



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5049/5
Permit Holder:	BHP Iron Ore Pty Ltd
Duration of Permit:	6 July 2012 – 31 October 2024

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of railway construction, maintenance and associated activities.

2. Land on which clearing is to be done

Special Lease J998591 (Goldsworthy Rail Lease), being Lot 47 on Deposited Plan 241374, Pippingarra.

3. Area of Clearing

The Permit Holder must not clear more than 5 hectares of native vegetation within the area cross hatched yellow on attached Plan 5049/5.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the right to access land under the *Land Administration Act 1997* or any other written law.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

6. Avoid, minimise and reduce the impacts and extent of clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must apply the following principles, set out in descending order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

7. Weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following measures to minimise the risk of the introduction and spread of *weeds*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

PART III - RECORD KEEPING AND REPORTING

8. Records must be kept

The Permit Holder must maintain the following records in relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date that the area was cleared; and
- (c) the size of the area cleared (in hectares).
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 6 of this Permit; and
- (e) actions taken to minimise the risk of the introduction and spread of weeds in accordance with condition 7 of this Permit

9. Reporting

- (a) The Permit Holder must provide to the *CEO* on or before 1 October of each year, a written report:
 - (i) of records required under condition 8 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 July and 30 June of the preceding year.
- (b) Prior to 31 October 2024, the Permit Holder must provide to the *CEO* a written report of records required under condition 8 of this Permit where these records have not already been provided under condition 9(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

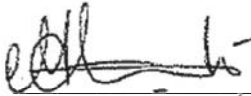
CEO means the Chief Executive Officer of the Department responsible for administering the *Environmental Protection Act 1986*;

fill means material used to increase the ground level, or fill a hollow;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



Meenu Vitarana
A/MANAGER
NATIVE VEGETATION REGULATION

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

20 October 2021

Plan 5049/5

118°38'16.800"E

118°38'49.200"E

118°39'21.600"E

118°39'54.000"E

20°23'6.000"S

20°23'38.400"S

20°24'10.800"S

20°24'43.200"S

20°23'6.000"S

20°23'38.400"S

20°24'10.800"S


20°24'43.200"S

TOWN OF PORT HEDLAND

Madigan Rd

Buttweid Rd

Legend

 CPS areas approved to clear


 Land Tenure

 Local Government Authorities

Road Centrelines

 Highway

 Local Rd - Sealed

 0 - 100000

 Local Rd - Other

Image



Meenu Vitarana

2021.10.20

13:44:59 +08'00'

Officer delegated under section 20 of
the Environmental Protection Act 1986

0 300 600 900 1,200 m



1:15,000

MGA Zone 50
Geocentric Datum of Australia 1994



GOVERNMENT OF
WESTERN AUSTRALIA



1. Application details

1.1. Permit application details

Permit application No.: 5049/5
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: BHP Iron Ore Pty Ltd
Application received date: 26 May 2021

1.3. Property details

Property: Lot 47 on Deposited Plan 241374, Pippingarra
Local Government Authority: Town of Port Hedland
Localities: Pippingarra

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
5		Mechanical Removal	Railway construction or maintenance

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 20 October 2021

Reasons for Decision: The clearing permit amendment application was received on 26 May 2021 and has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*. It has been concluded that the assessment against the clearing principles is unchanged since the assessment for clearing permit CPS 5049/4 and that the proposed clearing is not likely to be at variance to any of the clearing principles.

The Delegated Officer took into consideration that the proposed amendment relates only to extending the permit duration by three years to 31 October 2024 and amending the Permit Holder details to reflect an updated company name. The Delegated Officer considered that no changes to the clearing footprint or the total area of clearing authorised were proposed under the amendment.

A review of current environmental information identified that the environmental values present within the permit area remain largely unchanged from the previous assessments of the permit. The Delegated Officer considered that the permit area is unlikely to contain significant habitat for conservation significant flora or fauna species or to include vegetation representative of any conservation significant ecological community, given the vegetation type and habitat values within the permit area are well-represented in the extensively vegetated local area. The Delegated Officer also considered that the extent of the mapped vegetation types and remnant vegetation in the local area had not changed significantly since the previous assessments of the permit. Given the distance and separation from the nearest occurrence, the Delegated Officer considered that the proposed clearing was unlikely to impact on the environmental values of a conservation area or riparian communities, and was unlikely to result in deterioration of the quality of surface or groundwater sources. vegetation within the permit area may be growing in association with a watercourse and that the proposed clearing had the potential to result in short-term impacts to water quality. The Delegated Officer also determined that the proposed clearing was unlikely to cause appreciable land degradation or increase the incidence or intensity of flooding, based on mapped soil types and contours. The Delegated Officer considered these findings to be unchanged from the previous assessments of the permit.

In considering the above, the Delegated Officer determined that the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values remains unchanged from the original assessments and can found in the Decision Report prepared for Clearing Permit CPS 5049/1. The Delegated Officer determined that the proposed clearing can be managed to be environmentally acceptable with the existing avoid and minimise, and weed control conditions.

2.

3. Site Information

Clearing Description:

The proposed amendment to CPS 5049/4 is for the purpose of extending the permit duration by three years to 31 October 2024 and amending the Permit Holder details to reflect an updated company name. The clearing footprint and total area of clearing proposed under CPS 5049/5 remain unchanged from the previous version of the permit.

CPS 5049/4 allowed for the clearing of up to 5 hectares of native vegetation within Special Lease J998591 (Goldsworthy Rail Lease), being Lot 47 on Deposited Plan 241374, Pippingarra, for the purpose of railway construction, maintenance, and associated activities.

Vegetation Description

The vegetation within the permit area is mapped as Beard vegetation association 647, described as hummock grasslands, dwarf shrub steppe, *Acacia translucens* over soft spinifex (Shepherd, et al, 2001).

The Port Hedland Regional Flora and Vegetation Assessment mapped the vegetation within the permit area as Sand Plain B, described as open *Acacia colei* var. *colei* shrublands over low *Acacia stellaticeps* shrublands over *Triodia epactia* and *Triodia secunda* hummock grassland mosaic (ENV Australia, 2011b).

Vegetation Condition

The Port Hedland Regional Flora and Vegetation Assessment mapped the vegetation within the permit area as being in Very Good to Completely Degraded (Keighery, 1994) condition (ENV Australia, 2011b), described as:

- Very Good: Vegetation structure altered, with obvious signs of disturbance, and
- Completely Degraded: Basic vegetation structure severely impacted by disturbance, with scope for regeneration but not to a state approaching good condition without intensive management (Keighery, 1994).

Soil Type

The soil type within the permit area is mapped as the Uaroo System (281Ua), described as broad sandy plains, pebbly plains and drainage tracts supporting hard and soft spinifex hummock grasslands with scattered acacia shrubs. (DPIRD, 2021).

Local Area

The local area referred to in the assessment of this application is defined as a 50-kilometre (km) radius measured from the perimeter of the permit area.



Figure 1. The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

4. Avoidance and minimisation measures

The Permit Holder advised that Special Lease J998591 (Goldsworthy Rail Lease) was to be extended to 31 October 2024, to enable continued use of the railway line from Goldsworthy Junction to Yarrie (BHP, 2021a). The railway line forms an integral part of the iron ore production and export systems that run from the Goldsworthy mining area to port facilities at Finucane Island in Port Hedland. The Permit Holder indicated that an extension to the duration of CPS 5049/4 was required to allow for the ongoing maintenance of the railway infrastructure for the extended duration of Special Lease J998591 (BHP, 2021a). The Permit Holder advised that clearing of native vegetation for ongoing maintenance and activities associated with the railway would be undertaken only as necessary and would ensure that the minimum amount of native vegetation is disturbed (BHP, 2021a).

5. Assessment of application against clearing principles

The proposed amendment to CPS 5049/4 relates to extending the permit duration by three years to 31 October 2024 to align with the extension of Special Lease J998591 (Goldsworthy Rail Lease) and amending the Permit Holder details to reflect an updated company name. A review of current environmental information indicates that the environmental values present within the existing permit area remain largely unchanged from the previous assessments of the permit.

Conservation significant flora

In regard to conservation significant flora, the previous assessments of Clearing Permit CPS 5049 considered that the permit area was unlikely to include threatened or priority flora species, given the Port Hedland Regional Flora and Vegetation Assessment in 2011 did not identify any individuals within the permit area (ENV Australia, 2011b). Noting that it has been ten years since the Port Hedland Regional Flora and Vegetation Assessment was undertaken, the Delegated Officer considered that the extent of threatened and priority flora species in the local area may have changed and a desktop review of current databases was undertaken for the local area. The desktop assessment identified a total of 16 threatened or priority flora species within the local area, comprising two Priority 1 (P1) flora, one Priority 2 (P2) flora, nine Priority 3 (P3) flora, three Priority 4 (P4) flora, and one threatened flora (Western Australian Herbarium, 1998-). None of these records occur within the permit area itself. According to available databases, there have been no new records of these species within the local area since the previous assessment of the permit was undertaken in 2018 and it is likely that impacts to these species were considered during the previous assessments of the permit. Based on a review of current environmental information, site characteristics, and habitat preferences, eight conservation significant flora species recorded in the local area have the potential to occur within the permit area (see Appendix A). With consideration of the site characteristics, conservation status of the species, and the distribution and extent of existing records, impacts to one of these species, *Tephrosia rosea* var. Port Hedland (A.S. George 1114) (Priority 1), have the potential to be significant to its conservation status.

Tephrosia rosea var. Port Hedland (A.S. George 1114) is an erect, spindly shrub currently known from 40 Western Australian Herbarium records from Karratha to Port Hedland and is associated with Acacia shrubland over hummock grasslands in sandy and sandy loam soils, and often tan, deep sands in coastal dunes (Western Australian Herbarium, 1998-). It is also hypothesised that *Tephrosia rosea* var. Port Hedland (A.S. George 1114) is a disturbance opportunist, given the density of existing records along roadsides and areas of relatively frequent fire (Butcher et al., 2017). At the time of the Port Hedland Regional Flora and Vegetation Assessment in 2011, *Tephrosia rosea* var. Port Hedland (A.S. George 1114) was known as *Tephrosia rosea* var. *venulosa* (Butcher et al., 2017) and a record of the species was identified within 100 metres of the permit area (ENV Australia, 2011b). Given the vicinity of existing records, the lack of current survey information for the permit area, and that the permit area includes open Acacia shrublands over *Triodia* hummock grasslands that have been disturbed by existing infrastructure, it is considered that *Tephrosia rosea* var. Port Hedland (A.S. George 1114) may occur within the permit area. However, the permit area occurs approximately 4.5 kilometres inland and is likely to lack the coastal dune sands that are typically associated with significant habitat for the species. According to Western Australian Herbarium records, the species is also typically locally abundant in areas where it occurs, with many Herbarium records comprising populations of greater than 100 individual plants (Western Australian Herbarium, 1998-). This is supported by the findings of the Port Hedland Regional Flora and Vegetation Assessment, which identified that a total of 4597 individuals have been recorded within the Port Hedland Regional Flora and Vegetation Assessment Study Area during surveys undertaken by ENV Australia between 2008 and 2011 (ENV Australia, 2011b). Given the above, the extent of known records and populations, and the range of the species, the occurrence of individuals within the permit area is unlikely to be locally or regionally significant. Further, given the extent of the proposed clearing along existing infrastructure, it is unlikely that the proposed clearing will significantly impact the conservation status of *Tephrosia rosea* var. Port Hedland (A.S. George 1114) or will result in impacts to habitat significant for the continuation of the species.

Given the above, the Delegated Officer determined that the assessment of impacts to flora species remains unchanged from the previous assessments of the permit and that the proposed clearing is unlikely to result in significant impacts to conservation significant flora species.

Conservation significant fauna

In regard to fauna, a targeted fauna survey was not undertaken within the permit area as part of the Port Hedland Regional Fauna Assessment in 2011, but the fauna habitat within the permit area was described as Sandplain, consisting of low Acacia shrublands over *Triodia* hummock grasslands with a moderate diversity of microhabitats including shrubs, grass hummocks and leaf litter (ENV Australia, 2011a). The Port Hedland Regional Fauna Assessment and the previous assessments of the permit considered that the permit area may provide suitable habitat for the woma (*Aspidites ramsayi*), rainbow bee-eater (*Merops ornatus*), Australian bustard (*Ardeotis australis*) and bush stone-curlew (*Burhinus grallarius*) (ENV Australia, 2011a). The woma (Priority 1) is a terrestrial python associated with open myrtaceous heath on sandplains and dune fields dominated by spinifex (*Triodia* spp.) and is known from Cape Peron in the south, across the Pilbara region to Eighty Mile Beach in the north and the Goldfields region to the east, also extending into the central Northern Territory and Queensland (DEC, 2012). The rainbow bee-eater (Migratory species) occurs in a variety of habitat types across mainland Australia including open forests and woodlands, shrublands, inland and coastal sand dunes, mangroves, heathland, and semi-cleared habitats (Commonwealth of Australia, 2021). The Australian bustard and bush stone-curlew are not listed species in Western Australia and have a widespread distribution throughout mainland Australia (Australian Museum, 2020a; Australian Museum, 2020b). Given the woma, rainbow bee-eater, Australian bustard, and

bush stone-curlew area are mobile species with large ranges that do not rely on specialist niche habitats, it is unlikely that these species are reliant on the vegetation present within the permit area. It is also acknowledged that the local area is extensively vegetated (see Appendix C) and that the mapped fauna habitat within the permit area is well-represented in the local area, making up approximately 68 per cent of all fauna habitat in the Port Hedland Regional Fauna Assessment study area (ENV Australia, 2011a). Given the above, the extent of the proposed clearing and the presence of expansive tracts of adjacent vegetation, it is not considered likely that the permit area contains significant habitat for these species.

Noting that it has been ten years since the Port Hedland Regional Fauna Assessment was undertaken, a desktop review of current databases was undertaken for the local area to determine if the extent of conservation significant fauna records had changed and if species in addition to those above should be considered. The desktop assessment identified that a total of 55 conservation significant fauna species have been recorded within the local area, including 12 threatened fauna species, 4 priority fauna species, 37 fauna species protected under international agreement, and two other specially protected fauna species (DBCA, 2007-). None of these records occur within the permit area itself. According to available databases, there have been no new records of these species within the local area since the previous assessment of the permit was undertaken in 2018 and it is likely that impacts to these species were considered during the previous assessments of the permit. With consideration of the site characteristics, relevant data sets and the habitat preferences and distribution of the aforementioned species, five conservation significant fauna species recorded in the local area have the potential to occur within the permit area (see Appendix B).

The grey falcon (*Falco hypoleucos*) (Vulnerable under the BC Act and EPBC Act) occurs in arid and semi-arid inland Australia and is associated with timbered lowland plains such as tussock grassland, open woodland, and particularly *Acacia* shrublands that are crossed by tree-lined watercourses (TSSC, 2020). The grey falcon roosts and nests in the tallest trees along watercourses, particularly river red gum (*Eucalyptus camaldulensis*) and coolibah (*Eucalyptus coolabah*) (TSSC, 2020). The peregrine falcon (*Falco peregrinus*) (Other Specially Protected Fauna) is found Australia-wide and occurs in a range of habitats including woodlands, grasslands and coastal cliffs, usually near watercourses (DAWE, 2020). Preferred roosting and breeding habitat for the peregrine falcon includes granite outcrops and coastal cliffs, but in the absence of these habitats, the species has been known to utilise the nests of other bird species or tree hollows for breeding (Marchant et al., 1993). The *Acacia* shrubland within the permit area is unlikely to provide suitable roosting or breeding habitat for the grey falcon or peregrine falcon, given the lack of granite outcrops or cliffs, riparian vegetation, and tall hollow-bearing trees, but may provide transient foraging habitat for these species as they migrate through the landscape. Given the extent of the proposed clearing, the extent of similar habitat in the local area, and the presence of expansive tracts of adjacent vegetation, it is not considered likely that the permit area contains significant habitat for these species or that the proposed clearing will significantly reduce foraging habitat for the grey falcon or peregrine falcon in the local area.

The brush-tailed mulgara (*Dasycercus blythi*) (Priority 4) and crest-tailed mulgara (*Dasycercus cristicauda*) (Priority 4) are carnivorous marsupials that were previously considered as one synonymous species given their similar morphology and co-occurrence across some regions (TSSC, 2019). The brush-tailed mulgara is associated with *Triodia spinifex* grasslands with medium to dense cover, while the crest-tailed mulgara typically occurs on sand dunes with a sparse cover of vegetation or in sparse herb lands and grasslands bordering salt lakes (TSSC, 2019). Both species utilise extensive burrow systems with multiple entrances on sand dunes, typically at the base of grass clumps or bushes (TSSC, 2019). Noting the proximity to existing records, the lack of current survey information for the permit area, and that the permit area consists of *Triodia* hummock grasslands in varying condition, it is likely that the permit area provides suitable habitat for both the brush-tailed mulgara and crest-tailed mulgara. However, it is acknowledged that the permit area includes disturbed vegetation along existing road and railway infrastructure that will be subject to ongoing use. It is also acknowledged that the permit area is adjacent to an expansive tract of native vegetation and that the mapped fauna habitat within the permit area is well-represented in the local area (ENV Australia, 2011a). Given the extent of the proposed clearing, the ongoing disturbance from use of the existing infrastructure, and the extent of similar habitat types adjacent to the permit area, it is not considered likely that the clearing proposed will result in impacts to locally or regionally significant habitat for the brush-tailed mulgara or crest-tailed mulgara.

Bilbies (*Macrotis lagotis*) are nocturnal marsupials known from the Gibson Desert, Little Sandy Desert, Great Sandy Desert and parts of the Pilbara and southern Kimberley in Western Australia and are associated with open tussock grassland on uplands and hills, *Acacia aneura* (mulga) woodland/shrubland growing on ridges and rises, and hummock grassland in plains and alluvial areas (TSSC, 2016). Bilbies utilise complex burrow systems up to three metres deep for diurnal refuge, rest and shelter (TSSC, 2016). As the permit area includes *Triodia* hummock grassland on sandplains, current survey information has not been obtained for the permit area, and recent records of the species persist in close proximity, the permit area may provide suitable habitat for the bilby. However, the permit area has been subject to historical disturbance and will be subject to ongoing disturbance from use of the existing road and railway infrastructure, making it unlikely to contain complex burrow systems. The habitat within the permit area is also highly represented in the adjacent landscape and the permit area is adjacent to expansive tracts of native vegetation that are likely to comprise similar or better-quality habitat for the bilby (ENV Australia, 2011a). Given the extent of the proposed clearing, the ongoing disturbance from the use of the existing infrastructure, and the extent of similar habitat types adjacent to the permit area, it is not considered likely that the permit area includes significant habitat for the bilby or that the proposed clearing will significantly impact the continuation of the species.

Given the above, the Delegated Officer determined that the assessment of impacts to fauna species remains unchanged from the previous assessments of the permit and that the proposed clearing is unlikely to result in significant impacts to conservation significant fauna species.

Ecological communities

A review of current environmental information indicates that the closest state-listed threatened ecological community (TEC) is an occurrence of the Themeda grasslands on cracking clays (Hamersley Station, Pilbara) (Themeda grasslands) TEC approximately 225 kilometres south-west of the permit area. The closest priority ecological community (TEC) is an occurrence of the Horseflit Land System of the Roebourne Plains PEC approximately 94 kilometres south-west of the permit area. According to available databases, this information is unchanged from the previous assessment of the permit and the findings of the Port Hedland Regional Flora and Vegetation Assessment in 2011, which did not identify vegetation representative of any TEC or PEC within

the permit area (ENV Australia, 2011b). Given the distance and separation from the nearest TEC and PEC, the Delegated Officer determined that the assessment of impacts to conservation significant ecological communities remains unchanged from the previous assessments of the permit and that the proposed amendment to CPS 5049/4 and the clearing proposed under CPS 5049/5 were unlikely to result in significant impacts to these communities.

Conservation areas and significant remnant vegetation

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The extent of native vegetation in the Pilbara Bioregion, Beard vegetation association 647 and the local area have not changed significantly since the previous assessments of the permit and remain consistent with the national objectives and targets for biodiversity conservation in Australia (see Appendix C). The Delegated Officer considers that the permit area does not occur within an extensively cleared landscape and impacts to significant remnant vegetation remain unchanged from the previous assessments of the permit.

The closest conservation areas to the permit area remain Eighty Mile Beach Marine Park approximately 100 kilometres north-east, Mungaroon Range Nature Reserve approximately 112 kilometres south-west, and Millstream Chichester National Park approximately 142 kilometres south-west of the permit area. The Delegated Officer determined that, given the distance and separation from the closest conservation areas and the extensively vegetated local area, the proposed amendment to CPS 5049/4 and the clearing proposed under CPS 5049/5 are unlikely to result in significant impacts to the environmental values of local conservation areas and that the assessment of impacts to conservation areas remains unchanged from the previous assessments of the permit.

Land and water resources

In regard to water resources, it is acknowledged that the permit area is adjacent to a manmade roadside drainage line and occurs within 150 metres of an unnamed non-perennial minor tributary, however no watercourses or wetlands intersect the permit area itself. The closest wetland is the Leslie (Port Hedland) Saltfields System, approximately 10 kilometres north-east of the permit area. The permit area is also mapped within the Pilbara Surface Water Area and the Pilbara Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act). Given the permit area does not intersect any watercourses or wetlands and the nearest natural source of surface water is separated from the permit area by existing road infrastructure, the permit area is not considered likely to contain vegetation growing in, or in association with, an environment associated with a watercourse or to result in impacts to the quality of surface water. Regarding groundwater, groundwater salinity within the permit area is mapped as 1000 to 3000 milligrams per litre total dissolved solids and it is not anticipated that clearing for the maintenance of railway infrastructure or associated works will require groundwater abstraction or result in direct or indirect impacts to groundwater resources. Given the above, the Delegated Officer determined that the proposed amendment to CPS 5049/4 and the clearing proposed under CPS 5049/5 are unlikely to result in significant impacts to the environmental values of riparian vegetation associated with a watercourse or wetland or to surface or groundwater resources, and that the assessment of these impacts remains unchanged from previous assessments of the permit.

In regard to land resources, a desktop assessment identified no new environmental information that would significantly alter the previous assessment of the permit. The mapped soil types within the permit area may be susceptible to erosion along drainage lines but are generally not susceptible to erosion or significant land degradation (Van Vreeswyk et al., 2004). Given the permit area does not include drainage lines or riparian vegetation, it is not considered likely that the proposed clearing will lead to appreciable land degradation. Further, the purpose of the proposed clearing is railway construction, maintenance and associated activities, and it is not considered likely that cleared areas will be exposed to weathering for long periods of time. Mean annual rainfall in the permit area is also low (approximately 400 millimetres) and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased flooding or waterlogging. Given the above, the Delegated Officer determined that the proposed amendment to CPS 5049/4 and the clearing proposed under CPS 5049/5 are unlikely to result in appreciable land degradation or cause, or exacerbate, the incidence or intensity of flooding or waterlogging in the local area, and that the assessment of these impacts remains unchanged from previous assessments of the permit.

Planning instruments and other relevant matters.

The clearing permit amendment application was advertised on the Department of Water and Environmental Regulation's (DWER's) website on 27 August 2021, inviting submissions from the public within a 14 day period. No submissions were received in relation to this application.

The Permit Holder holds Special Lease J998591 (Goldsworthy Rail Lease) over the permit area, as part of the Yarrie Special Leases granted under the *Iron Ore (Goldsworthy-Nimingarra) Agreement Act 1972* (Mount Goldsworthy State Agreement) (WA), which facilitates the Permit Holder's access to and use of the railway line from Goldsworthy Junction to Yarrie. The Permit Holder has advised that they have applied to the Department of Planning, Lands and Heritage (DPLH) for an extension to the duration of Special Lease J998591, but the extension is yet to be finalised. Noting that CPS 5049/4 is due to expire on 31 October 2021 and the proposed clearing is required to facilitate the Permit Holder's responsibilities under the Mount Goldsworthy State Agreement, DWER considers that it is the Permit Holder's responsibility to ensure Special Lease J998591 is extended, prior to undertaking any clearing authorised under this permit. The extension to the period in which clearing is authorised under CPS 5049/5 aligns with the proposed new expiry date of Special Lease J998591.

The Town of Port Hedland (the Town) advised DWER that Lot 47 on Deposited Plan 241374 is partially zoned Railways and partially zoned Environmental Conservation under the Town's Local Planning Scheme No. 7 (LPS7) (Town of Port Hedland, 2021). The Town advised that the Railways zone aims to "set aside land required for passenger rail and rail freight services", while the Environmental Conservation zone aims to "identify areas with biodiversity and conservation value, and to protect those areas from development and subdivision" (Town of Port Hedland, 2021). The Town indicated that the section of Lot 47 zoned Environmental Conservation currently contains no infrastructure and that, according to the Town's records, there is no infrastructure proposed to be built within the proposed amended permit duration (Town of Port Hedland, 2021). The Town advised that clearing of native vegetation within the section of Lot 47 zoned Environmental Conservation is not consistent with the objectives of LPS7 and therefore, it is the Town's preference that clearing is limited to the area zoned Railways only (Town of Port Hedland, 2021). In response to the Town's comments, the Permit Holder advised that the Mount Goldsworthy State Agreement is the instrument that provides authority for the Permit Holder to construct rail infrastructure within Lot 47 (BHP, 2021b). The Permit Holder advised that, while there may be no actual rail constructed within the section of Lot 47 zoned Environmental Conservation, the permitted use of the property under the Mount Goldsworthy State Agreement and Special Lease J998591 provides for the construction, upgrading, realignment, operation, and use of:

- a) a railway, railway bridges (if any), culverts, crossing places, signalling switch and other gear and works; and
- b) the works facilities and services ancillary to all or any of the improvements related to (a) above (BHP, 2021b).

The Permit Holder indicated that, while there is presently no rail within the section of Lot 47 zoned Environmental Conservation, there is a related access track (BHP, 2021b). The Permit Holder advised that the current extent of the clearing permit, including the area zoned Environmental Conservation, must be preserved to enable clearing that may be required to maintain the existing access track and all facilities and services associated with the Goldsworthy Rail infrastructure, in order to maintain compliance with the terms of the Mount Goldsworthy State Agreement and Special Lease J998591 (BHP, 2021b).

A review of the annual reports submitted to DWER was conducted for previous versions of the permit. It was determined following this investigation that a total of 0.04 hectares of clearing has been undertaken to date under the permit (BHP, 2020).

The Permit Holder no longer trades as BHP Billiton Iron Ore Pty Ltd and has undergone a change in name to BHP Iron Ore Pty Ltd. The Permit Holder details have been updated accordingly.

The remaining assessment against planning instruments and other matters is unchanged and can be found in the Decision Reports prepared for Clearing Permits CPS 5409/1, CPS 5049/2, CPS 5049/3 and CPS 5049/4.

Appendix A. Flora analysis table

With consideration for the site information set out above, relevant current datasets (see Appendix D), past biological survey information (ENV Australia, 2011b), and the extent and distribution of existing records, impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)	P3	Y	Y	Y	15.8	32	N
<i>Bulbostylis burbidgeae</i>	P4	Y	Y	Y	8.1	5	N
<i>Eragrostis crateriformis</i>	P3	N	Y	Y	7.4	12	N
<i>Euphorbia clementii</i>	P3	Y	Y	Y	40.5	2	N
<i>Goodenia nuda</i>	P4	Y	Y	Y	8.0	7	N
<i>Heliotropium muticum</i>	P3	Y	Y	Y	0.5	36	N
<i>Rothia indica</i> subsp. <i>australis</i>	P3	Y	Y	Y	3.6	6	N
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	P1	N	Y	Y	1.3	20	N

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

Appendix B. Fauna analysis table

With consideration for the site information set out above, relevant current datasets (see Appendix D), past biological survey information (ENV Australia, 2011a), and the extent and distribution of existing records, impacts to the following conservation significant fauna required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Dasycercus blythi</i> (Brush-tailed mulgara)	P4	Y	Y	0.1	156	N
<i>Dasycercus cristicauda</i> (Crest-tailed mulgara)	P4	Y	Y	6.9	3	N
<i>Falco hypoleucos</i> (Grey falcon)	VU	N	Y	1.9	4	N
<i>Falco peregrinus</i> (Peregrine falcon)	OS	N	Y	6.1	3	N
<i>Macrotis lagotis</i> (Bilby)	VU	Y	Y	0.2	2	N

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, MI: migratory species; OS: Other specially protected species.

Appendix C. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Pilbara	17,808,657.04	17,731,764.88	99.57	1,801,714.98	10.12
Beard Vegetation Complex					
647	195,859.95	191,710.92	97.88	-	-
Beard Vegetation Complex in IBRA bioregion*					
647 (Pilbara)	195,859.95	191,710.92	97.88	-	-
Local area					
50-kilometre radius	541,447.19	525,306.26	97.02	-	-

*Government of Western Australia (2019)

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- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- 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)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)