

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	8399/2
Permit type:	Purpose Permit
Applicant name:	EII Gas Transmission Service WA (Operations) Pty Ltd
Application received:	26 June 2024
Application area:	265.449 hectares
Purpose of clearing:	Pipeline maintenance
Method of clearing:	Mechanical Removal
Tenure:	Pipeline Licence 60
	Pipeline Licence 63
Location (LGA areas):	Shire of East Pilbara
	Town of Port Hedland
Colloquial name:	Telfer Gas Pipeline

1.2. Description of clearing activities

EII Gas Transmission Service WA (Operations) Pty Ltd proposes to clear up to 265.449 hectares of native vegetation within a boundary of approximately 265.47 hectares, for the purpose of gas pipelines maintenance. The gas pipeline is approximately 443 kilometres in length and the width of the application is six metres (APA, 2019). The project extends from the Pilbara Pipeline System at Port Hedland to the Telfer gold-copper mine in the East Pilbara Region of Western Australia.

The application is to allow for ongoing pipeline maintenance to comply with vegetation management requirements under Pipeline Licence and AS2885 for pipeline safety and integrity. The proposed clearing is to maintain of line of sight between pipeline markers, maintenance of access tracks and for integrity dig requirements along the Telfer Gas Pipeline, constructed in 2005 (APA, 2019). 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.

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 mm and potential selective removal of trees where roots may damage pipeline (APA, 2019).

Clearing permit CPS 8399/1 was granted by the Department of Mines, Industry Regulation and Safety (now the Department of Energy, Mines, Industry Regulation and Safety) on 12 September 2019 and was valid from 5 October 2019 to 4 October 2024. The permit authorised the clearing of up to 265.449 hectares of native vegetation within a boundary of approximately 265.47 hectares, for the purpose of pipeline maintenance.

On 26 June 2024, the Permit Holder applied to amend CPS 8399/1 to extend the permit duration and to update the fauna management condition.

1.3. Decision on application and key considerations		
Decision:	Grant	
Decision date:	2 October 2024	
Decision area:	265.449 hectares of native vegetation	

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed, and determined in accordance with sections 51O and 51KA(1) 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 A), relevant datasets (Appendix D), supporting information provided by the applicantant, including the results of a survey, the clearing principles set out in Schedule 5 of the EP Act (Appendix B), 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 Pipeline Licences 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;
- impacts to riparian vegetation and surface water flow; and
- impacts to conservation significant fauna.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see 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;
- undertake slow, progressive one-directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- watercourse management condition to avoid riparian vegetation and maintain surface water flow; and
- conduct pre-clearance surveys to avoid direct impacts to conservation significant fauna.

The assessment has not changed since the assessment for CPS 8399/1. The Delegated Officer determined that the proposed updating fauna management condition and extending the duration of the permit is not likely to lead to an unacceptable risk to environmental values.

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 (see 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)
- Country Areas Water Supply Act 1947 (WA) (CAWS Act)
- Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)
- Mining Act 1978 (WA)
- Rights in Water and Irrigation Act 1914 (RIWI Act)
- The Petroleum Pipelines Act 1969 (WA)

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)
- Technical guidance Terrestrial Fauna Surveys for Environmental Impact Assessment (EPA, 2020)

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.

All clearing will be undertaken within the previously disturbed easement and will be minimised to the greatest extent. In most cases, there will be no ground disturbance, allowing vegetation to remain in situ and leaving rootstock intact. Hygiene procedures will be in place during clearing activities to prevent weed and disease infestations (APA, 2014). Vehicle patrols

occur monthly by pipeline technicians and visual inspections of pipeline corridor to inspect vegetation growth, presence of weeds, erosion, pipe exposure, condition of signs and aerial markers (APA, 2019).

3.2. Assessment of impacts on environmental values

The assessment against the clearing principles identified that the impacts of the proposed clearing present a risk to biological values (fauna). The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed significantly from the Clearing Permit Decision Report CPS 8399/1.

3.2.1. Biological values (fauna) - Clearing Principles (b)

Assessment

In order to comply with Condition 7 on Clearing Permit CPS 8396/1, APA Group commissioned Kingfisher Environmental to conduct field surveys over the application area to identify certain conservation significant fauna species. The Permit Holder has requested an amendment to Condition 7 to remove part 7(a) of the condition:

7(a) Within two weeks prior to undertaking any clearing authorised under this Permit, the Permit Holder shall engage a *fauna specialist* to undertake *clearance surveys* for greater bilby (*Macrotis lagotis*), mulgara (*Dasycercus* species), dampierland plain slider (*Lerista separanda*) and great desert skink (*Liopholis kintorei*).

The Permit Holder has requested the removal of the condition as a survey was undertaken in 2020 and given a fauna spotter will be present at the time of clearing believes that the risk to fauna species will be mitigated and the cost requirement to undertake clearance surveys is disproportionate to the environmental benefit gained (APA, 2024).

Below is a summary of the conservation significant species assessed during the fauna survey (Kingfisher, 2020).

Greater Bilby (Macrotis lagotis) Vulnerable

The Greater Bilby was recorded at several locations along the application area (Kingfisher, 2020). Burrows were classified as either active (currently in use as part of an animal's home range, with the presence of fresh tracks, diggings or by the use of motion cameras) or inactive (burrow abandoned, with no signs of recent use). At the time of clearing, burrows were also considered either occupied (fresh tracks, diggings or records from motion cameras), unoccupied (burrow collapsed and/or lacking a round entrance or cavity, or vegetation and cobwebs across the entrance), or potentially occupied (intact burrow with a round entrance and fresh tracks or diggings present in the local area). Regardless of occupancy, disturbances to Greater Bilby burrows were avoided, with machinery diverted around burrows by the zoologists present on site (Kingfisher, 2020). The observations recorded are summarised below.

- Active burrows = Nine
- Inactive burrows = 29
- Scat records = Three
- Diggings = 109
- Tracks = 34

While the Greater Bilby can be highly mobile, some individuals were recorded to persist along the pipeline corridor for over six weeks (on camera), and areas supporting fresh tracks in early May, still contained fresh sign in late July, 12 weeks later. Such records are indicative of resident, stable populations (Kingfisher, 2020).

Brush-tailed mulgara (Dasycercus blythi) Priority 4

The Brush-tailed Mulgara was sparsely recorded along application area from potential trace evidence. Tracks attributable to the species were recorded from several areas of spinifex dominated sandplain. Scats attributable to the species were also recorded from sandplain near Port Hedland. No occupied shelters of the Brush-tailed Mulgara were recorded within the pipeline corridor. Where potential Mulgara burrows were recorded within the pipeline corridor, machinery was directed around to minimise any potential impacts (Kingfisher, 2020). The observations recorded are summarised below.

- Inactive burrows = Six
- Diggings = Three
- Scat records =One
- Tracks = Six

Northern quoll (Dasyurus hallucatus) Endangered

The Northern Quoll was recorded at four locations during the 2020 field surveys. Northern Quoll tracks were recorded in sand along the Telfer Gas Pipeline, near the vicinity of low rocky hills, where the species is likely to den. While Northern Quolls den in rocky habitats, they can forage widely in adjacent habitats, and can also den in tree hollows along watercourses (Kingfisher, 2020). The observations recorded are summarised below.\

- Scat records = One
- Tracks = Five

As the pipeline routes avoided most rocky habitats, and disturbances to large trees were avoided, impacts to the local northern quoll population appear to have been minimal during clearing activities, and the species was likely to occur in the area during foraging or transit (Kingfisher, 2020).

Ghost bat (Macroderma gigas) Vulnerable

Ghost Bats inhabit deep caves as they rely on underground roosts with warm, humid microclimates to maintain their heat and water balance, especially in the more arid regions or at drier times of the year. As such, roost availability is restricted to relatively few subterranean structures (typically deep caves and underground mines) (Kingfisher, 2020). The ghost bat was recorded during the 2020 field surveys with an individual observed foraging adjacent to a rocky range near Callawa Creek. The species has also been recorded adjacent to the pipeline corridor at Table Hill. The observations recorded are summarised below.

- Scat records = One
- Sightings = Five

Due to the presence of caves and rock crevices the species is likely to roost in the local area, however such rocky habitat is absent from the pipeline corridor. As such, the ghost bat is not considered to be present during clearing activities (Kingfisher, 2020).

Western pebble-mound mouse (Pseudomys chapmani) Priority 4

The species occurs on the crests and slopes of rocky hills where it uses small stones to construct one or more colonial mounds. The western pebble-mound mouse was recorded adjacent to the Telfer Gas Pipeline during the 2020 surveys. The observations recorded are summarised below.

• Mounds observed = Five

Several old, inactive mounds were located on the slopes of rocky hills, adjacent to the pipeline corridor. However, suitable habitat (rocky hills and slopes) were sparsely distributed along the pipeline, as the route avoids most rocky hills and slopes. No pebble mounds were recorded within the pipeline corridor during the surveys and therefore disturbances to this species during clearing appear minimal.

Spectacled hare-wallaby (Lagorchestes conspicillatus leichardti) Priority 4

The spectacled hare-wallaby was recorded during the 2020 surveys. This species occupies a wide variety of habitat types including open forests, open woodland, tall shrublands, tussock grasslands and hummock grasslands. In the drier southern parts of its range (such as within the Pilbara) it commonly occupies spinifex (*Triodia* spp.) sandplains interspersed with low shrubs (Kingfisher, 2020)

Tracks = Three

This species is now restricted to a few small isolated patches in the Pilbara, Great Sandy Desert and Kimberley (Kingfisher, 2020). Due to the low density of records and the linear impact of the proposed clearing, it is unlikely that this species will be significantly impacted by the proposed clearing.

Conclusion

Based on the above assessment, the proposed clearing will result in significant impacts to conservation significant fauna of the region. The survey identified that there are resident stable populations of bilby in the local area. Therefore, it is possible that they may be impacted by the proposed clearing. Based on the current information the removal of condition 7(a) is not supported as the areas to be cleared should still be searched appropriately to ensure conservation significant fauna are not significantly impacted by the proposed clearing. An amendment has been made to the condition to allow for individuals and burrows to be avoided which will reduce the requirements of the condition whilst still ensuring that individuals aren't impacted.

For the reasons set out above, it is considered that the impacts of the proposed clearing on conservation significant fauna species can be managed by taking steps to identify significant habitat features such as burrows and signs of wildlife such as scats, diggings, and tracks prior to clearing.

Conditions

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

 Fauna management condition to conduct pre-clearance surveys and avoid identified burrows or translocate fauna as needed.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 20 August 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 9 native title claims over the area under application (DPLH, 2024). These have been determined by the Federal Court on behalf of the claimant groups:

- Martu and Ngurrara (WCD2002/002)
- Martu #3 (WCD2023/001)
- Kariyarra People (WCD2018/015)
- Ngarla Overlap Proceeding (WCD2013/001)

- Kariyarra Pipingarra (WCD2018/015)
- Ngarla and Ngarla #2 (Area A) (WCD2007/003)
- Nyamal People #1 (WCD2019/010)
- Martu (Part B) (WCD2013/002)
- Ngarla People (Mount Goldsworthy Lease Proceeding) (WCD2010/001)

However, the pipeline licence 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 are 3 registered Aboriginal Sites of Significance within the application area (DPLH, 2024). 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 application area is located within the Ministerial Statement 676 granted in April 2005. This approval was granted for the construction of a gas pipeline supply natural gas for on-site power generation at Nifty Copper Operations located in the eastern Pilbara region (EPA, 2005).

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.

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Site characteristics

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A.1. Site	e 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 across the regions include grazing of native pastures, unallocated Crown Land, Aboriginal reserves, conservation, mining activities and urban development.
Ecological linkage	According to available databases, the application does not contain any known or mapped ecological linkages (GIS Database).
Conservation areas	There are no conservation areas within the application area of local surrounds (10 kilometres) (GIS Database). The nearest conservation area is Eighty Mile Beach Marine Park located approximately 25 kilometres north of the application area (GIS Database).
Vegetation description	The application area occurs within the following Interim Biogeographic Regionalisation for Australia (IBRA) regions and subregions (GIS Database):
	Great Sandy Desert • McLarty (GSD01) • Mackay (GSD02) Little Sandy Desert • Rudall (LSD01) Pilbara • Chichester (PIL01)
	Roebourne (PIL04)
	Eleven Beard vegetation associations have been broadly mapped over the application area (detailed in CPS 8399/2 decision report; GIS Database).
	A flora and vegetation survey was conducted over the application area by Hart, Simpson and Associate Pty Ltd during September and October, 2001. The following vegetation associations were broadly described within the application area (detailed in CPS 8399/2 decision report; Hart, Simpson and Associates, 2001).
Vegetation condition	Aerial imagery and the annual clearing report indicate the vegetation within the proposed clearing area is in very poor to completely degraded (Trudgen, 1991) condition. The full Trudgen (1991) condition rating scale is provided in Appendix C. The area proposed to be cleared has been previously cleared for pipeline installation and disturbed from ongoing pipeline maintenance (APA, 2024)
Climate and	East: The climate of the region is Mediterranean, with an annual average rainfall of approximately 363.8 millimetres recorded at Telfer Aero (BoM, 2024; CALM, 2002)
	West: The climate of the region is arid (semi-desert) tropical, with an annual average rainfall of approximately 316.8 millimetres recorded at Port Hedland Airport (BoM, 2024; CALM, 2002).
	The application area is mapped within elevations ranging between 50-300 meters Australian height datum (GIS Database).
Soil description and land degradation risk	 The application area intersects seventeen land systems that have been mapped and described (Van Vreeswyk <i>et al</i>, 2004). Fifteen of the land systems are detailed in CPS 8399/2 decision report. On the eastern end of the application area, an additional two have been described below (DPIRD, 2024): BB17 atlas landsystem: Uneven, rough calcrete (kunkar) plains with small salt lakes and pans broken by variable proportions of longitudinal sand dunes and occasional low rises or hills; and
	 Fa32 atlas landsystem: Low ranges and hills largely on metamorphics and granites but with some inclusions of sandstones and conglomerates; extensive areas of bare rock; transgressed by dunes in places and flanked by small plains.
	The application area largely consisting of Nita, Little Sandy and Uaroo land systems (GIS Database). Most land systems within the application area are not generally prone to degradation and erosion, while some have a low to moderate susceptibility after removal of native vegetation (Van Vreeswyk <i>et al</i> , 2004)
Waterbodies	 The desktop assessment and aerial imagery indicated that at least 32 watercourses that intersect the area proposed to be cleared consisting of 27 minor, non-perennial watercourses and five major watercourses and numerous seasonal creek lines (GIS Database). The major watercourses are located in the western part of the application area in the Pilbara bioregion (GIS Database): De Grey River (major, perennial) – Nationally Important Wetland (WA065) Strelley River East (major, perennial)
	 Beebingarra creek (major, non-perennial) Pardoo creek (major, non-perennial)

	Tabba Tabba creek (major, non-perennial)
	The application area intersects Coolenar pool (perennial lake), Petermarer creek (minor, non- perennial) and an area of land that is subject to inundation (GIS Database).
Hydrogeography	The application area is located within the Pilbara and Canning-Kimberley Ground Water Areas proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act) (GIS Database). The application area intersects the Pilbara Surface Water Area proclaimed under the RIWI Act (GIS Database). Part of the application area intersects Public Drinking Water Source Area De Grey River Water Reserve (Priority 1), proclaimed under the <i>Country Areas Water Supply Act 1947</i> . The application area groundwater salinity is largely between 1,000-3,000 milligrams per litre total dissolved solids (mg/L TDS), while to a lesser extent, the groundwater salinity is 500-1,000 mg/L TDS and 3,000-7,000 mg/L TDS.
Flora	There are no records of Threatened flora within the application area or local surrounds (10 kilometres) (GIS Database). A desktop assessment identified records of 20 Priority flora within 10 kilometres of the application area (GIS Database).
Ecological communities	There are no records of Threatened or Priority Ecological Communities within the application area (GIS Database). The nearest PEC is the Gregory Land System that is located approximately 1.3 kilometres south of the application area (GIS Database).
Fauna	Six fauna species of conservation significance were recorded during the field surveys conducted by Kingfisher Environmental (2020).
Fauna habitat	The following five broad fauna habitats have been recorded within the application area (Hart, Simpson and Associates Pty Ltd, 2001; Kingfisher Environmental, 2019b):
	 sandplains of the Pilbara and the edge of the desert, with shrubs over <i>Triodia</i> hummock grasslands;
	• drainage lines including large rivers and associated alluvial soils, intersecting the sandplains;
	granite outcrops, which are scattered throughout;
	 pindan sandplain in the north, which is very similar to the adjacent desert and continuous with it in both soil and vegetation;
	 stony hills and valleys, mainly in the Shay Gap area, and otherwise relatively small and isolated; and
	 extensive swale and sand dune systems of the Great Sandy Desert in the east, broken only by small areas of other habitats.

A.2. Flora analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)
Euploca parviantrum	P1	Uncertain	Uncertain	<9	4
<i>Fimbristylis</i> sp. Shay Gap (K.R. Newbey 10293)	P1	Y	Y	<9	2
<i>Scaevola</i> sp. Isabella Range (R.D. Royce 1918)	P1	Uncertain	Uncertain	<9	2
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	P1	Y	Y	<4	44
Triodia degreyensis	P1	Y	Υ	<1	3
Gomphrena pusilla	P2	Ν	Ν	<9	15
Goodenia hartiana	P2	Y	Y	<1	26
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)	P3	Y	Y	<7	51
Comesperma sabulosum	P3	Y	Y	<4	18
Corynotheca asperata	P3	Y	Y	<4	5
Croton aridus	P3	Y	Y	<1	17
Euphorbia clementii	P3	Y	Y	<1	31
Euploca mutica	P3	Y	Y	<1	76
Gomphrena leptophylla	P3	Y	Y	<9	8
Gymnanthera cunninghamii	P3	Y	Y	<7	43
Nicotiana umbratica	P3	Y	Y	<5	18

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)
Pterocaulon xenicum	P3	Y	Y	<6	7
Rothia indica subsp. australis	P3	Y	Y	<2	22
Bulbostylis burbidgeae	P4	Y	Y	<3	39

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

Western Australian Herbarium (1998-); GIS Database

A.3. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Distance of closest record to application area (km)	Number of records (survey)	Are surveys adequate to identify? [Y, N, N/A]
Greater bilby	VU	Υ	0 km	184 records	Y
Northern quoll	EN	Y	0 km	6 records	Y
Ghost bat	VU	Y	0 km	6 records	Y
Brush-tailed mulgara	P4	Y	0 km	16 records	Y
Western pebble-mound mouse	P4	Y	0 km	5 records	Υ
Spectacled hare-wallaby	P4	Y	0 km	3 records	Υ

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

Appendix B. 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."	May be at variance	No
Assessment:		
The area proposed to be cleared may contain conservation significant flora. The Priority flora species listed in Appendix Error! Reference source not found. are considered to have high likelihood to occur within the application area (Kingfisher, 2019a). The maintenance clearing of a six metre corridor is unlikely to have significant impacts on the local populations.	as per CPS 9399/1	
Kingfisher (2019a) identified two invasive flora that may potentially occur within the application area that include buffel grass (<i>Cenchrus ciliaris</i>) and athel pine (<i>Tamarix aphylla</i>). Athel pine is listed as a Weed of National Significance an as a Declared Pest plant in Western Australia under the Biosecurity and Agriculture Management Act 2007. Weeds have potential to out-compete native flora and reduce biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.		
The Operations Environment Plan (APA, 2014) lists the Declared Pest species that have been detected along the Nifty Gas Pipeline easement:		
Mexican Poppy (Argemone mexicana)		
Calotropis (Calotropis procera)		
Bathurst Burr (Xanthium spinosum)		
• Parkinsonia (Parkinsonia aculeata)		
• Prickly Pear (<i>Opuntia</i> spp).		
There were also weeds recorded that are not listed as Declared Pests (APA, 2014):		
Kapok Bush (<i>Aerva javanica</i>)		
Saffron Thistle (Carthamus lantanus)		

Assessment against the clearing principles	Variance level	Is further consideration required?
Horehound (Marrubium vulgare)		
Buffel Grass (Cenchrus ciliaris)		
<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."	May be at variance	Yes Refer to Section
Assessment:		3.2.1, above.
The area proposed to be cleared contains habitat for conservation significant fauna. Furthermore, various conservation significant fauna species have been recorded in the application area.	8399/1	
<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 Threatened flora species listed under the BC Act.	8399/1	
<u>Principle (d):</u> "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 application area is not located within any known or mapped Threatened Ecological Communities (Kingfisher, 2019a; GIS Database).	as per CPS 8399/1	
Environmental value: significant remnant vegetation and conservation areas		
<u>Principle (e):</u> "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. The current extent of vegetation associations remaining for the vegetation associations that intersect the application area is between 94.43 and 100 percent (Government of Western Australia, 2019). 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 8399/1	
<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, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas (GIS Database).	8399/1	
Environmental value: land and water resources		
<u>Principle (f):</u> "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	
The application area intersects De Grey River that is listed as a Nationally Important Wetland (GIS Database). The De Grey River is a major perennial watercourse that is approximately 160 kilometres long, typically 500 metres wide. It holds significance as it is a major river system in the bioregion and includes the longest river permanent river pools and largest shallow estuary in north-western Australia (McKenzie et al., 2009). Potential impacts to vegetation growing in association with a watercourse can be minimised with the implementation of a watercourse management condition.	8399/1	
<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 have a low to moderate susceptibility to erosion (Van Vreeswyk et al, 2004). Noting the extent of the application area and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.	as per CPS 8399/1	

Assessment against the clearing principles	Variance level	Is further consideration required?
<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:		
There is one Public Drinking Water Source Area, the De Grey River Water Reserve (Priority 1), that intersects the application area (GIS Database). The proposed clearing for gas pipeline maintenance activities are compatible with conditions in the Priority 1 Public Drinking Water Source Area and it is unlikely the proposed clearing will cause deterioration to the water quality if all activities are conducted in accordance with DWER Water Quality Protection Guidelines and Notes (DWER, 2019). The nature of pipeline operations through this area is predominantly access (APA, 2019). The applicant advised occasional pruning works may be required within the reserve to maintain line of sight, however no ground disturbance works will be conducted without prior consultation with DBCA and should any major works be required within the reserve, consultation will occur with DWER (APA, 2019).	as per CPS 8399/1	
Two major perennial watercourses, numerous minor watercourses and minor non- perennial creek lines intersect the application area (GIS Database). Many minor non- perennial watercourses and creek lines in the region are dry for most of the year and only flow after significant rainfall. The proposed clearing generally will not be ground disturbing and comprises of rolling, slashing, pruning and mulching with potential selective large tree removal (APA, 2019). Given the above, the proposed clearing is unlikely to impact surface or ground water quality.		
<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:		
There are a number of watercourses that intersect the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur following heavy rainfall events. Given the extent of clearing, the proposed clearing is unlikely to increase the incidence or intensity of flooding.	as per CPS 8399/1	

Appendix C. 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.
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 D. Sources of information

D.1. GIS databases

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

- Clearing Regulations Schedule One Areas (DWER-057)
- DBCA Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Environmentally Sensitive Areas (DWER-046)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments Catchments (DWER-028)
- Hydrography Inland Waters Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Pre-European Vegetation Statistics
- 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 Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

D.2. References

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- APA (2019) Clearing Permit Application Supporting Documentation: Nifty Gas Pipeline PL68. Report prepared by APA Group, February 2019.
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- Environmental Protection Authority (EPA) (2005) Ministerial Statement 676 Gas Pipeline to Nifty Copper Operations, Great Sandy Desert.
- Environmental Protection Authority (EPA) (2020) Technical Guidance Terrestrial Fauna Surveys. <u>https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/2020.09.17%20-</u> <u>%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.pdf</u>
- Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics
- Hart, Simpson and Associates Pty Ltd (2001) Newcrest Mining Limited. Telfer Project, Infrastructure Corridor. Ecological Survey. Report prepared by Hart, Simpson and Associates Pty Ltd, for Newcrest Mining Limited, December 2001.
- Kingfisher Environmental (2019a) Desktop Assessment of Flora and Ecological Communities of the Telfer Gas Pipeline. Report prepared for APA Group, by Kelby Jennings on behalf of Kingfisher Environmental, July 2019.
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4. Glossary

Acronyms:

BC Act	Biodiversity Conservation Act 2016, Western Australia
ВоМ	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEMIRS	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
RIWI Act	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.

VU 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:

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.