

# **Clearing Permit Decision Report**

# 1. Application details and outcomes

# 1.1. Permit application details

Permit number:	6361/3
Permit number:	0301/3
Permit type:	Purpose Permit
Applicant name:	APA Operations Pty Ltd
Application received:	11 October 2024
Application area:	570.52 hectares
Purpose of clearing:	Gas pipeline
Method of clearing:	Mechanical Removal
Tenure:	Pipeline Licence 108
Location (LGA areas):	Shire of Laverton and Shire of Menzies
Colloquial name:	Eastern Goldfields Pipeline

# 1.2. Description of clearing activities

APA Operations Pty Ltd proposes to clear up to 570.52 hectares of native vegetation within a boundary of approximately 570.52 hectares, for the purpose of gas pipeline (APA Operations Pty Ltd, 2024b). The project is approximately 15 metres wide corridor over a length of approximately 294 kilometres between Murrin Murrin Nickle Mine, Sunrise Dam Gold Mine and Tropicana Gold Mine (APA Group, 2014).

The application is to allow for ongoing maintenance of gas pipeline to comply with vegetation management requirements under Pipeline Licnce and AS2885 for pipeline safety and integrity (APA Group, 2014; APA Operations Pty Ltd, 2024a). The proposed clearing is to maintain line of sight between pipeline markers, maintenance of access tracks and for integrity dig requirements along the Eastern Goldfields Pipeline, constructed in 2015 (APA Group, 2014; APA Operations Pty Ltd, 2024a). Operational activities include:

- general equipment and facility maintenance;
- filter changes;
- cathodic protection surveys;
- pipeline excavation;
- venting;
- pipeline pigging;
- pipeline patrols;
- easement, facility and equipment inspections; and
- breakdown and emergency response exercises (APA Group; 2014; APA Operations Pty Ltd, 2024a).

Method of proposed clearing activities are generally not ground disturbing, with clearing and vegetation management involving rolling, slashing, pruning or mulching to a minimum of 300 millimetres and potential selective removal of trees where roots may damage pipeline (APA Group, 2014).

Clearing permit CPS 6361/1 was granted by the Department of Mines and Petroleum (now the Department of Energy, Mines, Industry Regulation and Safety on 29 January 2015 and was valid from 21 February 2015 to 21 February 2020. The permit authorised the clearing of up to 1,000 hectares of native vegetation within a boundary of approximately 9,361 hectares, for the purpose of pipeline construction and associated activities.

CPS 6361/2 was granted on 20 February 2020, amending the permit to extend the duration of the permit and amend the purpose for which clearing may be done. The area of clearing authorised and the permit boundaries remained unchanged.

On 11 October 2024, the Permit Holder applied to amend CPS 6361/2 to:

- extend the duration of the permit;
- remove tenements (L 38/105, L39/225, L 39/226, L 39/227, L 39/228, L 39/233, L 39/234) no longer required;
- reduce the area of clearing authorised from 1,000 hectares to 570.52 hectares;
- reduce the permit boundary from 9,361 hectares to 570.52 hectares to reflect the pipeline easement operational phase and;
- remove the fauna monitoring condition and replace with preclearance survey fauna management condition (APA Operations Pty Ltd, 2024a; 2024b).

<b>1.3.</b> Decision on application and key considerations
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Decision:	Grant
Decision date:	20 February 2025
Decision area:	570.52 hectares of native vegetation

# 1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51KA(1) and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advertised the application for a public comment for a period of 7 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (Appendix B), relevant datasets (Appendix E), supporting information provided by the applicant (Appendix A) including vegetation monitoring and sandhill dunnart monitoring data, the clearing principles set out in Schedule 5 of the EP Act (Appendix C), proposed avoidance and minimisation measures (Section 3.1), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3). The Delegated Officer also took into consideration the purpose of the clearing to comply with statutory requirements for the Pipeline Licence and AS2885.

The assessment identified that the proposed clearing may result in:

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- the loss of native vegetation that is suitable habitat for malleefowl (Leipoa ocellata);
- impacts to sandhill dunnart (Sminthopsis psammophila) individuals and habitat at a local and regional scale;
- potential impacts to great desert skink (Liopholis kintorei);
- potential impacts to breeding and foraging habitat for multiple fauna species that have been recorded to occur within the Eastern Goldfields Pipeline.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (Section 3.1), the Delegated Officer determined the proposed clearing can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- watercourse management to avoid riparian vegetation and maintain existing water flow;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- a fauna management (malleefowl) condition requiring areas proposed to be cleared to be inspected to identify malleefowl mounds, and to maintain a 200 metre buffer around identified active mounds during the months of September to January and a 50 metre buffer around identified inactive mounds;
- fauna management condition to conduct pre-clearance surveys and avoid identified burrows or translocate fauna as
- needed and;
- no clearing of understory within sandhill dunnart habitat, unless for the purpose of minor ground disturbing activities.

The assessment has not changed since the assessment for CPS 6361/2. The Delegated Officer determined that the proposed amendment is not likely to lead to an unacceptable risk to environmental values.

# 1.5. Site map

A site map of proposed clearing is provided in Figure 1 below.

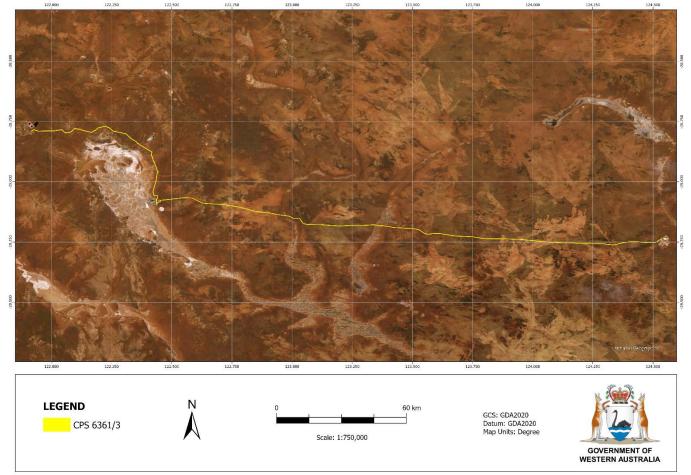


Figure 1. Map of the application area. The yellow shaded area indicates the area within which conditional authorised clearing can occur under the granted clearing permit.

# 2. Legislative context

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 510 of the EP Act (Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- Biodiversity Conservation Act 2016 (WA) (BC Act)
- Biosecurity and Agriculture Management Act 2007 (BAM Act)
- Conservation and Land Management Act 1984 (WA) (CALM Act)
- Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)
- Petroleum Pipelines Act 1969 (WA)
- Rights in Water and Irrigation Act 1914

The key guidance documents which inform this assessment are:

- A guide to the assessment of applications to clear native vegetation (DER, December 2014)
- Procedure: Native vegetation clearing permits (DWER, October 2021)

# 3. Detailed assessment of application

### 3.1. Avoidance and mitigation measures

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

### 3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix B) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 6361/2, however ten years of bi-annual monitoring reports have been incorporated into this assessment.

# 3.2.1. Biological values (fauna) - Clearing Principle (b)

### Assessment

A ten year bi-annual monitoring programme was conducted by Kingfisher over the application area and adjacent surrounds (Kingfisher, 2015b; 2015c 2016a; 2016b; 2017a; 2017b; 2018a; 2018b; 2019a; 2019b; 2020a; 2020b; 2021a; 2021b; 2022a; 2022b; 2023a; 2023b; 2024a; 2024b). The survey area is approximately 400 metres in width across the length of the pipeline corridor totalling to approximately 11,732 hectares (Kingfisher, 2024b). Conservation and locally significant species that have been recorded within the survey area or likely to occur within the application area (DBCA, 2025; Kingfisher, 2024b):

### Mammals

- sandhill dunnart (Sminthopsis psammophila, EN)
- brush-tailed mulgara (*Dasycercus blythi*, P4)
- central long-eared bat (Nyctophilus major tor, P3)
- southern marsupial mole (Notoryctes typhlops, P4)
- western pygmy possum (Cercartetus concinnus, local significance)
- kultarr (Antechinomys laniger, local significance)
- woolley's Pseudantechinus (Pseudantechinus woolleyae, local significance)

### Reptiles

- great desert skink (Liopholis kintorei, VU)
- woma python (Aspidites ramsayi, P4)

#### Birds

- night parrot (*Pezoporus occidentalis*, CR)
- malleefowl (Leipoa ocellata, VU)
- grey falcon (*Falco hypoleucos,* VU)
- peregrine falcon (Falco peregrinus, OS)
- princess parrot (*Polytelis alexandrae*, P4)
- sandhill grasswren (Amytornis oweni oweni, P4) (formerly striated grasswren/Amytornis striatus striatus)
- Australian Bustard (Ardeotis australis, local significance)
- bush stone-curlew (Burhinus grallarius, local significance)
- major mitchell's cockatoo (Lophochroa leadbeateri, local significance)
- purple-crowned lorikeet (Glossopsitta porphyrocephala, local significance)
- regent parrot (Polytelis anthopeplus, local significance)
- scarlet-chested parrot (Neophema splendida, local significance)
- rufous treecreeper (*Climacteris rufa*, local significance)
- rufous-crowned emu-wren (*Stipiturus ruficeps*, local significance)
- slender billed thornbill (*Acanthiza iredalei*, local significance)
- southern scrub-robin (Drymodes brunneopygia, local significance)

### Invertebrates

• arid bronze azure butterfly (Ogyris petrina, CR) (formerly Ogyris subterrestris petrina)

### Sandhill dunnart

The sandhill dunnart (*Sminthopsis psammophila*) is listed as Endangered under the BC Act and the EPBC Act. In Western Australia, the sandhill dunnart is known from a small area of the south-western Great Victoria Desert with the application area intersecting the northern extent of the species occurrence (Kingfisher, 2024b; Appendix E). There are approximately 23 spatially independent sites along the Eastern Goldfields Pipeline corridor where sandhill dunnart populations have been recorded (Kingfisher, 2024b). The populations along the pipeline accounts for approximately half the species known extent of occurrence (prior to impacts from fire) (Kingfisher, 2024b). Over 9 years, there was a total of 189 records of sandhill dunnart (110 on camera and 79 trapped individuals) within the corridor and local surrounds (>1 kilometre) suggesting a stable population along the pipeline corridor (Phoenix Environmental Sciences, 2024). This species potentially occurs over a wider area, however recent targeted surveys have failed to record the species across much of the Great Victoria Desert suggesting a highly restricted and fragmented extent of occurrence (Kingfisher, 2024b). The sandhill dunnart monitoring programme is the only field study of the species in Western Australia, and the only known location in the state where the species is regularly recorded (Kingfisher, 2024b). Monitoring west of Hope Campbell Lake during 2023 and 2024 did not detect any additional populations, however, contains potentially suitable habitat (Kingfisher, 2024b).

Kingfisher (2024b) described critical habitat as mature spinifex dominated shrublands, as these provide the range and abundance of sites required for shelter and protection from predators. The sandhill dunnart prefers long-unburnt vegetation with commonly associated species including *Triodia desertorum*, *Eucalyptus gongylocarpa, Callitris preissii, Hakea francisiana* and *Grevillea juncifolia* (Kingfisher, 2024b). Shelter sites are most commonly associated with stage 5 *Triodia desertorum* or Stage 4 *Triodia basedowii* and *T. rigidissima* (Appendix E), although sandhill dunnarts have been recorded to shelter within *Lepidobolus deserti, Schoenus hexandrus* and Eucalypt logs (Kingfisher, 2024b).

The objectives of the sandhill dunnart monitoring plan (Kingfisher, 2015a):

- monitor sandhill dunnart in project area
- contribute to ecological knowledge of sandhill dunnart
- monitor whether sandhill dunnart recolonise rehabilitated areas
- monitor introduced predators at sandhill dunnart sites

The Eastern Goldfields Pipeline was previously cleared for pipeline construction in April 2015 resulting in a loss of important sandhill dunnart habitat (Kingfisher, 2024b; Phoenix Environmental Sciences, 2024). The corridor has undergone rehabilitation (both naturally and assisted) and currently consists of scattered vegetation, which has not reached the stage of maturity (size or structure) to provide shelter for the sandhill dunnart (Kingfisher, 2024b). Most of the rehabilitation within the application area comprises of *Triodia* stages 1-3 (Appendix E), and other flora species that provide suitable shelter remain immature or absent (Kingfisher, 2024b). The sandhill dunnart has been detected from 16 sites within rehabilitation areas, most likely foraging or during transit, however there are no records of the species sheltering within the rehabilitation, however, is expected to change as *Triodia* matures to a suitable age to support the sandhill dunnart (Kingfisher, 2024b).

There has been a significant increase in ecological knowledge of the sandhill dunnarts as a result of the monitoring program. Population fluctuations that have occurred over the long-term monitoring program are mostly attributed to the complex interactions between fire, rainfall and predation, however, records indicate the sandhill dunnart populations have persisted after the pipeline construction (Kingfisher, 2024b). Given the reduction of the area proposed to be cleared and low impact vegetation clearing activities, the impacts to the species are reduced and on-going monitoring is no longer required as a permit condition. It is recommended further monitoring continue at a reduced capacity to identify if the sandhill dunnarts shelter and forage within the rehabilitated areas of the pipeline corridor (DBCA, 2025; Phoenix Environmental Sciences, 2024). Implementation of a preclearance survey condition to avoid any evidence or burrows of sandhill dunnarts by 10 metres or relocate individuals will minimise local impacts to the species. Additionally, the implementation of a condition within areas sandhill dunnart occur to avoid clearing understory vegetation below 500 millimetres, except for minor ground disturbing works will minimise impact on sandhill dunnart habitat.

### **Brush-tailed mulgara**

The brush-tailed mulgara (*Dasycercus blythi*, P4) has a scattered species occurrence across the Great Victorian Desert (Kingfisher, 2024b). Habitat for this species is described as sandy desert country (Menkhort and Knight, 2011). This species has been extensively recorded during the 2024 survey on motion cameras and several active burrows located (Kingfisher, 2024b; Appendix E). While there is unlikely to be significant impacts to this species at a regional level, local impacts can be minimised with a pre-clearance survey and fauna spotter during clearing activities.

### Southern marsupial mole

The southern marsupial mole (*Notoryctes typhlops*, P4) is a solitary species, living mostly underground and is sparsely distributed across much of arid Australia, in sandy desert country (Menkhort and Knight, 2011). There are several records of the southern marsupial mole across the application area that have been identified from predator scats and distinctive tracks and tunnels (Kingfisher, 2024b; Appendix E). While there is unlikely to be significant impacts to this species at a regional level, local impacts can be minimised with a pre-clearance survey and fauna spotter during clearing activities.

### **Central long-eared bat**

The central long-eared bat (*Nyctophilus major tor*, P3) subspecies occurs in a range of dry woodland and shrubland communities in arid and semi-arid regions. This species mostly forages low, amongst the shrub layer and the ground, and roosts in tree hollows or under loose bark and crevices (Menkhort and Knight, 2011). This species has been recorded once from the Tropicana area in 2009, however, was not recorded during monitoring (Kingfisher, 2024b). It is unlikely this species will be significantly impacted by the proposed cleared, however it is recommended that trees containing hollows be inspected prior to clearing to avoid clearing any potential roosting habitat.

### Great desert skink

The great desert skink (*Liopholis kintorei*, VU) is a large burrowing skink that has a scattered distribution across its range, and has disappeared from former habitats, particularly in the Gibson Desert, Great Victoria Desert and Great Sandy Desert regions. (Commonwealth of Australia, 2008; Wilson and Swan, 2021). This species occupies a variety of environments from hard spinifex gravelly plains and sandplains to semi-saline soft spinifex sandplains, and non-spinifex mulga (*Acacia aneura*) woodland in the western deserts region of Central Australia (Indigenous Desert Alliance, 2022; Wilson and Swan, 2021). This species communally inhabits large, permanent burrow complexes (up to 13 metres in diameter and over one metre deep) (Kingfisher, 2024b). This species was recorded in 2019 approximately 10 kilometres south of the pipeline corridor within long unburnt Mulga shrubland on a sandy, lateritic gravel slope (Kingfisher, 2024b). Suitable habitat occurs within the application area (Appendix E), however targeted surveys did not record any within the application area (Kingfisher, 2022a; Kingfisher, 2024b). Given active burrows were recorded nearby the application area, suitable habitat present, there is potential for occurrence (Kingfisher, 2024b). While there is unlikely to be significant impacts to this species at a regional level, local impacts can be minimised with a pre-clearance survey and fauna spotter during clearing activities.

### Woma python

The woma python (*Aspidites ramsayi*, P4) occurs in arid zones of Western Australia inhabiting areas of open myrtaceous heath on sand plains, and dune fields dominated by spinifex (*Triodia spp*) (Department of Environment and Conservation, 2012). There are regional records of the woma python, however none were recorded during the monitoring program (Kingfisher, 2024b). Given the woma python is known or likely to occur in the area (DBCA, 2025), potential local impacts can be minimised with the implementation of a pre-clearance survey.

# Malleefowl

Malleefowl (*Leipoa ocellata*, VU) is a large ground-dwelling bird that occurs in a range of habitat types, primarily found in semiarid to arid shrublands and low woodlands (3-8 metres in height) dominated by mallee and associated habitats, such as broombush (*Melaleuca uncinata*) and native pine (*Callitris* spp) scrub (DCCEEW, 2024). The nest is constructed in sandy soils and leaflitter by building a large mound for egg incubation (DCCEEW, 2024). This species favours mallee that has been long unburnt and ungrazed (DCCEEW, 2024). Mallefowl has been regularly recorded to occur within the survey area with several breeding sites recorded along the pipeline corridor (Kingfisher, 2024b). Given breeding habitat occurs within the application area, impacts to breeding habitat can be minimised with the implementation of a pre-clearance survey and avoiding active mounds by 200 metres during breeding season and inactive mounds by 50 metres.

### Night parrot

The night parrot (*Pezoporus occidentalis*) is listed as Critically Endangered under the BC Act and Endangered under the EPBC Act. This species is an elusive, nocturnal, ground dwelling parrot, previously found throughout most of arid and semi-arid Western Australia, however since 2017, all night parrot records from Western Australia have occurred in central and northern areas of Western Australia's interior (DBCA, 2024). The night parrot is within the priority survey area for night parrot, however given spinifex are likely to be less than 10 years in age, there is a low likelihood of occurrence and impacts to the night parrot are not likely to be significant (DBCA, 2025).

### Grey falcon and peregrine falcon

The peregrine falcon (*Falco peregrinus*, OS) occurs across Australia typically nesting on rocky ledges in tall, vertical cliff faces and gorges, or in trees associated with drainage lines and forages in a range of habitat types (Australian Museum, 2019). The grey falcon (*Falco hypoleucos*, VU) occurs in arid and semi-arid Australia frequenting timbered lowland plains, particularly acacia shrublands crossed by tree-lined watercourses (TSSC, 2020). The grey falcon generally roosts and nests in the tallest trees along watercourses, particularly River Red Gum (*Eucalyptus camaldulensis*) and Coolibah (*Eucalyptus coolabah*) (TSSC, 2020). There is one record of grey falcon from Plumridge Lakes Nature Reserve and three records of the peregrine falcon have been recorded within the survey area between 2015 and 2018 (Kingfisher, 2024b). There is potential for both these species to occur within the application area as transient visitors, however there are no permanent major watercourses that intersect the application area and does not contain cliff or gorge habitat (GIS Database). It is unlikely either of these species will be significantly impacted by the proposed clearing, however it is recommended that large trees be inspected prior to clearing to avoid clearing any potential nesting habitat.

### Locally significant mammals

There are a number of locally significant fauna species that have been recorded within the survey area (Kingfisher, 2024b). Given the extent of the proposed clearing, it is unlikely these species will be significantly impacted; however, local impacts can be minimised with the implementation of a directional clearing condition allow terrestrial fauna to move into adjacent habitat.

### Priority and locally significant birds

Several priority listed and locally significant bird species have been recorded within the survey area (Kingfisher, 2024b). Given the extent of the proposed clearing, it is unlikely these species will be significantly impacted; however local impacts can be minimised with the implementation of a directional clearing condition, and it is recommended that trees containing hollows be inspected prior to clearing to avoid clearing any potential nesting habitat.

### Arid bronze azure butterfly

Arid bronze azure butterfly (ABAB) (*Ogyris petrina*) is listed as Critically Endangered under the BC Act and the EPBC Act. ABAB populations are severely fragmented, restricted in geographic range and sensitive to clearing and habitat disturbance (DBCA, 2020). The preferred habitat is described as vegetation of mature mixed gimlet (*Eucalyptus salubris*), salmon gum (*Eucalyptus salmonophloia*) woodlands on red-brown loam soils, with an open understorey (DBCA, 2020). ABAB has an obligate association with a sugar ant *Camponotus* sp. nr. *terebrans*. The application area occurs within mapped potential habitat area for ABAB with potentially suitable habitat occurring on the eastern boundary for the host ant species (DBCA, 2025). While long term fauna monitoring has been conducted over the application area, invertebrates were not considered during these surveys. Given the application area has been previously disturbed for pipeline construction and ABAB's sensitivity to habitat disturbance, the likelihood of occurrence is low.

### **Conclusion**

For the reasons set out above, it is considered that the impacts of the proposed clearing on conservation significant fauna and associated habitat can be managed by placing various fauna management conditions on the clearing permit including preclearance surveys and avoidance measures.

### **Conditions**

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- a fauna management (malleefowl) condition requiring areas proposed to be cleared to be inspected to identify
  malleefowl mounds, and to maintain a 200 metre buffer around identified active mounds during the months of
  September to January and a 50 metre buffer around identified inactive mounds;
- fauna management condition to conduct pre-clearance surveys and avoid identified burrows or translocate fauna as needed; and
- no clearing of understory within sandhill dunnart habitat, unless for the purpose of minor ground disturbing activities.

### 3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 22 November 2024 by the Department of Energy, Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There are two native title claims (WCD2021/009 and WCD2023/002) over the area under application (DPLH, 2025). These claims have been determined by the Federal Court on behalf of the claimant groups (Nangaanya-ku Native Title Claim Group (Part A) and Nyalpa Pirniku). However, the tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There is one registered Aboriginal Sites of Significance (Place 1728) within the application area (DPLH, 2025). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

The Eastern Goldfields Pipeline Project was referred to the Environmental Protection Authority (EPA) on 30 July 2014. On 3 November 2014, the EPA decided under Section 39A of the *Environmental Protection Act 1986* not to assess the project.

The Eastern Goldfields Gas Pipeline Construction (2014/7284) was referred to the Commonwealth Department of Environment (now Department of Climate Change, Energy, Environment and Water) on 29 July 2014. On 25 August 2014, the Department of Environment decided under Section 75 of the *Environmental Protection and Biodiversity Conservation Act 1999* the proposed action is not a controlled action.

Other relevant authorisations required for the proposed land use include:

• An Environment Plan approved under the Petroleum Pipelines Act 1969.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

End

Appendix A. Additional information provided by applican	t
Summary of comments	Consideration of comment
Updated description of activities involved with gas pipeline maintenance	See 1.2
Submission of vegetation and weed monitoring reports See Appendix C	

# Appendix B. Site characteristics

# B.1. Site characteristics

Characteristic	Details		
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia (GIS Database). The predominant land use in the region is Crown reserves, Aboriginal reserves, grazing of native pastures, conservation, lakes and major watercourses and mining activity (CALM, 2002).		
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).		
Conservation areas	The nearest conservation area is Plumridge Lakes Nature Reserve, located approximately 16 kilometres southeast of the eastern end of the application area (GIS Database).		
Vegetation description	The application area occurs within the Eastern Murchison (MUR01) subregion of Murchison bioregion, Shield (GVD01) and Central (GVD02) subregion of the Great Victoria Desert bioregi (GIS Database). The vegetation of the application area is broadly mapped as the following Beat vegetation associations: 18, 19, 39, 84, 389 and 1239 (detailed in decision report CPS 6361/1; GIS Database).		
	A flora and vegetation survey was conducted over the application area by Botanica Consulting during October 2013 and April 2014 (Botanica Consulting, 2014a; 2014b). A total of 125 vegetation associations were recorded within the application area (detailed in decision report CPS 6361/1; Botanica Consulting, 2014a, Botanica Consulting, 2014b).		
Vegetation condition	Aerial imagery indicate the vegetation within the proposed clearing area is in very good to completely degraded (Trudgen, 1991) condition (GIS Database). The full Trudgen (1991) condition rating scale is provided in Appendix D.		
	The area proposed to be cleared has been previously cleared for pipeline construction in 2015 and has undergone rehabilitation (Botanica Consulting, 2023; Kingfisher, 2024b).		
Climate and landform	The climate of the region is arid with summer and winter rainfall with an annual average rainfall of approximately 236.8 millimetres recorded at Laverton (BoM, 2025; CALM, 2002). The application area is mapped within elevations ranging between 350-500 metres Australian height datum (CIS Database).		
Soil description	height datum (GIS Database). The application area falls within the following land systems (GIS Database):		
	<ul> <li>AB47 atlas system: plains and dunes-longitudinal and ring dunes with interdune corridors and plains; occasional salt pans.</li> <li>AB50 atlas system: plains with scattered dunes and small breakaways of unit BY7.</li> <li>BE15 atlas system: gently undulating to low hilly pediments with stony and gravelly pavements and traversed by numerous seasonal streams.</li> </ul>		
	<ul> <li>Bevon system: irregular low ironstone hills with stony lower slopes supporting mulga shrublands.</li> </ul>		
	<ul> <li>Brooking system: prominent ridges of banded iron formation supporting mulga shrublands and occasional minor halophytic communities.</li> </ul>		
	<ul> <li>Bullimore system: gently undulating sandplain with occasional linear dunes and stripped surfaces supporting spinifex grasslands with mallees and acacia shrubs.</li> <li>Carnegie system: salt lakes with fringing saline alluvial plains, kopi dunes and sandy</li> </ul>		
	<ul> <li>banks, supporting halophytic shrublands and acacia tall shrublands.</li> <li>Crete system: breakaways and lower plains based on weathered granites, supporting</li> </ul>		
	<ul> <li>halophytic shrublands.</li> <li>Gundockerta system: extensive, gently undulating calcareous stony plains supporting bluebush shrublands.</li> </ul>		
	<ul> <li>Hootanui system: breakaways, hills and ridges with saline gravelly and stony lower plains supporting scattered halophytic low shrublands.</li> </ul>		
	<ul> <li>Jundee system: hardpan plains with variable gravelly mantles and minor sandy banks supporting weakly groved mulga shrublands.</li> </ul>		
	<ul> <li>Leonora system: low greenstone hills and stony plains supporting mixed chenopod shrublands.</li> </ul>		
	Mileura system: saline and non-saline calcreted river plains with flood plains and calcrete platforms supporting variable tall shrublands, mixed halophytic shrublands and shrubby grasslands.		

	<ul> <li>Monitor system: distributary alluvial fans and wash plains supporting mulga - chenopod shrublands.</li> <li>Monk system: hardpan plains with occasional sandy banks supporting mulga tall shrublands and wanderrie grasses.</li> <li>My99 atlas system: plains with extensive gravel pavements and small tracts of longitudinal dunes.</li> <li>Rainbow system: hardpan plains supporting mulga tall shrublands.</li> <li>Steer system: gravelly alluvial plains supporting chenopod shrublands.</li> <li>Sunrise system: stony plains supporting mulga shrublands.</li> <li>Teutonic system: hills and stony plains on acid volcanic rocks supporting acacia shrublands.</li> <li>Violet system: gently undulating gravelly plains on greenstone, laterite and hardpan, with low stony rises and minor saline plains; supporting groved mulga and bowgada shrublands and occasionally chenopod shrublands.</li> <li>Yowie system: sandy plains supporting tall shrublands of mulga and bowgada with patchy wanderrie grasses.</li> </ul>
Waterbodies and hydrogeography	There are no permanent watercourses or waterbodies within the application area, however, there are numerous ephemeral drainage lines and ephemeral lakes that intersect the application area (GIS Database). The application area is adjacent Lake Carey, Balpe Lake and Hope Campbell Lake (GIS Database). The application area is located within the Goldfields Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (GIS Database). The nearest Public Drinking Water is Laverton Water Reserve and Catchment Area, located approximately 22 kilometres north of the western end of the application area (GIS Database). There are no Wetlands of International Importance or Nationally Important Wetlands that occur within the application area of surrounding area (10 kilometres) (GIS Database). The mapped groundwater salinity is 500 to >35,000 milligrams per litre total dissolved solids which is described as fresh to hypersaline (GIS Database).
Flora	No Threatened flora species have been recorded within the application area (Botanica Consulting, 2023). Eight priority flora species have previously been recorded within the application area (Botanica Consulting, 2014a, 2014b).
Ecological communities	<ul> <li>There are no Threatened Ecological Communities within the application area or local surrounds (10 kilometres) (GIS Database). The application area intersects two Priority Ecological Communities (PEC's) (GIS Database):</li> <li>Mount Morgan calcrete groundwater assemblage type on Carey palaeodrainage on Mt Weld Station (Priority 1); and</li> <li>Mount Jumbo Range vegetation complex (banded ironstone formation) (Priority 3). The application area contains vegetation representative of the yellow sandplain vegetation of Great Victoria Desert PEC (Priority 3) (Botanica Consulting, 2014b).</li> </ul>
Fauna	Results from fauna monitoring and database records has recorded six threatened fauna species, six priority fauna species and 10 locally significant fauna species within the application area or potentially occurring within the application area (DBCA, 2025; Kingfisher, 2024b). There is potential for one threatened invertebrate species to occur within the application area (DBCA, 2025).
Fauna habitat	There are 31 fauna habitats that have been described within the application area (detailed in decision report CPS 6361/1).

# B.2. Ecological community analysis table

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Are surveys adequate to identify? [Y, N, N/A]
Mount Morgan calcrete groundwater assemblage type on Carey palaeodrainage on Mt Weld Station	Priority 1	N	N/A	N/A	0	Y
Mount Jumbo Range vegetation complex (banded ironstone formation)	Priority 3	Y	Y	Y	0	Y
Yellow sandplain vegetation of the Great Victoria Desert with diverse vertebrate fauna	Priority 3	Y	Y	Y	0	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

Appendix C. Assessment against the clearing principles		
Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity."	At variance	No
Assessment:	(as per CPS 6361/2)	
Eight priority flora species have previously been recorded within the application area (Botanica Consulting, 2014a, 2014b). During construction phase, the individuals within the application area were determined not likely to be significantly impacted from the proposed clearing due to records located outside the application area (detailed in decision report CPS 6361/1; DMP, 2015). <i>Melaleuca apostiba</i> (P3) was previously recorded surrounding Hope Cambell Lake, however, records of this species are no longer within the application area (Botanica Consulting, 2014b). Vegetation monitoring in 2023 did not record any Threatened or Priority flora within the application area (Botanica Consulting, 2023). Given the above, it is unlikely any priority flora species will be significantly impacted by the proposed clearing and the flora management condition can be removed from the permit.		
Two Priority Ecological Community intersects the application area: mount jumbo range vegetation complex (P3) and yellow sandplain communities of Great Victoria Desert (P3) (Botanica Consulting, 2014a; GIS Database). During initial construction of pipeline, the applicant reduced the required clearing to avoid and minimise impact on the PEC and has undergone rehabilitation of the area (APA Group, 2014, Botanica Consulting, 2023). Rehabilitation requirements are managed under the Pipeline Licence. The proposed clearing for on-going pipeline maintenance is unlikely to significantly impact either PEC.		
A total of eight introduced flora species have been recorded within the application area, however only two were identified during vegetation monitoring in 2023 (Botanica Consulting, 2023). None of the species are listed as Weeds of National Significance or declared pest plants in Western Australia under the <i>Biosecurity and Agriculture Management Act 2007</i> , however weeds have potential to outcompete native flora and reduce biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing can be minimised by maintaining the weed management condition.		
<u>Principle (b):</u> "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."	At variance	Yes
Assessment:	(as per CPS	Refer to Section 3.2.1, above.
The area proposed to be cleared contains records of conservation significant fauna and significant habitat for Threatened fauna.	6361/2)	
<u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."	Not likely to be at variance	No
Assessment:	(as per CPS	
The area proposed to be cleared is unlikely to contain flora species listed under the BC Act.	6361/2)	
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."	Not likely to be at variance	No
Assessment:		
The area proposed to be cleared does not contain species that can indicate a threatened ecological community.	(as per CPS 6361/2)	
Environmental value: significant remnant vegetation and conservation areas		
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."	Not at variance	No
Assessment:		
The extent of the mapped vegetation type is consistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001). The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area (GIS Database).	(as per CPS 6361/2)	

Assessment against the clearing principles	Variance level	Is further consideration required?
<u>Principle (h):</u> "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."	Not likely to be at variance	No
Assessment:	(as per CPS	
Given the distance to the nearest conservation area (GIS Database), the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.	6361/2)	
Environmental value: land and water resources		
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."	At variance	No
Assessment:	(as per CPS	
Several ephemeral watercourse and lakes intersect the application (GIS Database). Potential impacts to the vegetation growing in association with watercourses may be minimised by implementing a watercourse management condition.	6361/2)	
<u>Principle (g):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	Not likely to be at variance	No
Assessment:		
The mapped soils are susceptible to erosion (Botanica Consulting, 2023). Vegetation monitoring reported no evidence of major erosion, however minor erosion was recorded (Botanica Consulting, 2023). Noting the extent of the application area, the proposed clearing is not likely to have an appreciable impact on land degradation.	(as per CPS 6361/2)	
<u>Principle (i):</u> "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."	Not likely to be at variance	No
Assessment:		
Given no permanent water courses or Public Drinking Water Sources Areas are recorded within the application area (GIS Database), the proposed clearing is unlikely to impact surface or ground water quality.	(as per CPS 6361/2)	
<u>Principle (j):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."	Not likely to be at variance	No
Assessment:		
The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.	(as per CPS 6361/2)	

# Appendix D. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

### Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.

Condition	Description
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

# Appendix E.

Images

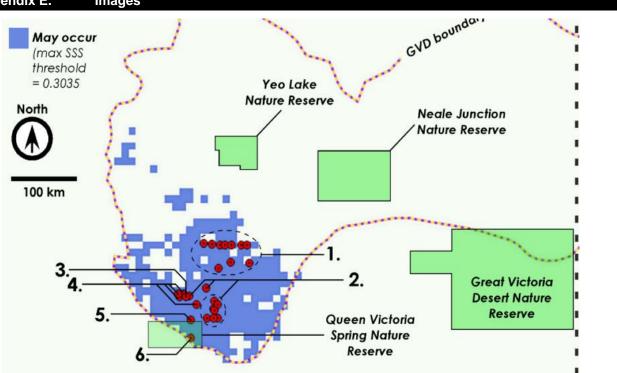
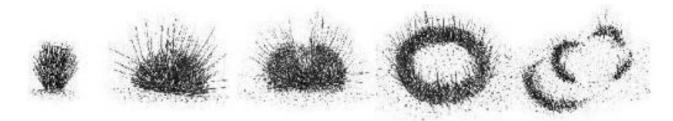


Figure 2. Sandhill dunnart extent of occurrence in the Great Victoria Desert. Tropicana (1), Gaikhorst and Lambert (2), Vimy (3), Hart and Kitchener (4) Pearson (5) and DPaW (6) (Kingfisher, 2024b).



Figure 3. Sandhill dunnart habitat (recorded at Tropicana) (Kingfisher, 2015a).



Stage 1Stage 2Stage 3Stage 4Stage 5

Figure 4. Life stages of spinifex hummocks drawn by Vicki Reynolds (Churchill, 2001).



Figure 5. Brush-tailed mulgara records along the Eastern Goldfields Pipeline (Kingfisher, 2023a).

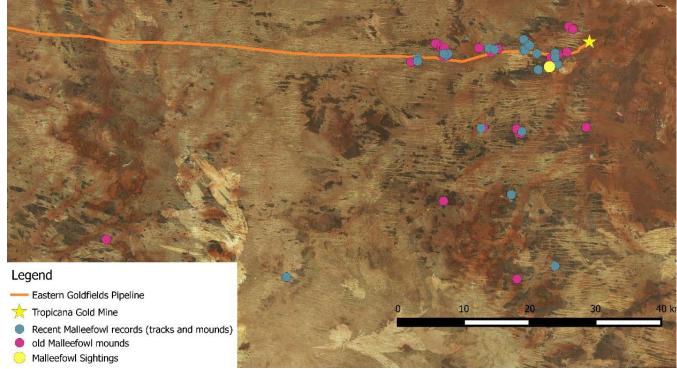
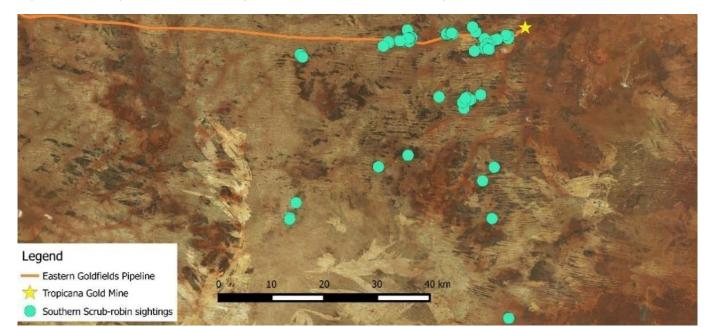


Figure 6. Malleefowl records along the Eastern Goldfields Pipeline (Kingfisher, 2024b).



Striated Grasswren

Figure 7. Sandhill grasswren records along the Eastern Goldfields Pipeline (Kingfisher, 2024b).



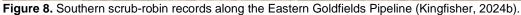




Figure 9. Rufous treecreeper records along the Eastern Goldfields Pipeline (Kingfisher, 2024b).



Figure 10. Southern marsupial mole records along the Eastern Goldfields Pipeline (Kingfisher, 2024b).



Figure 11. Great desert skink record and mapped potentially suitable habitat along the Eastern Goldfields Pipeline (Kingfisher, 2022a).

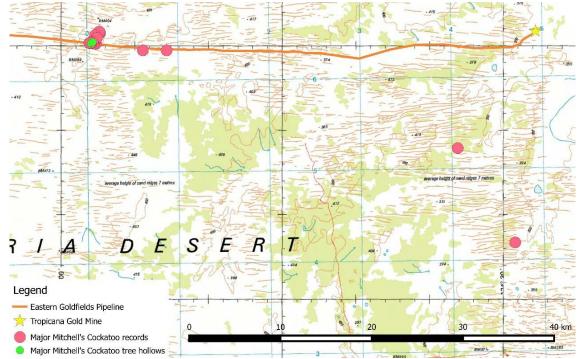


Figure 12. Major Mitchell records along the Eastern Goldfields Pipeline (Kingfisher, 2024b).

### Appendix F. Sources of information

# F.1.GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- Aboriginal Heritage Places (DPLH-001)
- Contours (DPIRD-073)
- Clearing Regulations Environmentally Sensitive Areas (DWER-046)
- Clearing Regulations Schedule One Areas (DWER-057)
- DBCA Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- DBCA Fire History (DBCA-060)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments Catchments (DWER-028)
- Hydrography Inland Waters Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation (DPIRD-006)
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping Best Available (DPIRD-027)
- Soil Landscape Mapping Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

- Threatened and Priority Flora (TPFL)
- Threatened and Priority Flora (WAHerb)
- Threatened and Priority Fauna
- Threatened and Priority Ecological Communities
- Threatened and Priority Ecological Communities (Buffers)

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- Department of Biodiversity, Conservation and Attractions (DBCA) (2024) Guidelines for determining the likely presence and habitat usage of night parrot (*Pezoporus occidentalis*) in Western Australia. Available from: <u>Threatened and priority</u> <u>fauna resources | Department of Biodiversity, Conservation and Attractions</u>.
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### 4. Glossary

### Acronyms:

BC Act BoM DAA DAFWA DCCEEW DBCA DEMIRS	Biodiversity Conservation Act 2016, Western Australia Bureau of Meteorology, Australian Government Department of Aboriginal Affairs, Western Australia (now DPLH) Department of Agriculture and Food, Western Australia (now DPIRD) Department of Climate Change, Energy, the Environment and Water, Australian Government Department of Biodiversity, Conservation and Attractions, Western Australia Department of Energy, Mines, Industry Regulation and Safety
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia (now DEMIRS)
DMP	Department of Mines and Petroleum, Western Australia (now DEMIRS)
DoEE	Department of the Environment and Energy (now DCCEEW)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora (now known as Threatened Flora)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	Environmental Protection Act 1986, Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	Rights in Water and Irrigation Act 1914, Western Australia
TEC	Threatened Ecological Community

### **Definitions:**

{DBCA (2023) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:

### T <u>Threatened species:</u>

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the Biodiversity Conservation Act 2016 (BC Act).

*Threatened fauna* is the species of fauna that are listed as critically endangered, endangered or vulnerable threatened species.

*Threatened flora* is the species of flora that are listed as critically endangered, endangered or vulnerable threatened species.

The assessment of the conservation status of threatened species is in accordance with the BC Act listing criteria and the requirements of <u>Ministerial Guideline Number 1</u> and <u>Ministerial Guideline</u> <u>Number 2</u> that adopts the use of the International Union for Conservation of Nature (IUCN) <u>Red List</u> of <u>Threatened Species Categories and Criteria</u>, and is based on the national distribution of the species.

### CR Critically endangered species

Threatened species considered to be "facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines.

#### EN Endangered species

Threatened species considered to be "facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines.

### Vulnerable species

Threatened species considered to be "facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines.

### Extinct Species:

νu

### EX Extinct species

Species where "there is no reasonable doubt that the last member of the species has died", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

### EW Extinct in the wild species

Species that "is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild.

### Specially protected species:

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

### MI Migratory species

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Migratory species include birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) or The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

### CD Species of special conservation interest (conservation dependent fauna)

Species of special conservation need that are dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Currently only fauna are listed as species of special conservation interest.

#### OS Other specially protected species

Species otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Currently only fauna are listed as species otherwise in need of special protection.

### P Priority species:

Priority is not a listing category under the BC Act. The Priority Flora and Fauna lists are maintained by the department and are published on the department's website.

All fauna and flora are protected in WA following the provisions in Part 10 of the BC Act. The protection applies even when a species is not listed as threatened or specially protected, and regardless of land tenure (State managed land (Crown land), private land, or Commonwealth land).

Species that may possibly be threatened species that do not meet the criteria for listing under the BC Act because of insufficient survey or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of prioritisation for survey and evaluation of conservation status so that consideration can be given to potential listing as threatened.

Species that are adequately known, meet criteria for near threatened, or are rare but not threatened, or that have been recently removed from the threatened species list or conservation dependent or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of priority status is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 Priority One - Poorly-known species – known from few locations, none on conservation lands Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, for example, agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under immediate threat from known threatening processes. These species are in urgent need of further survey.

P2 Priority Two - Poorly-known species – known from few locations, some on conservation lands Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, for example, national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation.

Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements for threatened listing and appear to be under threat from known threatening processes. These species are in urgent need of further survey.

### P3 Priority Three - Poorly-known species – known from several locations

Species that are known from several locations and the species does not appear to be under imminent threat or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat.

Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. These species need further survey.

# P4 Priority Four - Rare, Near Threatened and other species in need of monitoring

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as a conservation dependent specially protected species.

(c) Species that have been removed from the list of threatened species or lists of conservation dependent or other specially protected species, during the past five years for reasons other than taxonomy.

(d) Other species in need of monitoring.

# Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.
- (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.
- (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.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (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.
- (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.
- (j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.