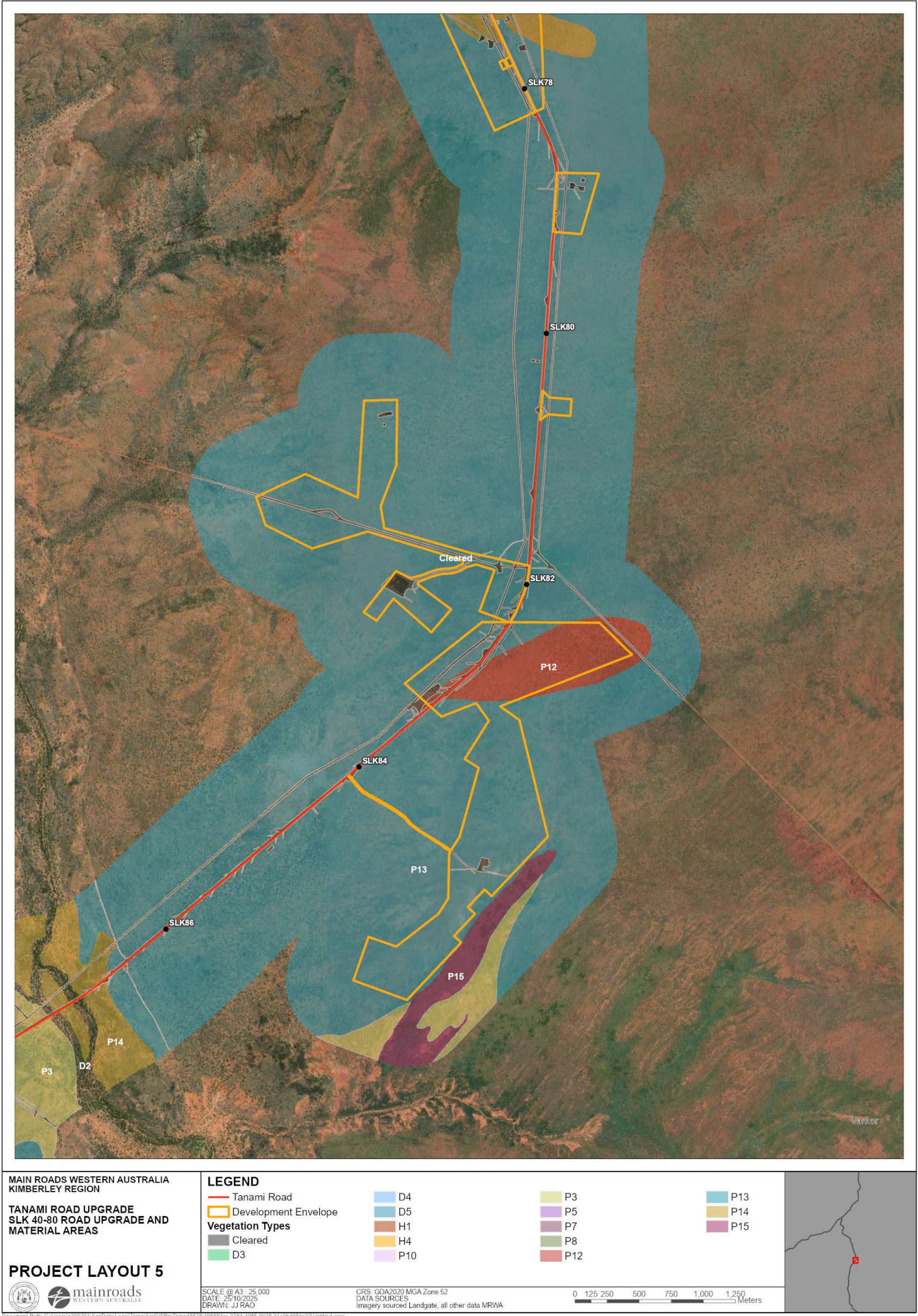


Figure 2E. Project Layout and vegetation types within Development Envelope

1.5 Alternatives to Native Vegetation Clearing Considered During Proposal Development

The proposed clearing is required to upgrade Tanami Road to an all-weather sealed road and realign areas where curvature exceeds road safety requirements.

The following alternatives to clearing were considered during the development of the proposal to upgrade the road:

- Preferentially locating the new alignment in cleared pasture areas over the existing road reserve, however this was considered impractical in the regional context as most cleared areas are occupied by existing infrastructure. Locating the proposed clearing in these areas would require the existing infrastructure to be relocated, nullifying any impact reductions.
- Upgrading other alternative routes that are less vegetated and environmentally constrained, however these are not suitable as there are no viable alternate roads that exist.
- Do not upgrade the road, however this will potentially result in a poorer safety outcome which may result in future fatalities or serious injuries, further degradation of the State's road assets and the prolonged isolation of remote towns and Aboriginal Communities during the wet season.
- 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.

1.6 Measures to Avoid, Minimise, Reduce and Manage Proposal Clearing Impacts

The design and management measures implemented to avoid and minimise the potential clearing impacts of the Proposal are provided in Table 1.

Table 1. Measures Undertaken to Avoid, Minimise, Reduce and Manage the Proposal Clearing Impacts

Design or Management Measure	Discussion and Justification
Alignment to one side of existing road	The proposed alignment currently aims to balance safety outcomes by maintaining a suitable curve geometry for a 110km/h rated sealed national highway as well as environmental impacts. Subsequently, alignment to one side of the existing road is not feasible, however the proposal does utilise large portions of the existing road. Experience on other projects where reconstruction of an unsealed road is required noted minimal reductions in clearing impacts when building along an existing road – for example, while clearing is reduced for the upgraded road itself, new clearing is still required for a construction detour, as the road must be kept open to the public, being the only means of access in remote areas. Furthermore, construction of a new road on an existing unsealed road typically requires more construction materials (fill/gravel) due to prolonged maintenance grading causing the level of the unsealed road to be below the level of the surrounding landscape. More clearing will be required for pits to supply the materials required, in addition to clearing required for drainage and detours. In such instances, building on a new alignment could be beneficial as less pit material is required, and the old road could function as a public detour during the construction, and for drainage following the construction of the works. The SLK 40-80 section of Tanami Road is relatively low lying, but not lower than the surrounding areas for the most part, therefore, the road will be built mostly on the existing alignment, using gravels that are currently on the road in sections. Where the road is proposed to be constructed off alignment on the side of the existing road, this is for the purpose of maintaining safe curve geometry or to avoid sensitive cultural sites at the request of Traditional Owners.
Development Envelope	Using a Development Envelope approach provides the flexibility needed on ground during construction to allow for: • avoidance of conservation significant flora where feasible; • avoidance of fauna habitat that cannot be pre-determined prior to on-ground mobilisation (e.g. for transient species such as the Bilby); • avoidance of any cultural material that may be identified during pre-construction inspections; and • re-allocation of clearing estimates based on project needs (e.g. relocation of an equivalently sized borrow pit site based on on-ground test results and availability of material).

Design or Management Measure	Discussion and Justification
Use of existing cleared areas for access tracks, construction storage and stockpiling	There are limited existing cleared areas within the Development Envelope adjacent to the existing Tanami Road, that do not already contain existing infrastructure such as fence lines, access tracks and existing gravel pits. The road alignment currently follows the existing cleared area of Tanami Road, with minor clearing required for an increased road width, to align with National Road Safety Standards. There is limited ability to place material areas in existing cleared areas. Most cleared areas off the road alignment are for station/pastoral infrastructure, which will need to be replaced if Main Roads uses these for material areas, negating any potential clearing reductions. However, where existing pits are in place, available material and the existing pit access points have been utilised to access the new material areas that are being developed under this assessment to reduce the overall clearing. As the road alignment makes use of existing cleared areas, the proposed Development Envelope reduces the amount of clearing of vegetation in Excellent condition.
Strategic Reduction and Exclusion of Areas of High Value	The proposed Development Envelope has been reduced from 1663 ha to approximately 1,544.2ha within which a maximum 94.2 ha of native vegetation is proposed to be cleared progressively over 2-3 years. The current proposed quantum of clearing is 6.1% of the entirety of the Development Envelope. The large size of the DE is predominantly related to large Material Areas as there is a large degree of uncertainty prior to testing if suitable materials will be present within these areas. Geotechnical investigations will avoid any unnecessary clearing of vegetation where material is not present. To limit the potential for impact on environmental sensitivities and in the selection of the Development Envelope, consideration was given to the following: • avoidance of culturally sensitive sites; • avoidance of areas with high population densities of Priority Flora (Figure 3); • avoidance of areas with high value vegetation growing in association with watercourses or wetlands; and • allowance for design amendments to reduce impacts to Priority Flora to as low as practicably possible.

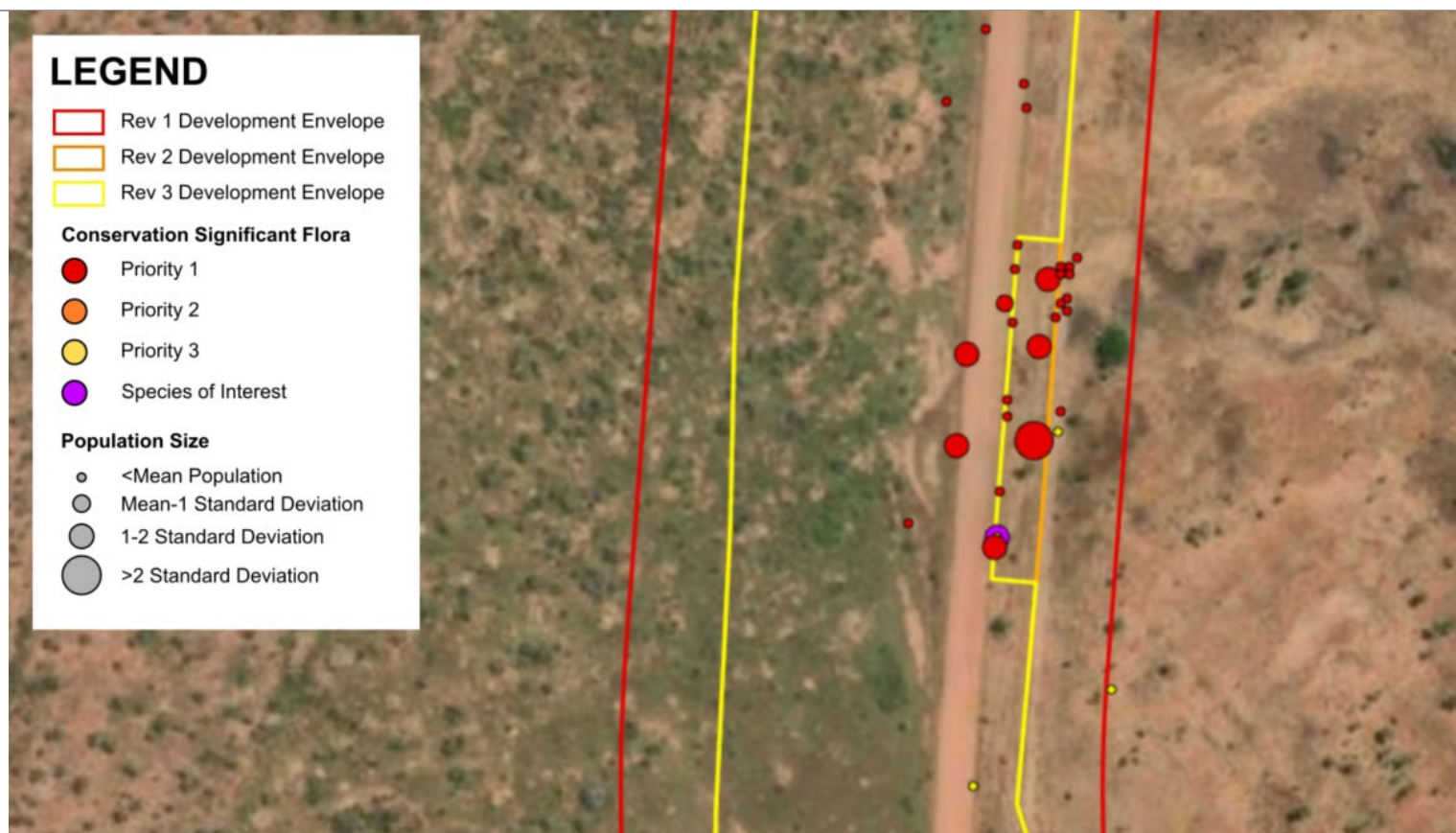


Figure 3. Example of Development Envelope design and refinement process

While the size of the Development Envelope has not changed significantly, the process undertaken to refine the Development Envelope has significantly reduced impacts to Priority Flora.

Design or Management Measure	Discussion and Justification
Alternate alignment located within pasture or degraded areas	The proposed alignment currently aims to balance environmental impacts and safety outcomes by maintaining suitable curve geometry for a 110km/h rated sealed national highway. The alignment is proposed to overlay the existing roads where possible. Some realignment is required between SLK 50 and 60 due to constraints relating to Aboriginal Heritage. Preliminary design revisions were undertaken with the specific aim of reducing environmental impact through minimising clearing required for the upgrade as well as reducing the amount of fill required, thereby reducing clearing for material pits. Clearing from the centreline has been reduced by 15% from the first concept design and subsequent impacts to Priority flora species has been considerably reduced through avoidance where possible without compromising road safety where realignments are necessary.
Stockpiling Topsoil	Topsoil will be collected and respread. This has been noted to be successful with improving the establishment of disturbance specialists such as <i>Goodenia</i>, <i>Glycine</i> and <i>Euphorbia</i> spp.
Fauna management	To reduce the potential for impacts on Bilby, pre-clearing checks for active Bilby burrows will be undertaken within the OSP that occurs to the south of SLK 60. Using a risk based and outcomes-based approach, areas of higher prospectivity for Bilby will be targeted as guided by survey reports (i.e areas to the south of SLK 60). Pre-clearing checks will be undertaken in the following manner: • Within 14 days before the commencement of clearing. • Main Roads will engage Traditional Owners, local Rangers and/or site Environment Officer to carry out pre-clearing checks. • Any active Bilby burrows will be avoided, with a 50m buffer applied until the burrow is no longer considered active (i.e. three consecutive nights of no footprints entering or exiting the burrow or any other signs of activity). • Where avoidance of active burrows is not possible, Main Roads will seek Section 40 authorisation under the <i>Biodiversity Conservation Act 2016</i> and engage a qualified fauna specialist to trap and relocate Bilby into areas of nearby suitable habitat.

1.7 Approved Policies and Planning Instruments

The clearing of native vegetation in Western Australia is regulated under the 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, Main Roads has also had regard to the below instruments where relevant.

Other Legislation potentially relevant 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 and D Act);
- *Soil and Land Conservation Act 1945* (WA);
- *Rights in Water and Irrigation Act 1914*; and
- *Aboriginal Heritage Act 1972* (WA).

Environmental Protection Policies:

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

Other relevant policies and guidance documents:

- Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (Government of WA, December 2014)
- Procedure: Native vegetation clearing permits (Government of WA, October 2019)
- Environmental Offsets Guidelines (Government of Western Australia, 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.

2 SCOPE AND METHODOLOGY ASSESSMENT OF CLEARING

Native vegetation will be cleared to accommodate this Proposal. This clearing will be undertaken using the Main Roads Statewide Clearing Permit CPS 818.

To comply with CPS 818, Main Roads must prepare a Clearing Assessment Report (CAR).

The CAR outlines the key activities associated with the Proposal, the existing environment and an assessment of native vegetation clearing. This assessment provides an evaluation of the vegetation clearing impacts associated with the Proposal using the ten Clearing Principles listed under s51 of the *Environmental Protection Act 1986* (EP Act) and strategies used to manage vegetation clearing.

2.1 Report Terminology and Sources

The following terms are used in this Clearing Report:

- **Native Vegetation Clearing Area** – The maximum amount of native vegetation to be cleared for the Proposal that will accommodate the designed earthworks and, typically, a nominal buffer to allow for the safe movement of machinery during construction. The Native Vegetation Clearing Area (hereafter referred to as the Clearing Area) for this Proposal is 94.2 ha.
- **Development Envelope** – The maximum extent within which the Clearing Area will be located. This envelope is larger than the Clearing Area and the Proposal Area to allow for minor changes to the Proposal footprint as the design process continues, and to account for minor and unexpected changes that may occur during construction, such as working to avoid a large tree or encountering buried boulders or services. This flexibility allows the site personnel to make modifications to the Proposal to avoid areas that may contain better environmental values. The CAR has assessed all environmental values within the Development Envelope as though all of these values will be impacted, up to the amount specified within the Clearing Area. The Development Envelope for this Proposal is 1,544.2 ha.
- **Species of Interest** – Species that do not match the taxonomy of any known species. They represent potentially novel species of new variants or subspecies of known species.
- **Study Area** – Area covered by the Desktop Assessment. The Study Area for the Proposal is confined to a local area of a 40km radius.
- **Survey Area** – Area covered by the Biological Survey, which is typically larger than the Development Envelope.

2.2 Desktop Assessment

A desktop assessment of the Development Envelope was undertaken by viewing internal datasets and other government agency managed databases, and consulting with relevant stakeholders where necessary.

GIS layer viewing and mapping is done using ArcMap and/or Main Roads corporate mapping system known as iMaps. Referencing of the GIS layers accessed is done under the relevant methodology section of each clearing principle. Government managed databases were searched to locate additional information, which are found under References in Section 10.

2.3 Surveys and Assessments

The following surveys/assessments were undertaken to inform this CAR:

- Detailed and targeted flora and vegetation surveys (Biota 2021a, 2021b, 2023, 2025, 360 Environmental 2022).
- Fauna surveys (Biota 2021a, 2021b; 2023, 2025).

Biological and targeted surveys conducted for the proposal are outlined in Table 2 and a summary of the findings in these reports are presented in Sections 3.1 to 3.2.

Approximately 20,000 ha has been mapped in surveys completed for the Tanami Road Upgrade as of 2025. Consistent mapping and nomenclature of vegetation types, fauna habitats and vegetation communities has been carried through the project since 2020, allowing for a consolidation of all biological survey mapping, with the most recent survey information referenced in this proposal.

Table 2. Summary of Biological and Targeted Surveys Relevant to the Proposal

Consultant and Survey Name	Survey Details
Biota Environmental Sciences (2025) Tanami Road Upgrades SLK 60-114 Biological Survey	Survey Area: Survey Area comprises 3,851 ha with a contextual mapped area of 10,769 ha, including both proposed road alignment and material areas. Areas of the Development Envelope between SLK 60 and 80 rely on this survey, including most of the material areas proposed. Type: Detailed flora and vegetation survey, targeted flora survey and basic and targeted fauna survey. Timing: Fieldwork was conducted between 14th April – 3rd May 2024. Survey Results Shapefile TRIM Ref: D25#122529 Document TRIM Ref: D24#1231391
Biota Environmental Sciences (2021a) Tanami Road Upgrade SLK 0-60 Biological Survey	Survey Area: Survey area comprised approximately 1650.7 ha and a contextual area of 5951.4 ha (7602.1 ha including survey area) adjacent along Tanami Road (SLK 0 – 60). This started at the Great Northern Highway (GNH) and Tanami Road intersection and continued for 60 km at varying widths between 200m and 500m wide. Areas between SLK 40 and 60 primarily rely on this survey. Type: Detailed flora and vegetation survey, targeted flora survey and basic and targeted fauna survey. Timing: Fieldwork conducted from the 23rd of May to 8th June 2020. Survey Results Shapefile TRIM Ref: D21#506928 Document TRIM Ref: D21#125420
360 Environmental (2022) Tanami Road Upgrade Targeted Flora Survey	Survey Area: Nine polygons (material pit locations) were surveyed along Tanami Road, totalling 58.2 ha in area. Type: Targeted Flora survey for the proposed Tanami Road Upgrade (SLK 0 – 60) within nine areas (proposed material pits and construction water dams) on Tanami Road. Timing: Fieldwork conducted on 21st – 25th May 2021 Survey Results Shapefile TRIM Ref: D21#1081780 Document TRIM Ref: D21#1081407
Biota Environmental Sciences (2021b) Tanami Road Upgrade and Great Northern Highway Material Pit Areas: Flora Survey	Survey Area: Survey Area comprises 44.20 ha on Tanami Road and 132.15 ha on GNH. Type: Targeted surveys for Priority flora species and other species of interest that were identified as occurring or potentially occurring, during the initial botanical survey in 2020. Timing: Fieldwork was conducted on 14th – 25th June 2021. Survey Results Shapefile TRIM Ref: D21#1219428 Document TRIM Ref: D21#1020020

Consultant and Survey Name	Survey Details
Biota Environmental Sciences (2023a)	Survey Area: Survey Area comprises 4563 ha on Tanami Road specifically for material areas between SLK 15 and 50. Type: Detailed flora and vegetation survey, targeted flora survey and basic and targeted fauna survey. Timing: May 2023 Survey Results Shapefile TRIM Ref: D23#913196 Document TRIM Ref: D23#913187

3 SURVEY RESULTS

Two biological surveys are most relevant to this proposal, as the Development Envelope straddles both survey areas (Biota 2021a; 2025).

3.1 Summary and Analysis of Flora and Vegetation Surveys (Biota 2021a)

The “Tanami Road Upgrade SLK 0-60 Biological Survey” was conducted from the 23rd of May to 8th June 2020 by Biota Environmental Sciences covering an area of 1650.7 hectares. The spatial scopes for the biological survey comprised a survey area (200-500 m from road corridor), a contextual area (500 m buffer around the survey area) and the study area (40 km buffer around the survey area). A desktop flora and fauna assessment were undertaken for the study area, followed by a field survey which comprised a detailed and targeted flora and vegetation survey and a basic and targeted fauna survey of the survey area.

Vegetation

A total of 13 vegetation types were identified from the survey area, associated with drainage lines, plains and hills. None of the vegetation types represent listed Threatened Ecological Communities (TECs), or Priority Ecological Communities (PECs). The vegetation type P10 shares some similarities to the two tussock grassland communities in the study area that are listed as PECs however, vegetation in the Development Envelope is not considered representative of any PEC. Two vegetation types from drainage line habitats (D3 and D4) were considered to represent Groundwater Dependent Ecosystems. Only 0.1 ha of each of these vegetation types is present in the Development Envelope and may be cleared.

Flora

A total of 414 native vascular flora species from 165 genera and 57 families were recorded from the survey area. No Threatened flora were recorded. Five species were confirmed to be Priority species, while a sixth was tentatively identified as such. These comprised two P1 species- *Goodenia lunata* and *Pentalepis trichodesmoides* subsp. ? *incana*; one P2 species – *Ipomoea racemigera*; and three P3 species – *Glycine falcata*, *Goodenia crenata* and *Trachymene dusenii*. Nine taxa recorded were designated as “Species of Interest” as they may be new (undescribed) species or cannot be referred to any known taxa recognised for Kimberley. A total of 26 weed species were recorded, including one significant weed species **Calotropis procera* (Calotrope) which is a Declared Plant and was found scattered through plains and drainage lines throughout the survey area. Within the Development Envelope, four Priority 4 species and four Species of Interest were recorded.

Fauna

A combined total of 114 species of vertebrate fauna were recorded, including 10 mammals, 9 bats, 72 birds, 20 reptiles and 3 amphibians. No fauna species of conservation significance were recorded, however a cluster of burrows and diggings potentially belonging to Bilby *Macrotis lagotis* (VU) was recorded from the contextual area about 10 km to the south of the southern end of the Development Envelope. The assessment concluded that 8 fauna species of conservation significance were considered likely to occur within the survey area. These included: Ghost Bat *Macroderma gigas* (VU), Grey Falcon *Falco hypoleucos* (VU), Peregrine Falcon *Falco peregrinus* (OS), Fork-tailed Swift *Apus pacificus* (MI), Oriental Plover *Charadrius veredus* (MI), Oriental Pratincole *Glareola maldivarum* (MI), Gravel Dragon *Cryptagama aurita* (P1) and Yellow-lipped Cave Bat *Vespadelus douglasorum* (P2). A further 17 fauna species of conservation significance may occur within the survey area.

Nine fauna habitats were described for the survey area of which the *Acacia monticola* tall open scrub (AMS) was considered to have the highest local significance due to its potential provision of habitat for Bilby, however this restricted habitat occurs about 10 km to the south of the Development Envelope. The Open shrubland/woodland on spinifex plains (OSP) has the potential to provide some habitat for Bilby where *Acacia* species are present that contain root-dwelling larvae. However, Biota (2021a) concludes this is low prospectivity and is likely to occur to the south of the survey area, outside the Development Envelope.

3.2 Summary and Analysis of Flora and Vegetation Surveys (Biota 2025)

The “Tanami Road Upgrade SLK 6-114 Biological Survey” was conducted from the 14th April to the 3rd May 2024 by Biota Environmental Sciences covering an area of 3,851 hectares. The spatial scopes for the biological survey comprised a Survey area (200-500 m from road corridor), a contextual area (500 m buffer around the survey area) and the study area (40 km buffer around the survey area). A desktop flora and fauna assessment were undertaken for the study area, followed by a field survey which comprised a detailed and targeted flora and vegetation survey and a basic and targeted fauna survey of the survey area.

Vegetation

The vast majority of the survey area comprised broad level to gently undulating plains, with a few low stony hills and a small number of major drainage lines (including two tributaries of Wolfe Creek). Seven vegetation types were identified for the plains, generally comprising open vegetation of scattered eucalypts and other trees over mixed shrubs dominated by a variety of wattles (*Acacia* spp.), over a ground cover of mixed hummock grasses and/or tussock grasses. The low stony hills were always dominated by hummock grasses but otherwise supported similar vegetation to the surrounding plains and were therefore included within the latter units. The major drainage lines comprised riparian woodlands dominated by River Red Gum (*Eucalyptus camaldulensis*) and/or *Eucalyptus limitaris*, with Wild Plum (*Terminalia platyphylla*) in places over mixed tussock grasses.

Vegetation in the majority (79%) of the survey area was in Very Good to Excellent condition, with only scattered weeds and few signs of grazing impacts. The northernmost section and areas in proximity to Tanami Road were in poorer condition, being more intensively grazed and/or having higher concentrations of weeds.

None of the vegetation types represent listed Threatened Ecological Communities or Priority Ecological Communities, however the two units from major drainage lines in the survey area (D2 and D4) comprise groundwater dependent ecosystems. D2 is not present within the Development Envelope and only 0.4 ha of D4 is present.

Flora

A total of 419 native vascular flora species from 185 genera and 66 families were recorded from the survey area.

No Threatened flora species were recorded and none are known to occur in the region, however 10 Priority flora species occur in the survey area. Nine Priority species were recorded during the survey, some of which were not previously known to occur in the locality: *Goodenia lunata* (P1) and *G. crenata* (P3) (including *G. a. crenata*), both of which were abundant in the survey area; and *Eriachne armitii* (P1), *Trachymene villosa* (P1), *Eragrostis confertiflora* (P3), *Ipomoea racemigera* (P3), *Owenia acidula* (P3), *Rothia indica* subsp. *australis* (P3), and *Stylidium* sp. nov. (*a. cordifolium*) (a future P3), all of which were recorded from only one or a small number of locations. An additional P1 species,

Portulaca sp. finely echinate (D.G. Tulloch 41), was not recorded during the field survey but is likely to occur, at least in the northern section of the survey area.

A total of 20 weed species were recorded, including one Declared Pest: Calotrope (**Calotropis procera*), recorded as single plants at two locations.

Fauna

Five fauna habitats were identified in the survey area, with the plains habitat clearly dominant:

- Open shrubland / woodland on spinifex / tussock grass plains;
- Low stony hills with occasional rocky outcropping;
- Major drainage lines and associated tributaries;
- Artificial water sources; and
- Cleared/degraded areas.

A total of 136 vertebrate fauna species were recorded in the survey area during the field survey, comprising 16 mammals (including nine bat species), 97 birds, 17 reptiles, and six amphibians. These included three conservation significant fauna species: Bilby (*Macrotis lagotis*; Vulnerable under the BC Act and EPBC Act), Glossy Ibis (*Plegadis falcinellus*; Migratory under the BC Act and EPBC Act), and Peregrine Falcon (*Falco peregrinus*; Other Specially Protected Fauna under the BC Act). Based on the desktop study and the habitat assessments undertaken during the field survey, a further five conservation significant vertebrate species are likely to occur in the survey area; and another 26 conservation significant species may occur, many of which are migratory bird species.

3.3 Summary and Analysis of Fauna Surveys

A combined total of 113 species of vertebrate fauna were recorded, including 19 mammals, 10 bats, 79 birds, 13 reptiles and two amphibians. Two conservation significant fauna species: the Gouldian Finch (*Chloebeia gouldiae*) and Freshwater Crocodile (*Crocodylus johnstoni*) were recorded. Likelihood of occurrence assessments based on the desktop study results and an assessment of habitats undertaken during the field survey indicated that a further five conservation significant vertebrate species are likely to occur in the survey area, while 17 may occur. Many of these are noted to be migratory bird species.

Two taxonomic groups with the potential to include short-range endemic (SRE) species were recorded within the survey area (seven mygalomorph spiders and three araneomorph spiders). Three taxa have not been recorded previously and are therefore currently known only from the survey area likely due to a lack of survey effort.

Six fauna habitats were described for the survey area, the most well represented being habitat associated with low rolling stony hills, and the least being cracking clay plains and a man-made dam. It is worth noting the least representative habitats recorded are the least preferable for material areas.

No additional fauna of conservation significance was found in the southernmost Development Envelope as part of the surveys completed in 2024 (Biota 2025).

4 VEGETATION DETAILS

4.1 Development Envelope Vegetation Description

Table 3 and Table 4 provide details of the vegetation types and their condition within the Development Envelope and the remaining extents of these associations, as recorded from the various surveys carried out on the Tanami Road.

Table 3. Summary of Vegetation Types within Development Envelope

Veg Type	Description (Biota 2021a; 2025)	Surveyed Extent (ha)	Extent in Development Envelope (ha)	DE Maximum Potential Impact (ha)** (% Surveyed Area)
Hills				
H1	<i>Eucalyptus brevifolia</i> , <i>Corymbia opaca</i> scattered low trees to low open woodland over <i>Triodia intermedia</i> hummock grassland	2257.7	4.9	4.9 (0.22%)
H4	<i>Eucalyptus brevifolia</i> low open woodland over <i>Triodia</i> sp. (TAN07-02/34), <i>T. epactia</i> open hummock grassland.	188.2	7.3	7.3 (3.86%)
Plains				
P3	<i>Corymbia opaca</i> , <i>Bauhinia cunninghamii</i> , <i>Atalaya hemiglauc</i> a scattered low trees to low open woodland over <i>Dichrostachys spicata</i> , <i>Carissa lanceolata</i> scattered tall shrubs over <i>Triodia epactia</i> very open hummock grassland and/or mixed very open tussock grassland.	1456.6	138.8	138 (9.5%)
P5	<i>Corymbia opaca</i> , <i>Eucalyptus brevifolia</i> scattered low trees over <i>Triodia intermedia</i> open hummock grassland	1852.6	62.8	62.8 (3.39%)
P7	<i>Eucalyptus brevifolia</i> , <i>Bauhinia cunninghamii</i> scattered low trees to low open woodland over <i>Dichrostachys spicata</i> , <i>Carissa lanceolata</i> , * <i>Vachellia farnesiana</i> tall open shrubland over <i>Triodia intermedia</i> very open hummock grassland and/or * <i>Cenchrus</i> spp., <i>Chrysopogon fallax</i> open tussock grassland	1172.2	98.1	98.1 (8.4%)
P8	<i>Acacia synchronicia</i> , * <i>Vachellia farnesiana</i> , <i>Carissa lanceolata</i> scattered shrubs to tall open shrubland over <i>Chrysopogon fallax</i> , <i>Dichanthium fecundum</i> , * <i>Cenchrus</i> spp. Open tussock grassland	500.7	32.3	32.3 (6.2%)
P10	<i>Eriachne festucacea</i> , <i>Dichanthium fecundum</i> tussock grassland.	294.7	3.3	3.3 (1.11%)
P12	<i>Corymbia opaca</i> scattered low trees over <i>Acacia</i> sp. Urandangie (L. Pedley 2025), <i>Grevillea pyramidalis</i> subsp. <i>leucadendron</i> , <i>Grevillea wickhamii</i> tall open shrubland over <i>Triodia epactia</i> hummock grassland	2187.1	46.6	46.6 (2.13%)
P13	<i>Eucalyptus brevifolia</i> low open woodland over <i>Acacia</i> sp. Urandangie (L. Pedley 2025) tall	5635.3	802.9	229.2 (4.1%)

Veg Type	Description (Biota 2021a; 2025)	Surveyed Extent (ha)	Extent in Development Envelope (ha)	DE Maximum Potential Impact (ha)** (% Surveyed Area)
	open shrubland over <i>Triodia epactia</i> and/or <i>T. intermedia</i> hummock grassland and <i>Eulalia aurea</i> , <i>Chrysopogon fallax</i> , <i>Aristida inaequiglumis</i> very open tussock grassland			
P14	<i>Eucalyptus brevifolia</i> and/or <i>Corymbia opaca</i> scattered low trees over <i>Acacia lysiphloia</i> tall open scrub over <i>Triodia intermedia</i> , <i>T. epactia</i> open hummock grassland with mixed open tussock grassland	646.8	103.1	103.3 (15.95%)
P15	<i>Acacia colei</i> var. <i>colei</i> tall open scrub over <i>Eulalia aurea</i> , <i>Chrysopogon fallax</i> , <i>Heteropogon contortus</i> , <i>Eriachne obtusa</i> tussock grassland	82.8	1.3	1.3 (1.5%)
D3	<i>Eucalyptus camaldulensis</i> open woodland	136	1.7	1.7 (1.1%)
D4	<i>Eucalyptus camaldulensis</i> , (<i>E. limitaris</i>) woodland	106.0	0.4	0.4 (0.4%)
D5	<i>Eucalyptus limitaris</i> , <i>Terminalia volucris</i> low open woodland	324.3	4	4.0 (1.2%)
	CLEARED	689.5	243.6	243.6 (35.3%)
TOTAL			1,544.2ha	N/A

** DE Maximum Potential Impact is the maximum amount of the vegetation type that could be cleared from the Development Envelope for this scope of works based on up to 94.2 ha of clearing.

Table 4. Pre-European Vegetation Representation

Pre-European Vegetation Association	Scale	Pre-European Extent (ha)	Current Extent (ha)	% Remaining	% Current Extent in DBCA Managed Land (proportion of pre-European Extent)
Veg Assoc No. 91 (38.58 ha)	Statewide	438,282.66	437,621.56	99.85	18.96%
	IBRA Bioregion Ord Victoria Plain	168,408.21	168,408.21	100.00%	49.35%
	IBRA Sub-region South Kimberley Interzone	24,908.76	24,908.76	100.00	0.12%
	Local Government Authority Shire of Halls Creek	438,105.03	437,621.56	99.89%	18.97%
Veg Assoc No. 837 (207.2 ha)	Statewide	172,815.95	172,553.02	99.85%	0%
	IBRA Bioregion Ord Victoria Plain	21,278.563	21,278.56	100%	0%
	IBRA Sub-region South Kimberley Interzone	21,182.37	21,182.37	100%	0%

Pre-European Vegetation Association	Scale	Pre-European Extent (ha)	Current Extent (ha)	% Remaining	% Current Extent in DBCA Managed Land (proportion of pre-European Extent)
	Local Government Authority Shire of Halls Creek	151,971.74	151,708.81	99.83%	0%
Veg Assoc No. 847 (25.1ha)	Statewide	71,106.64	71,106.64	100%	60.55%
	IBRA Bioregion Ord Victoria Plain	71,106.64	71,106.64	100%	60.55%
	IBRA Sub-region South Kimberley Interzone	4,632.67	4,632.67	100%	0.19%
	Local Government Authority Shire of Halls Creek	71,106.64	71,106.64	100%	60.55%
Veg Assoc No. 849 (1024.5ha)	Statewide	481,753.04	481,753.04	100%	4.05%
	IBRA Bioregion Ord Victoria Plain	459,303.88	459,303.88	100%	4.25%
	IBRA Sub-region South Kimberley Interzone	459,169.85	459,169.85	100%	4.24%
	Local Government Authority Shire of Halls Creek	481,753.04	481,753.04	100%	4.05%
Veg Assoc No. 850 (10.6 ha)	Statewide	313,937.85	313,254.33	99.78%	5.46%
	IBRA Bioregion Ord Victoria Plain	312,736.75	312,517.52	99.93%	5.48%
	IBRA Sub-region South Kimberley Interzone	310,210.22	309,990.99	99.93%	4.79%
	Local Government Authority Shire of Halls Creek	312,722.51	312,507.99	99.93%	5.48%
Veg Assoc No. 873 (1.3 ha)	Statewide	117,433.73	117,433.73	100.00%	0%
	IBRA Bioregion Ord Victoria Plain	117,433.73	117,433.73	100.00%	0%
	IBRA Sub-region South Kimberley Interzone	117,069.62	117,069.62	100.00%	0%
	Local Government Authority Shire of Halls Creek	117,433.73	117,433.73	100.00%	0%
Veg Assoc No. 899 (191.9 ha)	Statewide	6,053.74	6,053.74	100.00%	0%
	IBRA Bioregion Ord Victoria Plain	6,053.74	6,053.74	100.00%	0%
	IBRA Sub-region South Kimberley Interzone	6,053.74	6,053.74	100.00%	0%
	Local Government Authority Shire of Halls Creek	6,053.74	6,053.74	100.00%	0%

4.2 Flora of Interest

The Development Envelope contains four Priority Flora taxa along with four flora species of interest, recorded by Biota (2021a; 2025).

Table 5. Priority Flora and Species of Interest present within the Development Envelope

Taxa (Biota 2021a; 2025)	Surveyed Population ¹	SLK 40-80 DE Maximum Potential Impact (% Remaining Population)
Priority 1		
<i>Goodenia lunata</i>	29,678	2,273 (7.66%)
<i>Portulaca</i> ? sp. finely echinate (D.G.Tulloch 41)	48	2 (4.17%)
Priority 3		
<i>Glycine falcata</i>	390	6 (1.54%)
<i>Goodenia crenata</i>	388,715	55,226 (14.21%)
Species of Interest		
<i>Euphorbia ferdinandii</i> var. ?appendiculata	25	1 (4%)
<i>Pittosporum</i> aff. <i>angustifolium</i>	4	1 (25%)
<i>Sida</i> sp. (TAN01-17)	70	16 (22.85%)
<i>Triodia</i> sp. (TAN07-02/34)	Dispersed within 188.2 ha (H4) ³	7.3 ha (H4) (3.86%)

¹ Total Population as determined by surveys carried out (Biota 2021a; 2021b; 2023; 2025; 360 Environmental 2022; Main Roads Western Australia 2022)

4.3 Fauna Habitats Description

Fauna habitat extents recorded from the Development Envelope are detailed in Table 6 (Biota 2021a; 2025). Six fauna habitat types excluding cleared areas were identified within the Development Envelope by Biota (2021a; 2025).

Table 6. Summary of Fauna Habitat Types within Development Envelope

Habitat	Description (Biota 2021a; 2025)	Surveyed Extent (ha)	Extent in Development Envelope (ha)	DE Maximum Potential Impact (ha) (% Surveyed Area)
Fauna Habitats				
RBS	Ridgeline breakaways and scree slopes	233.5	7.1	7.1 (3.04%)
OSP	Open woodland / shrubland on spinifex grass plains	12,809.7	1,184.5	94.2 (0.74%)
OGP	Open woodland / shrubland on tussock grass plains	654.8	30.67	30.67 (5.49%)
LOD	Low open degraded plains	938.8	64.19	64.19 (6.8%)

Habitat	Description (Biota 2021a; 2025)	Surveyed Extent (ha)	Extent in Development Envelope (ha)	DE Maximum Potential Impact (ha) (% Surveyed Area)
LSH	Low stony hills dominated by spinifex	4,001.6	4.8	4.8 (0.12%)
MDL	Major Drainage Lines	544.0	0.2	0.2 (3.68%)
Cleared	Cleared / Degraded areas	587.0	243.6	239.7 (40.83%)
Total			1,544.2	N/A

5 ASSESSMENT AGAINST THE TEN CLEARING PRINCIPLES

In assessing whether the Proposal's proposed clearing is likely to have a significant impact on the environment, the Proposal was assessed against the ten Clearing Principles (EP Act, Schedule 5).

Each principle has been assessed in accordance with the former Department of Environment Regulation (now Department of Water and Environmental Regulation (DWER) '*A Guide to the Assessment of Applications to Clear Native Vegetation*' (Department of Environment Regulation, 2014) and other relevant clearing permit application decision reports prepared by DWER.

The proposed clearing is at variance to Principle (f), and is not at variance, or not likely to be at variance, to the remaining Clearing Principles.

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Proposed clearing is not likely to be at variance to this Principle.

The following metrics are used as indicators of high biological diversity (as described in DER 2014):

1. Biodiversity hotspots
2. Flora and Fauna species diversity
3. Priority and other Significant Flora
4. Priority Fauna
5. Ecological Community Diversity
6. Significant Ecological Communities
7. Vegetation Condition

An assessment of the Development Envelope against the above metrics has been undertaken to ascertain the level of biological diversity.

Biodiversity Hotspots

The Development Envelope is not located in a Biodiversity Hotspot (DER 2014).

Species Diversity

A high number of flora species has been recorded by Biota across the two surveys that are relevant to this scope of works. The high species numbers are from large survey areas and is likely due to a number of other factors including:

- The linear nature of the survey area, running perpendicular to local landforms intersecting a range of habitats;
- The length of the corridor crossing a broad geographic range; and
- Very high rainfall received prior to the survey resulting in optimal collecting conditions.

Species diversity within the Development Envelope overall is lower than that of the surrounding areas due to the following:

- Most of the clearing proposed is adjacent to or in close proximity to an existing major road and/or existing gravel pits that are subject to disturbance and edge effects (as noted in weed data collected by Biota (2021a);
- Previous surveys identified there are areas of higher biological diversity in the surrounding areas, notably in the vicinity of Duncan Road, approximately 28 km to the northeast of the Development Envelope (Biota 2021c);
- The proposed clearing has been designed to avoid where possible, areas containing conservation significant species and therefore, impacting less diverse areas.

Furthermore, the current extent of pre-European vegetation associations within the Development Envelope retain above 99% at all scales (State IBRA Bioregion, IBRA Subregion, LGA). Species diversity is expected to be higher in areas beyond the Development Envelope that have not been subject to disturbance or indirect impacts from adjacent ground disturbance and clearing activities.

Priority and other Significant Flora

No known records of Threatened flora taxa were identified from the project study area, and no Threatened flora were recorded during the biological survey by Biota (2021a; 2025) nor during any other surveys carried out on Tanami Road and surrounds during ideal survey conditions (Biota 2021b; 2021c; 2023; 360 Environmental 2022).

The Development Envelope contains four Priority (P) Flora taxa and four Species of Interest (SI):

- *Goodenia lunata* (P1): 2,273 individuals;
- *Portulaca* ? sp. finely echinate (D.G.Tulloch 41) (P1): 2 Individuals;
- *Glycine falcata* (P3): 6 individuals;
- *Goodenia crenata* (P3): 55,226 individuals;
- *Euphorbia ferdinandii* var. ?appendiculata (SI): 1 Individual;
- *Pittosporum* aff. *angustifolium* (SI): 1 Individual;
- *Sida* sp. (TAN01-17) (SI): 16 Individuals; and
- *Triodia* sp. (TAN07-02/34) (SI): dispersed across 7.3 ha within a single vegetation type (H4).

Detailed project planning has avoided areas containing conservation significant species where possible. All species have been recorded as occurring beyond the Development Envelope and will not be significantly impacted by the proposed clearing.

Conservation significant fauna

Three species of conservation significant fauna were detected within 40km of the Development Envelope during Biota's 2021, 2023 and 2025 surveys:

- Gouldian Finch (*Chloebia gouldiae*; Priority 4);
- Freshwater Crocodile (*Crocodylus johnstonii*; Other Specially Protected); and
- Bilby (*Macrotis lagotis*; Vulnerable).

Only the Bilby was detected within the Development Envelope through inactive secondary evidence (Biota 2025) at one location within the Development Envelope in the OSP habitat type. As discussed further below, this habitat type is expansive beyond the Development Envelope and the proposed clearing will not significantly reduce locally available habitat.

The Development Envelope does not contain core habitat for Gouldian Finch or Freshwater Crocodile given the location of this proposal is on the southern edge of the known distribution of Gouldian Finch and there are no permanent water bodies to support the long term presence of Freshwater Crocodile.

Survey records demonstrate a higher number of fauna species occur beyond the Development Envelope indicating a high level of biodiversity.

Ecological Diversity

Fourteen vegetation types occur within the Development Envelope (Table 3). Tanami Road is a linear infrastructure corridor running approximately north to south, perpendicular to the landforms in the area, hence the intersection of numerous vegetation types.

All of the vegetation types within the proposed clearing area are not restricted and are well represented beyond the Development Envelope.

No Environmentally Sensitive Areas (ESAs) or Threatened Ecological Communities (TECs) were identified in the 40km radius desktop database searches, nor were any recorded during the field survey by Biota (2021a; 2025; DBCA 2024b).

The desktop assessment identified four Priority Ecological Communities (PECs) from the project Study Area:

- **Priority 1 - Vegetation Association 872** as defined by John Beard's vegetation mapping for the Kimberley (Beard 1979): Described as "Hummock grasslands, sparse tree steppe; snappy gum over hard spinifex *Triodia wiseana* and *T. intermedia* on basalt and dolerite" (DBCA 2021);
- **Priority 3 - Vegetation Association 850** as defined by John Beard's vegetation mapping for the Kimberley (Beard 1979): Described as "Grasslands, tall bunch grass savanna, mitchell & blue grass" (DBCA, 2021);
- **Priority 3 - Vegetation Association 834** as defined by John Beard's vegetation mapping for the Kimberley (Beard 1979): Described as "Grasslands, tall bunch grass savanna, mitchell & blue grass" (DBCA, 2021); and
- **Priority 3 - Gordon land system:** Described as "Low hilly to undulating limestone country on inland and coastal erosional plains" (DBCA 2021).

None of the vegetation types recorded during the Biological Survey carried out by Biota, (2021a; 2025) represent TECs or PECs. None of these Vegetation Associations are mapped as occurring within the Development Envelope (Table 3).

Biota (2021a) noted that vegetation type P10 has some similarity to tussock grassland PECs, however determined the P10 within the surveyed areas would not be considered a PEC. Significant areas of P10 are available beyond the Development Envelope.

Fauna Habitat Diversity

Biota (2023a) identified six fauna habitats as occurring within the Development Envelope (Table 6). The fauna habitat type with the highest occurrence in the Development Envelope is the OSP habitat.

All of the fauna habitats to be impacted are well represented beyond the Development Envelope and have been recorded from the surrounding areas (Biota 2021a; 2021b; 2023; 2025). An additional three fauna habitat types were recorded during the survey and occur outside of the Development Envelope.

Vegetation Condition

The Development Envelope contains a proportionately higher amount of vegetation in 'Poor' or worse condition to that of the surveyed areas beyond the Development Envelope. This is primarily due to the Development Envelope being located in an area with extensive pastoral activity.

As the area surrounding the Development Envelope contains a significantly higher proportion of vegetation in 'Good' or better condition and a higher number of conservation significant flora and fauna species and the presence of Priority Ecological Communities, the Development Envelope is less diverse than the overall surrounds.

Based on the above, the Development Envelope does not comprise an area of high biodiversity. The proposed clearing is not likely to be at variance to this Principle.

Methodology

ALA (2024)
360 Environmental (2022)
Biota (2025)
Biota (2023a)
Biota (2021a)
Biota (2021b)
Biota (2021c)
DBCA (2021)
DBCA shapefiles
DER (2014)
Government of WA (2019)
Main Roads GIS Shapefiles
Western Australian Herbarium (1998-)

(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.

Proposed clearing is not likely to be at variance to this Principle.

Six fauna habitat types out of nine recorded by Biota (2021a) will be impacted by the proposed clearing: RBS, OSP, OGP, LOD, LSH and MDL (Table 6).

As evident from Table 6, the mapped fauna habitats are widespread throughout the larger survey area and the Development Envelope represents only a small fraction of available extent of each of these habitats. It is highly unlikely that the maximum potential amount of clearing detailed in Table 6 will be conducted within each fauna habitat type due to the nature of the clearing proposed, so the actual impact will be significantly lower.

Three species of conservation significant fauna were detected within 40km during Biota's surveys, the Gouldian Finch (Priority 4), Freshwater Crocodile and the Bilby (Biota 2021a; 2023a; 2025).

Gouldian Finch (P4)

While the Gouldian Finch may occur in the Development Envelope in areas of open woodland with larger eucalypts over spinifex, the maximum impact of clearing of habitat that may be utilised by the Gouldian Finch is 0.6% of the surveyed extent (Table 6; RBS, OSP and LSH habitats). Tanami Road is located on the southern edge of their known distribution and is not considered to be core habitat (ALA 2025; Birdlife 2022; DCCEEW 2024b).

The proposed clearing will not significantly impact this species.

Freshwater Crocodile (Specially Protected)

The Freshwater Crocodile occurs primarily in freshwater areas upstream of the tidal influence, occasionally entering brackish tidal areas (Webb et. al. 1987; Swanson 2019). This species was recorded in the Survey Area, but outside of the Development Envelope. Suitable habitat does exist in the Development Envelope, comprising the Major Drainage Line and associated tributaries (MDL) habitat type, and Biota postulates that the species could occur wherever there is suitable habitat.

However, as there are no permanent water bodies, the species may only opportunistically use the MDL (Major Drainage Line) habitat, during periods of flooding. Assuming the species were to use MDL habitat, the maximum loss of potential habitat from the proposed clearing is at most 0.2 ha, or 0.04% of that habitat available in the Surveyed Area. The Freshwater Crocodile would occur in more favourable habitat such as habitats associated with permanent water and natural water bodies, where it was recorded from in Biota's 2023 survey.

The proposed clearing will not significantly impact this species.

Bilby (Vulnerable)

Bilbies occupy a range of habitats across their distribution, including open tussock grassland on uplands and hills, mulga woodland/shrublands on ridges and rises, and hummock grasslands on plains and in alluvial areas, requiring sandy soils suitable for burrowing (DCCEEW 2023).

The Bilby was detected through secondary evidence at one location within the DE, in the OSP habitat type (an active burrow; Biota 2025). OSP habitats north of SLK 60 were recorded as low prospectivity for Bilby (Biota 2021a). The species was also recorded from the AMS habitat type, which does not occur inside the Development Envelope. The OSP habitat type is the most common habitat present on the Tanami Road and is extensively available beyond the Development Envelope. When assuming all clearing would occur within the OSP habitat, a very small proportion of surveyed available habitat will be impacted (0.74% of surveyed extent). Clearing will not be limited to this habitat type and therefore any impacts will not be significant.

Pre-clearing inspections will be undertaken in areas of potential Bilby habitat to further reduce the potential for impact. The proposed clearing will not significantly impact this species.

Other Species Identified in Desktop Assessments

A likelihood of occurrence assessment of all significant species identified in the desktop assessment was undertaken by Biota based on availability of suitable habitat and previous known records in the study area (Biota 2023a). These species were targeted in field surveys but were not recorded.

Excluding species that were recorded, the assessment indicated that five conservation significant species were considered 'likely' to occur and 27 species 'may' occur within the survey area.

Migratory species have not been further assessed based on the following grounds:

- All species generally occur in coastal, marine or wetland environments, none of which are present in significant amounts within the Development Envelope. 0.2 ha of the MDL habitat type in the Development Envelope may occasionally support these species, however there is significantly more suitable habitat outside the Development Envelope (Table 6).
- All species have a broad distribution across most of northern Australia (DCCEEW 2024b). The clearing of 0.2ha of potential habitat will not result in a significant impact to the species.

The potential for impacts to species considered 'likely' to occur or 'may' occur within the Development Envelope is assessed below. Beyond the Survey Areas, habitat estimates are determined from two additional sources:

- The Department of Primary Industry and Regional Development (DPIRD) Soil Landscape mapping (Land Systems Units) for statewide and regional extents; and
- The Department of Climate Change, Energy, the Environment and Water (DCCEEW) Species of National Environmental Significance modelled distribution mapping (SNES) for national extents.

Species

Critically Endangered (EPBC Act 1999) or BC Act 2016

Tiliqua scincoides intermedia

The Northern Blue-tongue Skink occupies a range of habitats within its distribution such as monsoonal rainforest, eucalypt woodland and tussock grasslands, with most records occurring near water (DCCEEW 2023b). The Development Envelope is located in the southern edge of the species' modelled distribution and was determined by Biota as potentially occurring (Biota 2024).

While relatively common within its historical distribution, local declines of up to 95% have been noted in areas of Cane Toad presence, justifying its status as a Critically Endangered species (DCCEEW 2023b).

Cane toads have been present in the area of the Tanami Road for over 10 years (Shine et al. 2018) and therefore it's quite unlikely that this species persists in the area in detectable numbers. Surveys by Biota in the Halls Creek area on both the Tanami and Duncan Roads (2021a; 2021b; 2021c, 2023 and 2024) failed to detect the species. Recent surveys completed by Main Roads on the Great Northern Highway just north of Halls Creek (50km north of the Development Envelope) also have not detected the species (Biota 2023b; Ecologia 2021a; 2021b).

Impacts to this species are not considered likely because:

- Habitat preference for the species is very broad in relation to the relatively small amount of clearing proposed; and
- It is unlikely that the species would occur in detectable numbers within the Development Envelope, given that eight fauna surveys in the area have failed to detect this species.

Endangered (EPBC Act 1999) or BC Act 2016

Erythroriorchis radiatus

The Red Goshawk is found in a variety of habitats across Northern Australia; foraging habitat is noted as being coastal and sub-coastal tall open forests and woodlands, tropical savannas traversed by wooded or forested creeks and rivers, freshwater wetlands and margins as well as the edges of rainforests. Breeding habitat is generally described as areas with large, tall trees (>14m) within proximity to a watercourse (TSSC 2023).

The species has not been detected on the Tanami Road during the 2023 survey nor during any other surveys carried out by Main Roads. The habitats present in the Development Envelope, mainly RBS (ridgeline breakaways and scree slopes), OGP (open woodland/shrubland on tussock grass plains) and LOD (low open degraded plains) do not specifically meet the TSSC habitat criteria. RBS and LOD are not considered as foraging nor breeding habitat, while the OGP habitat type is representative of sub-tropical savanna.

No Red Goshawks were recorded during the 2023 or any other surveys. Biota notes that there is potentially suitable foraging habitat in the MDL (major drainage line) and LSH (open woodland on low rolling hills habitat). While both habitats exist in the Development Envelope, the maximum potential impact from the proposal on surveyed extents is 0.04% for MDL and 0.12% for LSH.

Any impact on this species would not be significant.

Rostratula australis

The Australian Painted Snipe occurs in freshwater (occasionally brackish) wetlands, generally with a good cover of grasses, rushes, reeds, low scrub, open timber or samphire (TSSC 2013). There are no records within the Desktop Assessment Area, with the closest being 60km to the east along the Margaret River. Biota notes that the species may occasionally be a visitor to the surveyed areas, owing to there being potentially suitable habitat in Major Drainage Lines (MDL) as well as in artificial water sources.

It is unlikely that the Development Envelope would provide any suitable habitat for the following reasons:

- The only habitat present that could remotely represent a wetland environment is the MDL (Major Drainage Line) habitat, of which only a very small amount (0.2 ha or 0.04% surveyed extent) exists in the Development Envelope.
- The MDL habitat within the Development Envelope is generally devoid of significant fringing vegetation that is required as breeding habitat (Biota 2021a; 2025).
- There are areas of significantly more suitable habitat in the surrounding area, such as at Sturt Creek which drains into Lake Gregory, a location with confirmed historical records of the species.

Vulnerable under EPBC Act 1999 or BC Act 2016

Falco hypoleucos

There is one record in the Atlas of Living Australia (ALA) database within 40km of the Development Envelope, the collection details of which are unreliable (ALA 2025). The species frequents timbered low land plains that are crossed by tree-lined watercourses (TSSC 2020). Grey Falcon nests usually in the tallest trees along watercourses between June and November, particularly River Red Gum (*Eucalyptus camaldulensis*) and Coolibah (*E. coolabah*) (DAWE, 2021b). No Grey Falcon were detected during biological surveys. While they may utilise all of the fauna habitats within the Development Envelope for foraging, Major Drainage Lines (MDL) and Associated Tributaries would be the most utilised habitat. Based on the height of the trees present within the Development Envelope and limited area of these habitat types, this species would preferentially visit areas outside of the Development Envelope that contain more preferential habitat features.

Any impacts on this species would not be significant.

Liopholis kintorei

In the northern Tanami Desert, the Great Desert Skink occurs in paleodrainage country vegetated with *Melaleuca glomerata* and *Triodia pungens* (TSSC 2016a). Populations elsewhere display different habitat affinities. Western populations in the Gibson Desert occur in lateritic downs and plains, while eastern populations in the central Northern Territory occupy lateritic sand plains. While there is significant genetic divergence in the species, all populations clearly show an affinity to sandy, gravelly and loamy soils in paleodrainage or saline areas.

This species is not likely to be impacted by the works based on:

- The Development Envelope being located on the northern edge of the modelled distribution (DCCEEW, 2025b), with no records within 40 km; and
- Potentially suitable habitat exists south of the Development Envelope, but not within the Development Envelope.

Macroderma gigas

There is a single record of this species within the Desktop Assessment area, in 1964 from Palm Springs on the Duncan Road, located 27km to the north east (ALA 2025). The Palm Springs area was surveyed by Biota in 2021 as part of the Duncan Road Project Upgrade and consists of the MDL habitat type (Biota 2021c).

Ghost Bats are known to occur in a broad range of landforms, with distribution influenced by the availability of suitable caves for roost sites (TSSC 2016b). The record from Palm Springs was found within the Land Unit of the Wickham System, broadly described as 'Rugged stony country formed on sedimentary rocks widespread in the Ord-Victoria survey area' (Schoknecht and Payne 2011). The Land Systems present within the Development Envelope have considerably less potential for suitable roosting sites, being described as:

- Barry System: gently undulating red soil 'desert' with shrub vegetation;
- Winnecke System: Low linear or rounded hills and associated valley floors;
- Geebee System: Lateritic Plains with gravelly red soils'; and
- O'Donnell System: Undulating plains and scattered low hills on granite and gneiss.

On the Tanami Road, no Ghost Bats nor suitable roost caves for the species were detected during the biological survey despite targeted searches being undertaken (Biota 2021a; 2025). If present, Ghost Bats may forage within the Development Envelope in the MDL habitat type (Major Drainage Lines) and Associated Tributaries, however any impact would be negligible.

DBCA Priority Listing

Cryptagama aurita

There are two historical records of the species approximately 20km from the Development Envelope collected in 1979. The species is known to occur in the north-eastern interior of WA and in the adjacent Northern Territory and has only been recorded on stony gibber soils with spinifex (Wilson and Swan 2021).

This species was not recorded during the biological surveys. Biota notes that there is potentially suitable habitat in certain areas of the MDL (major drainage line) and LSH (open woodland on low rolling hills habitats; Biota 2023a).

The soils within the Development Envelope are broadly described as (Schoknecht and Payne 2011):

- Barry System: Unit 1 (Very gentle slopes with some poorly defined dunes) – Camil brown sandy loam merging into dark red clay, sandier on low dunes;
- Winnecke System: Unit 2 (gently sloping valley floors) – cockatoo – deep red sandy soil;
- Geebee System: Unit 2 (gently lower slopes) – brown sandy loam merging into dark red clay over laterites.
- O'Donnell System: Unit 3 (interfluvies) – reddish sandy and loamy skeletal soils with shallow brownish sands and loams over red clay.

While areas of MDL and LSH habitats do exist in the Development Envelope, the amounts are very small - 0.2% and 0.12% respectively. The closest soil type that could be suitable is associated with the Geebee System which contains gravelly soils. The estimated impact to this System is 0.06% of its mapped extents (Schocknecht and Payne 2011).

Impacts, if any, to this species would not be significant because:

- This species has not been detected in any of the five Biological surveys carried out in the local area (Biota 2021a; 2021b; 2021c; 2023a; 2024); and
- The impact to potentially suitable habitat in the regional area is extremely low at 0.06% of mapped extents.

Dasycercus blythi

The Brush-tailed Mulgara prefers spinifex grasslands on sandplains and sandy swales, where they dig deep burrows and are usually solitary (van Dyck and Strahan 2008). The Development Envelope is located on the very northern edge of the species' potential distribution, and Biota did not find the species during targeted surveys.

Any impact on this species would not be significant based on the small amount of clearing of OSP habitat that may provide suitable habitat for this species.

Elanus scriptus

The Letter-winged Kite occurs in arid and semi-arid grasslands, open country and timbered watercourses, breeding and roosting in trees (Biota 2024). Biota noted that there is limited habitat in the Development Envelope but due to the broad preference of habitat, the species 'may occur'.

Any impacts on this species would be negligible, given the extent of available habitat available beyond the Development Envelope.

Lagorchestes conspicillatus leichardti

The Spectacled Hare-wallaby occurs in tropical spinifex or tussock grasslands with mid-dense tree and shrub cover. While not detected, this species 'may occur' (Biota 2024). Suitable habitat for the species would be considered as being the OSP and OGP habitats, which are extensively available beyond the Development Envelope.

Any impacts on this species would be negligible.

Vespadelus douglasorum

There are two historical records of the species collected in 1965 that are 20 km from the Development Envelope. This species is restricted to the Kimberley region and the Desktop Assessment Area is located in the southernmost extent of records (Atlas of Living Australia, 2025).

This species was not detected during the analysis of the ultrasonic sound recorders deployed during the survey (Biota 2021a; 2025). No core roosting habitats (caves) occur within the survey area, and Biota notes that 'occurrence within the survey area would be dependent on the presence of suitable roost sites in the taller hills outside of the survey area and contextual area' (Biota 2021a; 2025). Based on the lack of potential habitat and the availability of suitable habitat beyond the Development Envelope, this species is unlikely to be impacted by the proposed clearing.

DBCA Other Specially Protected

Falco peregrinus

There are multiple records of this species in the Desktop Assessment Area from the ALA Database (location unreliable; ALA 2025). This species inhabits a wide range of habitats including forest, woodlands, wetlands and open country and nest in cliff faces, tree hollows and along rivers between August and December (Australian Museum 2025). The species was detected within the Development Envelope by Biota in 2024, where one individual was 'observed in open plains adjacent to a creek line'. The open plains forms part of the Development Envelope, while the creek line in question is located outside of the Development Envelope.

The Development Envelope may provide foraging habitat due to the broad habitat preference of the species. The species may use some areas of the D3 and D4 vegetation types as nesting habitat, as there is the potential for larger tree species (e.g. *Eucalyptus camaldulensis*).

Any impact on this species would be negligible based on the extent of available habitat beyond the Development Envelope.

***Leggadina lakedownensis* (P4)**

The Short-tailed Mouse occupies a range of habitats, including areas of open tussock and hummock grassland, acacia shrubland and savanna woodland on, alluvial clay or sandy soils (Lee 1995; Moro & Kutt 2008). No records were found within 50km, but the species has been recorded to the north and south.

Within the Development Envelope, suitable habitat could include the OSP, OGP and LOD habitats, noting that while the LOD habitat has suitable clayey-sandy soils, it is in poor condition from grazing and cattle impacts, making it less favourable.

Any impacts on this species would be negligible given its broad occurrence throughout Northern Australia.

While a number of species have the potential to occur in the Development Envelope, the proposed clearing is not likely to have a significant impact on any of these species given:

- Minimal roosting or breeding habitat may exist within the Development Envelope, and species are more likely to occur only as transient visitors, or for foraging; and
- The amount of habitat being cleared is a very small proportion of the available habitat in the surrounding area; and
- The habitat within the Development Envelope is of poorer quality than that found in areas outside the Development Envelope; and/or
- Five fauna surveys over four years did not record the presence of these species.

The proposed clearing spread across 40km reduces the size of clearing areas and is primarily located in areas adjacent or close to the existing roads or material pits because of the nature of the works. Beyond the Development Envelope are vast areas of available fauna habitat not subject to disturbance and therefore, more likely preferred by fauna. With extensive fauna habitat available both locally and regionally, the Development Envelope 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.

Methodology

Atlas of Living Australia, (2025)
Australian Museum, (2021)
Australian Museum, (2025)
Biota, (2023a)

DAWE, (2021b)
DBCA shapefiles
DCCEEW 2024b
DoEE (2018)
EPBC Act Protected Matters Search Report 26/10/2024
Main Roads GIS Shapefiles
Species Profile and Threats Database (September 2024)
Wilson and Swan (2021)

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.

Proposed clearing is not at variance to this Principle.

The Desktop Database Searches (Main Roads ArcGIS files and PMST report) identified no known records of Threatened flora listed under the *Biodiversity Conservation Act 2016* from the project 40km radius desktop search.

The Biological Survey undertaken by Biota, (2021a; 2024) and other surveys in the locality did not record any Threatened flora taxa (Biota 2021b; 2023a; 360 Environmental 2022; Main Roads Western Australia 2022).

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology

360 Environmental, (2022)
Biota, (2024)
Biota, (2023a)
Biota, (2021a)
Biota, (2021b)
DBCA shapefiles

(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.

Proposed clearing is not at variance to this Principle.

The Desktop database searches (PMST report and DBCA Shapefiles) show no known records of Threatened Ecological Communities (TECs) from within the project 40 km radius desktop search (DBCA 2024b; DCCEEW 2025).

Vegetation communities recorded during the Biological Survey carried out by Biota are not representative of any TECs (Biota 2021a; 2024).

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology

Biota, (2024)
Biota, (2023a)
DBCA, (2021)
DCCEEW, (2025)

(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.

Proposed clearing is not at variance to this Principle.

As evident from Table 4, the current extent of pre-European remnant vegetation is significantly greater than 30% of the "National Threshold Level" at all levels (State IBRA Bioregion, IBRA Subregion, LGA). All of the vegetation associations have greater than 99% of their pre-European extent remaining intact. As such, the project is not located in an area of regionally significant remnant vegetation. Given that the vegetation associations are widespread throughout the area and are well represented, the proposed clearing will not impact native vegetation that is significant as a remnant in an area that has been extensively cleared.

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology

EPA (2016)

Government of Western Australia (2019)

ARCGIS Shapefiles - Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Proposed clearing is at variance to this Principle.

The Development Envelope contains three vegetation types that are mapped in association with watercourses or wetlands (D3, D4, D5; Biota 2021a; 2024; Table 3).

- D3 – Maximum Potential Impact of 0.1 ha (0.09% surveyed extents)
- D4 – Maximum Potential Impact of 0.1 ha (0.05% surveyed extents)
- D5 – Maximum Potential Impact of 0.2 ha (0.05% surveyed extents)

The clearing proposed represents a very small proportion of the mapped areas of these vegetation types, with the largest impact being 0.2 ha or 0.05% of the surveyed extents of D5. Combined, the maximum potential impact of all vegetation types growing in association with watercourses or wetlands is 0.4 ha, or 0.07% of surveyed extents.

The areas of riparian vegetation to be cleared are in unavoidable areas, where edges of the mapped extents come into contact with potential realignments on the project.

Because the proposal does involve the clearing of vegetation growing in association with watercourses or wetlands, the proposed clearing is at variance to this Principle.

Methodology

- Biological Survey (Biota 2023a; 2025)
- Government GIS shapefiles:
 - Watercourses (Accessed 13 January 2025; DWER 2018b)

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Proposed clearing is not likely to be at variance to this Principle.

The project is in an area prone to severe rainfall events, which could contribute to land degradation via flooding and heavy runoff. The proposed clearing is distributed over 40km, limiting the size of cleared areas and reducing the likelihood of land degradation. Material pit locations are based around areas of existing pits.

To minimise the potential for land degradation to occur:

- the clearing of native vegetation will be restricted to occurring in dry conditions; and
- the clearing will be carried out in a staged manner over several years.

The proposed clearing is within a region where more than 99% of pre-European extent remains at all levels and is located within an area mapped as cq(p4) - Extremely Low Probability of Occurrence of Acid Sulfate Soils (CSIRO 2014).

The proposed clearing distributed over 40km is unlikely to interrupt or significantly alter natural surface water flows.

The majority of clearing will be undertaken within the following Land Systems:

- Barry System: gently undulating red soil 'desert' with shrub vegetation;
- Winnecke System: Low linear or rounded hills and associated valley floors;
- Geebee System: Lateritic Plains with gravelly red soils; and
- O'Donnell System: Undulating plains and scattered low hills on granite and gneiss.

The Barry, and Geebee Systems are considered to have a low or very low susceptibility to erosion, according to rangeland surveys carried out by the then Department of Agriculture and Food WA (Shoknecht and Payne 2011).

The Winnecke System's valley floors and overall O'Donnell System, is considered to have a moderate susceptibility to erosion, owing to the occurrence of extensive areas of cracking clay plains, drainage systems, and interfluvies with loamy, sandy soils over clays. Shoknecht and Payne (2011) estimate that around 76% of the Land System area is comprised of these 'Land Units'. However, the proposed clearing occurs in a less extensive Land Unit characterised by hills and ridges where outcrops with limited areas of shallow gravelly skeletal soils occur, the target soil type for road building materials. These soil types are less susceptible to erosion and as such, the proposed clearing is not likely to cause appreciable land degradation.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology

CSIRO, (2014)

Main Roads ArcGIS Shapefiles

Shoknecht and Payne, (2011)

(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.

Proposed clearing is not at variance to this Principle.

The Ord River Regeneration Reserve, an area of DBCA-managed Conservation Estate established to revegetate a degraded portion of the Ord River catchment and reduce downstream siltation, is the closest conservation area, and is located more than 11 km from the Development Envelope. The Regeneration Reserve will not be impacted by the proposed clearing given the distance of separation. The proposed clearing will not impact any buffers, ecological linkages or outliers to a conservation area. Subsequently there will be no impact to the environmental values of any conservation areas.

The proposed clearing is not at variance to this Principle.

Methodology

DBCA shapefiles - Legislated Lands and Waters (DBCA 2023)

(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.

Proposed clearing is not likely to be at variance to this Principle.

The Development Envelope falls entirely within the Sturt Creek catchment which is not a Proclaimed Area under the *Rights in Water and Irrigation Act 1914* (DWER 2018c). The area from which clearing is proposed represents a very small proportion of the total catchment size of over 70,000 km² within Western Australia alone (the Sturt Creek catchment crosses over into the Northern Territory) and will not significantly impact surface water quality.

The Halls Creek Water Reserve, a Public Drinking Water Source Area is located 35 km north-east of the Development Envelope and will not be impacted.

Clearing of native vegetation will not intersect any large surface water bodies, nor any watercourses mapped by the Department of Water and Environment Regulation (DWER 2018b). The Development Envelope intersects ten minor, non-perennial watercourses according to mapping by Geoscience Australia (Geoscience Australia 2015). The Development Envelope is not in a proclaimed Surface Water Area and the clearing is limited to the vicinity of the existing Tanami Road and material pits.

The clearing of 94.2 ha across 40 km within a wider 1,544.2 ha Development Envelope further reduces the likelihood of the deterioration in the quality of surface water.

The proposed clearing is not likely to be at variance to this Principle.

Methodology

ARCGIS shapefiles- Watercourse
DWER, (2018b; 2018c)
DWER, (2024)
Geoscience Australia, (2015)

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Proposed clearing is not likely to be at variance to this Principle.

The subregional climate is described as dry winter and hot semi-arid summer with an average annual rainfall of 468.2 mm (Ruby Plains (Site ID- 2026) (BoM, 2025)). Extreme weather events are a significant component of the Kimberley climate. Tropical cyclones and tropical storms can bring heavy and sustained rainfall, particularly in the months leading up to and during the wet season. It is common for a large proportion of the region’s rainfall to be recorded in one single event, leading to extensive flooding of rivers, creeks and roadways.

The climatic conditions are the main factor influencing flooding in the region. The proposed clearing of 94.2 ha distributed across approximately 40km will be undertaken progressively and during dry conditions. It is unlikely the proposed clearing will cause or exacerbate the incidence or intensity of flooding.

The proposed clearing is not likely to be at variance to this Principle.

Methodology

BoM, (2025)
KEAust (2024a)
KEAust (2024b)
Main Roads ArcGIS Shapefiles

6 VEGETATION MANAGEMENT

Main Roads will avoid clearing native vegetation where possible. Where clearing cannot be avoided then this clearing is kept to a minimum.

7 REHABILITATION, REVEGETATION AND OFFSETS

7.1 Revegetation and Rehabilitation

No temporary clearing will be undertaken as part of the Proposal activities and therefore no revegetation or rehabilitation will be conducted under CPS 818.

7.2 Offset Proposal

No offset proposal is required as the proposed clearing will not result in significant residual impacts to native vegetation within the region.

8 STAKEHOLDER CONSULTATION

Main Roads has commenced and will continue to undertake stakeholder consultation in accordance with CPS 818 Condition 8.

9 COMPLIANCE WITH CPS 818

Table 7 summarises what further pre-clearing impact assessment is required in accordance with CPS 818.

Table 7. Summary of Additional Management Actions Required by CPS 818

Impact of Clearing	Yes/No or NA	Further Action Required
1. The CAR indicates that the clearing is 'At Variance' or 'May be at Variance' with one or more of the Clearing Principles.	Yes	1. The proposed clearing is only at variance to Clearing Principle (f) and no other Clearing Principle. The proposed clearing of vegetation growing in association with a watercourse is less than 0.5 ha and is associated with a minor non-perennial watercourse. No further action is required.
2. Clearing is at variance or may be at variance with Clearing Principle (g) land degradation, (i) surface or underground water quality <u>or</u> (j) the incidence of flooding.	No	No further action required.
3. Clearing is at variance with Clearing Principle (g) land degradation, (i) surface or underground water quality <u>and</u> (j) the incidence of flooding.	No	No further action required.
4. The Proposal involves clearing for temporary works (as defined by CPS 818).	No	No further action required.
5a. Proposal is within a Region that: • has rainfall greater than 400mm; and, • is South of the 26th parallel; and, • works are necessary in 'Other than dry conditions'; and, • works have potential for uninfested areas to be impacted.	No	Standard Vehicle and Plant management actions from Annexure 204B (TABLE 204B.9.1), <u>Hygiene Checklists (D17#859669)</u> and <u>Vehicle, Plant and Machinery Hygiene Register Template (D23#179551)</u> will be applied.

Impact of Clearing	Yes/No or NA	Further Action Required
5b. Do the proposed works require clearing within or adjacent to DBCA managed lands in non-dry conditions?	No	No further action required.
6. 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.
7. 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.
8. Did an environmental specialist conduct the survey or field assessment?	Yes	The Environmental Specialist undertaking the biological assessments was suitably qualified and had more than three years' experience.
9. Did an environmental specialist prepare the Assessment Report and any other associated documentation including the VMP, Dieback Management Plan or Offset Proposal?	Yes	The Environmental Specialist preparing the Assessment Report and any other associated documentation including the VMP, Dieback Management Plan or Offset Proposal was suitably qualified and had more than three years' experience.

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