Government of Western Australia
Department of Mines, Industry Regulation and Safety

Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	7660/2
Permit type:	Purpose Permit
Applicant name:	APA Operations Pty Ltd
Application received:	6 July 2022
Application area:	770 hectares within a boundary of approximately 4,633.37 hectares
Purpose of clearing:	Petroleum pipeline
Method of clearing:	Mechanical Removal
Tenure:	Mining Lease 38/435
	Mining Lease 38/436
	Mining Lease 38/437
	Mining Lease 38/438
	Mining Lease 38/439
	Mining Lease 38/841
	Mining Lease 38/1179
	Mining Lease 38/1255
	Mining Lease 38/1267
	Miscellaneous Licence 38/252
	Miscellaneous Licence 38/260
	Pipeline Licence No. 114
Location (LGA area/s):	Shire of Laverton
Colloquial name:	Yamarna Gas Pipeline Project

1.2. Description of clearing activities

APA Operations Pty Ltd proposes to clear up to 770 hectares within a boundary of approximately 4,633.37 hectares, for the purpose of a petroleum pipeline. The project is located approximately three kilometres south from Laverton, within the Shire of Laverton.

Clearing permit CPS 7660/1 was granted by the Department of Mines, Industry Regulation and Safety on 9 November 2017 and was valid from 2 December 2017 to 2 December 2022. The permit authorised the clearing of up to 770 hectares of native vegetation within a boundary of approximately 4,633.37 hectares, for the purpose of a petroleum pipeline.

On 6 July 2022, the Permit Holder applied to amend CPS 7660/1 to extend the permit duration for five years. The area of clearing authorised and the permit boundary remains unchanged.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	23 August 2022
Decision area:	770 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Mines, Industry Regulation and Safety (DMIRS) on 6 July 2022. DMIRS advertised the application for a public comment 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 the results of a previous flora and vegetation survey, the clearing principles set out in Schedule 5 of the EP Act (Glossary), relevant planning instruments and any other matters considered relevant to the assessment (Section 3.3).

After consideration of the available information, as well as the applicant's minimisation and mitigation measures, the Delegated Officer determined that the proposed clearing is not likely to lead to an unacceptable risk to the environment. The Delegated Officer decided to grant a clearing permit with the same management conditions as clearing permit CPS 7660/1, with the addition of a condition to avoid/minimise the impacts of clearing, in line with contemporary condition setting practices.

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 51O 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)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC 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 2013)
- *Procedure: Native vegetation clearing permits* (DWER, 2021)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

APA Operations Pty Ltd (2022) stated that the purpose of extending the duration is to complete required maintenance of the pipeline, including maintaining line of sight between pipeline repair markers and to repair the pipeline in line with Australian Standard (AS) 2885. The final pipeline corridor route was chosen to minimise the impacts on the environment and designed to avoid all Priority flora (APA Operations Pty Ltd, 2017). A review of available aerial imagery and Priority flora records indicates that this route was implemented (GIS Database).

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

No new biological information has been provided in support of the amendment application. The environmental values of the application area are well understood, and are described in the previous version of the decision report, based on biological studies undertaken by Botanica (2017). The previous assessment of the clearing did not identify any significant environmental impacts from the clearing of 770 hectares of native vegetation. Based on the current environmental information, the extension of the permit duration by five years is unlikely to change the environmental impacts of the proposed clearing. The conditions currently imposed on clearing permit 7660/1 are considered adequate to manage the impacts of the clearing, with the addition of the standard condition to avoid/minimise the impacts of the proposed clearing.

A review of the annual clearing permit reports provided for CPS 7660/1 indicate that 537.28 hectares of clearing was completed from 8 February 2018 to 13 April 2018 (APA Operations Pty Ltd, 2022). The report indicated that weed management actions were taken to control the spread of weeds as per permit condition four of CPS 7660/1. No subsequent clearing has been undertaken under CPS 7660/1.

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 7660/1.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 15 July 2022 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There are three native title claims over the area under application (DPLH, 2022). Two of these claims have been registered with the National Native Title Tribunal on behalf of the claimant groups and one has been determined by the Federal Court. However, the mining and pipeline tenure have 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 two registered Aboriginal Sites of Significance within the application area (DPLH, 2022). 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.

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 applicant

Summary of comments	Consideration of comment
The applicant was requested to comment on the rationale for extending the permit duration by five years. APA Operations Pty Ltd stated that the purpose of extending the duration is to complete required maintenance of the pipeline, including maintaining line of sight between pipeline repair markers and to repair the pipeline in line with AS 2885. It was also indicated that the remaining allocation under the previously approved 770 hectares is still intended to be cleared as required for the continued operation and maintenance of the gas pipeline (APA Operations Pty Ltd, 2022).	The rationale for extending the permit duration is considered to be reasonable by the delegated officer.

Appendix B. Site characteristics

B.1 Site characteristics

Characteristic	Details
Local context	The application area is over the 198 kilometre long Yamarna Gas Pipeline. The closest town to the application area is Laverton, located approximately three kilometres north from the southern portion of the pipeline. The application area is located within two Interim Biogeographic Regionalisation of Australia (IBRA) regions, the Great Victoria Desert and Murchison (GIS Database). The majority of the application area is located within the Great Victoria Desert bioregion. The vegetation of the Great Victoria Desert and Murchison bioregions are well represented in Western Australia and are considered to be of least concern with regards to conservation status (Government of Western Australia, 2019).
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages.
Conservation areas	The closest conservation area is the Yeo Lake Nature Reserve which is located approximately 12.8 kilometres to the east of the application area.
Vegetation description	Beard vegetation associations have been mapped for the whole of Western Australia. The vegetation of the application area is broadly mapped as the following Beard vegetation associations (GIS Database): 18: Low woodland; mulga (*Acacia aneura*); 24: Low woodland; *Allocasuarina cristata*; 84: Hummock grasslands, open low tree & mallee steppe; marble gum & mallee (*Eucalyptus youngiana*) over hard spinifex *Triodia basedowii* between sand hills; 1239: Hummock grasslands, open medium tree & mallee steppe; marble gum & mallee (*E. youngiana*) over hard spinifex *Triodia basedowii* on sandplain; and 1446: Succulent steppe with scrub; mulga over bluebush. A flora and vegetation survey was undertaken over the application area by Botanica (2017) during 14 - 21 August 2015, 8 November 2015, 1 - 2 September 2016, 9 - 10 January 2017 and 6 - 8 April 2017 (Botanica 2017). A total of 54 vegetation types were identified within the application area: **Casuarina Forests and Woodlands/Acacia Shrublands:** 1. Low woodland of *Casuarina pauper /Acacia incurvaneura* over low scrub of *A. quadrimarginea/Dodonaea viscosa* and low heath of *Frankenia georgei/Prostanthera wilkieana* on breakaway; **Acacia Forests and Woodlands:** 2. Low woodland of *Acacia aptaneura* over low scrub *Hakea preissii/A. colletioides/Atriplex bunburyana* and dwarf scrub *Maireana pyramidata* on clay-loam plain; 3. Low forest of *Acacia incurvaneura* over low scrub of *A. ramulosa var. ramulosa/Eremophila latrobei subsp. glabra/ Senna artemisioides (DC.) Randell subsp. ×artemisioides /Eremophila jucunda* and dwarf scrub of *Eremophila forrestii* subsp. *forrestii* on clay-loam plain; **Acacia Open Woodlands:** 4. Low woodland of *Acacia caesaneura/A. incurvaneura* over heath of *Eremophila latrobei* subsp. *filiformis/ Senna artemisioides (DC.) Randell subsp. ×artemisioides* and low grass of *Eragrostis eriopoda* on clay-loam plain; 5. Open low woodland of *Acacia incurvaneura/Hakea preissii* over low scrub *Eremophila pantonii/Maireana pyramidata/Maireana sedifolia/Maireana glomerifolia* and dwarf scrub *Maireana triptera* on clay-loam plain, 6. Open low woodland of *Acacia aptaneura* over low scrub of E*remophila pantonii, Atriplex bunburyana, Cratystylis subspinescens* and *Maireana pyramidata* on clay-loam plain; **Acacia Open Woodlands:**

Characteristic	Details
	7. Open low woodland of *Acacia ayersiana/A. caesaneura* over low scrub of *A. ramulosa* var. *ramulosa/A. tetragonophylla/Eremophila* spp. and dwarf scrub of *Maireana triptera/Solanum lasiophyllum/Ptilotus obovatus* and open low grass of *Eragrostis eriopoda* on clay-loam plain; **Acacia Shrublands:** 8. Scrub of *Acacia burkittii* over low scrub of *Senna artemisioides* subsp. *filifolia* and dwarf scrub of *Ptilotus obovatus*/low grass of *Aristida contorta* on clay-loam plain; **Mallee Open Woodlands and Sparse Mallee Shrublands:** 9. Very open tree mallee of *Eucalyptus lucasii*/low woodland of *Acacia caesaneura/A. incurvaneura* over heath of *Eremophila latrobei* subsp. *glabra* and very open low grass of *Eragrostis eriopoda* on clay-loam plain; **Mallee Woodlands and Shrublands/ Acacia Forests and Woodlands:** 10. Open tree mallee of *Eucalyptus lucasii*/Low woodland of *Acacia incurvaneura/A. caesaneura* over heath of *Eremophila latrobei* subsp. *filiformis* and very open low grass of *Eragrostis eriopoda* on clay-loam plain, 11. Open tree mallee of *Eucalyptus youngiana*/Forest of *Acacia incurvaneura / A. mulganeura* over heath of *Eremophila forrestii* subsp. *forrestii* and dense low grass of *Eragrostis eriopoda* on clay-loam plain; **Acacia Forests and Woodlands:** 12. Low woodland of *Acacia aptaneura/Acacia caesaneura* over open low scrub of *Eremophila latrobei* subsp. *latrobei* and dwarf scrub of *Eremophila gilesii/Eremophila malacoides* with occasional *Eragrostis eriopoda* in drainage depression; **Acacia Open Woodlands**: 13. Open low woodland of *Acacia incurvaneura* over dwarf scrub of *Maireana pyramidata*/Low heath of *Frankenia georgei* and *Sclerolaena densiflora* in drainage depression; 14. Open low woodland of *Acacia caesaneura/A. macraneura /A. ayersiana* over low scrub of *A. ramulosa* var. *ramulosa/Eremophila forrestii* subsp. for*restii/Eremophila margarethae/Maireana triptera* and open low grass of *Eragrostis laniflora* in drainage depression; 15. Open low woodland of *Acacia aptaneura/A. incurvaneura* over low scrub of *A. craspedocarpa/A. tetragonophylla/Eremophila margarethae/Atriplex bunburyana* and dwarf scrub of *Cratystylis subspinescens* in drainage depression; **Mallee Woodlands and Shrublands/ Acacia Forests and Woodlands:** 16. Very open tree mallee of *Eucalyptus lucasii*/Low forest of *Acacia burkittii/A. incurvaneura/A. caesaneura* over low scrub of *Eremophila latrobei* subsp. *latrobei/ Senna artemisioides (DC.) Randell subsp. ×artemisioides* and dwarf scrub of *Eremophila gilesii/Ptilotus obovatus* in drainage depression; **Acacia Forests and Woodlands:** 17. Low woodland of *Acacia aptaneura/A. caesaneura* over heath of *Scaevola spinescens/Senna artemisioides* subsp. x *artemisioides/Senna artemisioides* subsp. *helmsii* and low heath of *Ptilotus obovatus/Maireana triptera* on quartz/rocky plain; 18. Low woodland of *Acacia incurvaneura* over heath of *Eremophila latrobei* subsp. *latrobei* and low heath of *Eremophila exilifolia* on quartz, rocky plain; 19. Low woodland of *Acacia aptaneura/A. incurvaneura* over low scrub of *Eremophila abietina* subsp. *ciliata/Senna artemisioides* subsp. *helmsii* and dwarf scrub of *Ptilotus obovatus* on quartz/rocky plain; 20. Low woodland of *Acacia aptaneura/A. caesaneura* over scrub of *A. burkittii/Senna artemisioides* subsp. *filifolia* and low scrub of *Ptilotus obovatus*/mid-dense hummock grass of *Triodia irritans* on quartz/rocky plain; 21. Low woodland of *Acacia burkittii* over low scrub of *Senna artemisioides (DC.) Randell subsp. ×artemisioides* and mid-dense hummock grass of *Triodia irritans* on quartz/rocky plain; 22. Open low woodland of *Acacia caesaneura*/open scrub of *Eremophila oldfieldii* subsp. *angustifolia* over low scrub of *A. burkittii/Dodonaea lobulata* and dwarf scrub of *Ptilotus obovatus* on quartz/rocky plain; 23. Low forest of *Acacia caesaneura/A. quadrimarginea* over low scrub of *Senna artemisioides* subsp. *helmsii/A. tetragonophylla/A. burkittii/Eremophila margarethae/Ptilotus obovatus/Solanum lasiophyllum* and dwarf scrub of *Maireana triptera* on quartz/rocky plain; 24. Low woodland of *Acacia aptaneura/A. caesaneura/A. incurvaneura* over open low scrub of *A. ramulosa* var. *ramulosa/Senna artemisioides* subsp. *filifolia* and dwarf scrub of *Ptilotus obovatus*/open low grass of *Eragrostis eriopoda* on quartz/rocky plain; **Acacia Open Woodlands:** 25. Open low woodland of *Acacia caesaneura* over low scrub of *Eremophila pantonii/Ptilotus obovatus* and dwarf scrub of *Maireana triptera* on quartz/rocky plain; **Casuarina Forests and Woodlands:** 26. Low woodland of *Casuarina pauper* over heath of *Eremophila scoparia/ Senna artemisioides (DC.) Randell subsp. ×artemisioides* and low heath of *Ptilotus obovatus/Maireana triptera* on quartz/rocky plain; **Eucalypt Woodlands:** 27. Open low woodland of *Eucalyptus gypsophila* over low scrub of *Eremophila scoparia* and dwarf scrub of *Ptilotus obovatus* on quartz/rocky plain;

Characteristic	Details
	Acacia Forests and Woodlands: 28. Open low woodland *of Acacia quadrimarginea* over heath of *Eremophila abietina* subsp. *ciliata* and dwarf scrub of *Ptilotus obovatus* on rocky hillslope; 29. Low woodland of *Acacia caesaneura*/*A. incurvaneura* over low scrub of *Scaevola spinescens/Senna cardiosperma* and dwarf scrub of *Ptilotus obovatus/Sida* sp. *excedentifolia* (J.L. Egan 1925) on rocky hillslope; 30. Low Forest of *Acacia caesaneura/A. incurvaneura* over low scrub of *A. ramulosa* var. *ramulosa/Dodonaea rigida/*Senna spp. and dwarf scrub of *Ptilotus obovatus* on Banded Ironstone Hill; **Acacia Forests and Woodlands:** 31. Low forest of *Acacia caesaneura/A. incurvaneura* over dense hummock grass of *Triodia basedowii* in sandplain; 32. Low forest of *Acacia caesaneura/A. incurvaneura* over low scrub of mixed shrubs and dwarf scrub of *Eremophila gilesii/*mid-dense hummock grass of *Triodia irritans* in sandplain; 33. Forest of *Acacia aptaneura/A. caesaneura/A. incurvaneura* over low scrub of *A. ramulosa* var. *ramulosa* and dense tall grass of *Eragrostis eriopoda* in sandplain; 34. Forest of *Acacia caesaneura/A. incurvaneura* over low scrub of *A. ramulosa* var. *ramulosa/Eremophila forrestii* subsp. *forrestii* and mid-dense hummock grass of *Triodia irritans* in sandplain; 35. Low woodland of *Acacia aptaneura/A. caesaneura/A. incurvaneura* over open low scrub of *A. mulganeura/Eremophila latrobei* subsp. *latrobei* and dense hummock grass of *Triodia irritans* in sandplain, 36. Low woodland of *Acacia aptaneura/A. incurvaneura* over heath of *Cratystylis subspinescens* and dwarf scrub of *Frankenia setosa/*mid-dense hummock grass of *Triodia irritans* in sandplain; 37. Forest of *Acacia caesaneura* over scrub of *A. ramulosa* var. *ramulosa/Senna artemisioides* subsp. *filifolia* and low heath of *Ptilotus obovatus* in sandplain; **Eucalypt Woodlands:** 38. Low woodland of *Eucalyptus gongylocarpa* over heath of *Acacia abrupta/A. ligulata* and dense hummock grass of *Triodia basedowii* in sandplain; **Eucalypt Woodlands / Mallee Woodlands and Shrublands:** 39. Low woodland of *Eucalyptus gongylocarpa* over shrub mallee of *E. youngiana* and mid-dense hummock grass of *Triodia basedowii* in sandplain; **Mallee Woodlands and Shrublands/ Acacia Forests and Woodlands:** 40. Open tree mallee of *Eucalyptus trivalva/*Low woodland of *Acacia craspedocarpa* over open low scrub of *A. desertorum* var. *desertorum/A. ligulata* and mid-dense hummock grass of *Triodia basedowii* in sandplain; 41. Very open tree mallee of *Eucalyptus youngiana/*Open low woodland of *Acacia caesaneura* over low scrub of *A. ligulata* and hummock grass of *Triodia basedowii* in sandplain; **Mallee Woodlands and Shrublands:** 42. Open tree mallee of *Eucalyptus youngiana/E. trivalva* over heath of *Acacia abrupta* and dense hummock grass of *Triodia basedowii* in sandplain; 43. Open tree mallee of *Eucalyptus concinna*/*E. youngiana* over heath of *Acacia desertorum* var. *desertorum*/*A. grasbyi* and low heath of *Aluta maisonneuvei* subsp. *auriculata*/mid-dense hummock grass of *Triodia irritans* in sandplain; 44. Open tree mallee of *Eucalyptus concinna* over low scrub of *Eremophila latrobei* subsp. *filiformis* and mid-dense hummock grass of *Triodia irritans* in sandplain; 45. Open tree mallee of *Eucalyptus glomerosa/E. youngiana* over low scrub of *Acacia ligulata* and dense hummock grass of *Triodia irritans* in sandplain; 46. Open tree mallee of *Eucalyptus youngiana* over heath of *Acacia desertorum* var. *desertorum/A. grasbyi* and low heath of *Aluta maisonneuvei* subsp. *auriculata/*mid-dense hummock grass of *Triodia irritans* in sandplain; 47. Open tree mallee of *Eucalyptus youngiana* over low scrub of *Acacia desertorum* var. *desertorum* and mid-dense hummock grass of *Triodia irritans* in sandplain; 48. Tree mallee of *Eucalyptus youngiana* over low scrub of *Acacia ligulata* and dense hummock grass of *Triodia basedowii* in sandplain; 49. Open tree mallee of *Eucalyptus trivalva* over low scrub of *Acacia pachyacra/Senna artemisioides* subsp. *filifolia* and mid-dense hummock grass of *Triodia irritans* in sandplain; **Regrowth, modified native vegetation:** 50. Regrowth open low scrub of *Acacia abrupta* over dense hummock grass of *Triodia basedowii* in sandplain; 51. Regrowth open tree mallee of *Eucalyptus youngiana* over low scrub of *Acacia desertorum* var. *desertorum/A. grasbyi* and low heath of *Aluta maisonneuvei* subsp. *auriculata/*mid-dense hummock grass of *Triodia irritans* in sandplain; 52. Regrowth low woodland of *Eucalyptus gongylocarpa* over shrub mallee of *E. youngiana* and mid-dense hummock grass of *Triodia basedowii* in sandplain; 53. Regrowth open tree mallee of *Eucalyptus trivalva* over very open shrub mallee of *E. youngiana* and low heath of *Alyogyne pinoniana/Sida calyxhymenia* in sandplain;

Characteristic	Details
	Eucalypt Woodlands/Mallee Woodlands and Shrublands: 54. Open low woodland of *Eucalyptus gongylocarpa* over open shrub mallee of *E. youngiana* and mid-dense hummock grass of *Triodia basedowii* on sand dune.
Vegetation condition	Botanica (2017) summarised the vegetation condition as ranging from good (fire, exploration, grazing, vehicle access and introduced species) to very good (fire and camel grazing) (Trudgen, 1991). There were 27 vegetation communities ranked as being in good condition and 29 communities were in very good condition. The vegetation at that time was in various stages of fire regrowth ranging from five years to greater than 10 years. The full Trudgen (1991) condition rating scale is provided in Appendix D.
Climate and landform	Average annual rainfall at the Laverton weather station is 235.2 millimetres (BoM, 2022). The application area is mapped at an elevation of 450 to 500 metres (GIS Database). Seven landform types were identified as part of the flora and fauna survey by Botanica (2017). These included breakaway, clay-loam plain, drainage depression, quartz/rocky plain, rocky hillslope, sandplain and sand dune landforms.
Soil description	The soil map units which are broadly mapped across the application area are: 279Br: Prominent ridges of banded iron formation supporting mulga shrublands and occasional minor halophytic communities; 279Mr: Distributary alluvial fans and wash plains supporting mulga - chenopod shrublands; 279Lv: Greenstone hills and ridges with acacia shrublands; 279Nu: Gently undulating stony plains, minor limonitic low rises and drainage floors supporting mulga and halophytic shrublands; 279Ju: Hardpan plains with variable gravelly mantles and minor sandy banks supporting weakly groved mulga shrublands; 279Vi: 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; 279Bv: Irregular low ironstone hills with stony lower slopes supporting mulga shrublands; 279Tg: Gravelly hardpan plains and sandy banks with mulga shrublands and wanderrie grasses; 279Gu: Extensive, gently undulating calcareous stony plains supporting bluebush shrublands; 279Le: Low greenstone hills and stony plains supporting mixed chenopod shrublands; 279Wy: Granite domes, hills and tor fields with gritty-surfaced fringing plains supporting mulga and granite wattle shrublands; 279Gr: Stony plains and low rises based on granite supporting mainly halophytic low shrublands; 279Ar: Broad plains with mantles of ironstone gravel supporting mulga shrublands with wanderrie grasses; 279Wn: Gently undulating stony plains and low rises with quartz mantles on granite, supporting acacia-eremophila shrublands; 274Bu: Gently undulating sandplain with occasional linear dunes and stripped surfaces supporting spinifex grasslands with mallees and acacia shrubs; 274Sh: Breakaways, kaolinised footslopes and extensive gently sloping plains on granite supporting mulga shrublands and minor halophytic shrublands; 274Wg: Sandplains and stripped granite or laterite surfaces with low fringing breakaways and lower plains; supports bowgada and mulga shrublands with wanderrie grasses and minor halophytic shrublands; 274Ca: Salt lakes with fringing saline alluvial plains, kopi dunes and sandy banks, supporting halophytic shrublands and acacia tall shrublands; 274h5: Scarpland--low lateritic breakaways on granites and gneisses; 274m4: Plains with extensive gravel pavements and small tracts of longitudinal dunes; 274Bu: Gently undulating sandplain with occasional linear dunes and stripped surfaces supporting spinifex grasslands with mallees and acacia shrubs; and 274b2: Plains and dunes--longitudinal and ring dunes with interdune corridors and plains; occasional salt pans (DPIRD, 2022).
Land degradation risk	The application area is not mapped within any known land degradation risk factor zones (GIS Database). Northcote, et al. (1960-68) describes soils on plains in the application area as shallow, red earths and earthy loams underlain by a red-brown hardpan (GIS Database). Soils on gently undulating to low, hilly pediments and traversed by numerous seasonal streams as shallow, earthy loams with shallow red earths underlain by red-brown hardpan (GIS Database). These soils do not readily erode but may be subjected to minor wind erosion once vegetation has been cleared. Localised surface water run-off may occur following heavy rainfall events and if surface water drainage on-site is not managed. It is unlikely the proposed clearing will change soil salinity levels or impact on-site or off-site nutrient export.

Characteristic	Details
	The pipeline location intersects several land systems (GIS Database). The majority of the application area lies within the Bullimore land system which is well vegetated and not subject to erosion (Pringle et al., 1994; GIS Database). The application area also intersects with a small portion of the Wilson land system (GIS Database). The Wilson land system consists of large creeks with extensive distributary fans supporting mulga and halophytic shrublands (Pringle et al., 1994). The vegetation of the Wilson land system has been severely degraded and eroded from grazing pressure (Pringle et al., 1994).
Waterbodies	The desktop assessment indicated that several minor, non-perennial watercourses transect the area proposed to be cleared (GIS Database).
Hydrogeography	There are no Public Drinking Water Source Areas (PDWSA) located within the application area. The Laverton Water Reserve is the nearest PDWSA and is located approximately four kilometres north of the application area (GIS Database). The application area is within the Goldfields Groundwater Area as proclaimed under the *RIWI Act 1914* (GIS Database). Groundwater salinity within the application area is mapped as ranging from zero to 14,000 milligrams per litre total dissolved solids, which is considered saline (GIS Database).
Flora	A desktop assessment undertaken by Botanica (2017) identified no Threatened or Priority flora within the survey area. There were 32 Priority flora taxa recorded within a 120 kilometre radius of the gas pipeline survey area (Botanica, 2017). These species were targeted during a Level 1 flora survey and Botanica (2017) identified four Priority flora taxa present within the application area: • *Calytrix praecipua* (P3); • *Calytrix warburtonensis* (P2); • *Olearia arida* (P4); and • *Thryptomene nealensis* (P3). The desktop assessment was repeated by the assessing officer and 55 conservation significant species were identified within a 120 kilometre radius of the gas pipeline, including one threatened species *Seringia exastia*. As some of these species were not identified in the desktop study at the time of the Botanica survey in 2017, they may not have been included in the targeted search.
Ecological communities	The application area overlaps with the Mount Jumbo Range vegetation complex (banded ironstone formation) which is a Priority Ecological Community (PEC) (GIS Database). The Mount Jumbo Range PEC is Priority 3 and extends in a north-south direction over a large area of approximately 2,528 hectares (GIS Database). According to Botanica (2017), vegetation type 30 was recorded within the application area and is representative of a BIF community, which is described as Low Forest of *Acacia caesaneura*/*A. incurvaneura* over low scrub of *A. ramulosa* var. *ramulosa/Dodonaea rigida/Senna* spp. and dwarf scrub of *Ptilotus obovatus* on Banded Ironstone Hill. Approximately 110 hectares of the mapped PEC intersects the application area, which has a maximum potential impact of only 4.4% of the PEC (GIS Database).
Fauna	Botanica (2017) identified six broad scale fauna habitats. During the field survey, a total of 48 native fauna species were observed or positively identified from foraging evidence, scats, tracks, skeletons or calls (Botanica, 2017). No Threatened or Priority fauna were identified, however the following conservation significant species were considered likely to occur: • Buff-snouted Blind Snake *Ramphotyphlops margaretae* (Priority 2) • Malleefowl *Leipoa ocellata* (Vulnerable) • Peregrine Falcon *Falco peregrinus* (Other specially protected fauna) • Princess Parrot *Polytelis alexandrae* (Priority 4) • Rainbow Bee-eater *Merops ornatus* (Migratory (EPBC Act)) • Striated Grasswren (sand plain) *Amytornis striatus striatus* (Priority 4) • Brush-tailed Mulgara *Dasycercus blythi* (Priority 4) • Long-tailed Dunnart *Sminthopsis longicaudata* (Priority 4)

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."* Assessment: The vegetation communities within the application area are typical of the local region and not considered to be unusually diverse (Botanica, 2017). A portion of the application area intersects the Mount Jumbo Range vegetation complex (banded ironstone formation) which is a priority three PEC (Botanica 2017; GIS Database). APA Operations Pty Ltd (2017) advised that a much larger clearing area would be required to avoid the entire BIF vegetation assemblage and to realign the pipeline, which would result in additional environmental disturbance. The pipeline corridor route was therefore chosen to minimise the impacts on the environment (APA Operations Pty Ltd, 2017). The application area contain records of four species of Priority flora (Botanica, 2017). The final pipeline route was designed to avoid all Priority flora (APA Operations Pty Ltd, 2017). No Threatened or Priority fauna were identified during a Level 1 fauna survey, however several conservation significant species were considered likely to occur (Botanica, 2017).	Not likely to be at variance (as per CPS 7660/1)	No
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The fauna survey did not record any Threatened fauna species within the application area and no fauna habitat in the application area is considered to be critical to the survival of conservation significant fauna species (Botanica, 2017).	Not likely to be at variance (as per CPS 7660/1)	No
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: A search of available databases was undertaken and no Threatened flora have been recorded in the application area (GIS Database). A flora survey was also undertaken by Botanica (2017) which did not record any species of Threatened flora in the application area.	Not likely to be at variance (as per CPS 7660/1)	No
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."* Assessment: The area proposed to be cleared does not contain species representative of a Threatened Ecological Community (TEC) listed under the BC Act or the EPBC Act.	Not likely to be at variance (as per CPS 7660/1)	No
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."* Assessment: The mapped Beard vegetation associations retain 99% or above of the pre-European extent at the state level and bioregional levels (Government of Western Australia, 2019). This is consistent with the national objectives and targets for biodiversity conservation in Australia. The areas proposed to be cleared are not considered to be a remnant of native vegetation or part of a significant ecological linkage in the local area (Botanica, 2017; GIS Database).	Not at variance (as per CPS 7660/1)	No
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment:	Not at variance (as per CPS 7660/1)	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of any conservation areas.		
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."* Assessment: According to the available databases, several, minor, ephemeral watercourses intersect the application area (GIS Database). The proposed pipeline route occurs over native vegetation associated with drainage depressions. Therefore, the proposed clearing will impact on vegetation associated with a watercourse. Based on vegetation mapping by Botanica (2017), five vegetation types are identified as growing in association with a watercourse (Botanica, 2017). These vegetation types include: • Type 12 (Acacia Forests and Woodlands), • Types 13, 14 and 15 (Acacia Open Woodlands), and • Type 16 (Mallee Woodlands and Shrublands/ Acacia Forests and Woodlands). Descriptions of these vegetation types are included in Appendix B. These drainage depression vegetation types consist of a small proportion (295 hectares or 6.4%) of the application area (Botanica, 2017). These watercourses are only likely to inundate following significant rainfall or cyclonic events. The proposed clearing is unlikely to result in any significant impact to any watercourse or wetland provided natural surface water flow patterns are not disturbed.	At variance (as per CPS 7660/1)	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The soils mapped within the application area do not readily erode but may be susceptible to minor wind erosion after vegetation has been cleared. It is unlikely the proposal will change soil salinity levels or impact on-site or off-site nutrient export. The application area intersects several, ephemeral watercourses. Localised surface water run-off may occur following heavy rainfall events and if surface water drainage on-site is not managed.	Not likely to be at variance (as per CPS 7660/1)	No
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: The application area is not located within a Public Drinking Water Source Area (GIS Database). The annual evaporation rate (2,400 millimetres) significantly exceeds the annual average rainfall (235.2 millimetres) for the local area (BoM, 2022; GIS Database). Any surface water within the application area is likely to only remain for short periods following significant rainfall events. The proposed clearing is not likely to cause deterioration in the quality of any surface water within or outside of the application area. With high annual evaporation rates and low annual rainfall, there is little recharge into regional groundwater. The proposed clearing is unlikely to further deteriorate the quality of underground water (GIS Database).	Not likely to be at variance (as per CPS 7660/1)	No
Principle (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."* Assessment: With low average annual rainfall and a high average annual evaporation rate there is likely to be little surface flow during normal seasonal rains (BoM, 2022). Whilst large rainfall events may result in flooding of the area, the proposed clearing is not likely to lead to an increase in incidence or intensity of flooding. Given the linear nature of the clearing and the proposed clearing area in relation to the size of the application area, the clearing is not likely to increase the potential for flooding on a local or catchment scale.	Not likely to be at variance (as per CPS 7660/1)	No

Assessment against the clearing principles	Variance level	Is further consideration required?

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.
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. Sources of information

E.1.GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Clearing Regulations – Schedule One Areas (DWER-057)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- 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)

E.2.References

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Environmental Protection Authority (EPA) (2016) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment. Available from: http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf

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4. Glossary

Acronyms:

AS	Australian Standard
BC Act	*Biodiversity Conservation Act 2016,* Western Australia
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
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 (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

T **Threatened species:**

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 that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

Threatened flora is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

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. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

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. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

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. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

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).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

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. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

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).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and 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.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

CD **Species of special conservation interest (conservation dependent fauna)**
Fauna of special conservation need being species 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).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

OS **Other specially protected species**
Fauna 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).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

P **Priority species:**

Possibly threatened species that do not meet survey criteria, 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 priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

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

Assessment of Priority codes 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**
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, e.g. 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 and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 **Priority Two - Poorly-known species**
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, e.g. 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 and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 **Priority Three - Poorly-known species**
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. Such species are in need of 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 Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

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.