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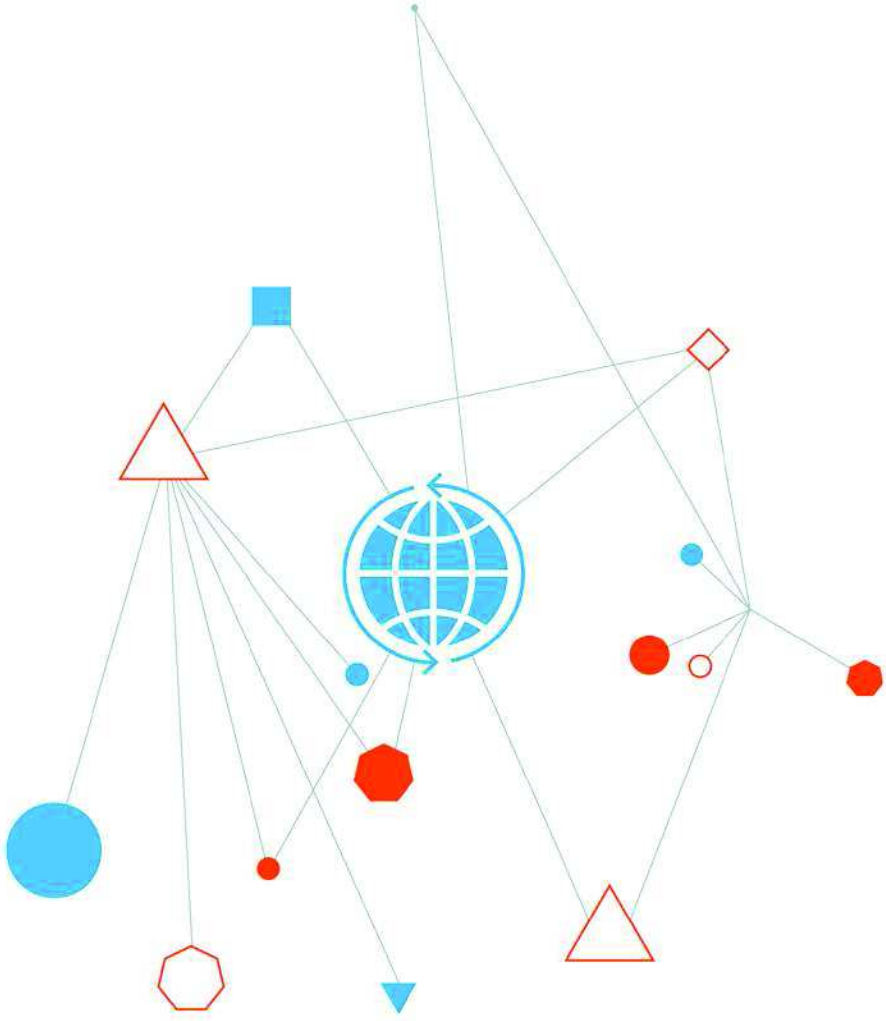
Kimberley Ports Authority

Port of Broome – Lot 617 on Plan 70861

Application to amend clearing permit CPS 3104/5

3 August 2016



When you
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Application to amend clearing permit CPS 3104/5

Prepared for
Kimberley Ports Authority

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1. Introduction

1.1. Background

Kimberley Ports Authority (KPA) manages the Port of Broome, located within the Kimberley region of Western Australia (Figure 1).

The Port of Broome is a deep water port located at the southern tip of Broome peninsula and is the largest deep-water access port serving the Kimberley region. The port supports livestock export, offshore oil and gas exploration supply vessels, pearling, fishing and charter boats, and cruise liners and is the main point to receive fuel and containers for the region.

KPA has previously received approval to clear 24.55 ha of native vegetation for the purpose of commercial development, relocation of a utilities corridor and relocation of a Telstra line (Purpose Permit number CPS 3104/5).

The clearing area was referred to the Commonwealth government under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) in 2012 and the decision was "not a controlled action, if undertaken in a particular manner".

The permitted clearing area on permit CPS 3104/5 is inconsistent with the EPBC referral (EPBC 2012/6364), and is missing a small triangle in the southeast corner. KPA is seeking an amendment to CPS3104/5 to rectify this mistake and make the clearing permit consistent with the area under the EBPC referral.

KPA is also seeking an extension of CPS3104/5 until December 2016, to allow time to clear this area, once the permit has been issued.

An environmentally sensitive area (ESA) has been designated over the Broome peninsula (including Port of Broome), which means that KPA must obtain a native vegetation clearing permit (NVCP) for any clearing activities.

1.2. Purpose

This report supports the Application for an Amendment to a Clearing Permit (Form C4) to allow for an additional 0.07 ha of vegetation to be cleared (Figure 2). This amendment will increase the total area to be cleared under this permit from 24.55 ha to 24.62 ha.

This application discusses the environmental values and impacts associated with this clearing.

For the purpose of this application the following definitions apply:

- 'Application area' refers to the 0.07 ha within which the clearing of native vegetation will occur.
- 'Development area' refers to the larger area which has already been approved.
- 'Study area' indicates a broader area in which the baseline surveys were conducted.
- 'Port Management Area' (PMA) refers to land vested in and managed by KPA.

Source:
Port Management Area from DoP.
Place names, roads, tracks and watercourses from Geoscience Australia GEODATA250K (optimum scale 1: 250,000).
Imagery from Bing and Google Earth (capture date unknown).

coffey A TETRA TECH COMPANY	Date: 29.07.2016 Project: ENAUPERT04158AK File Name: 4158AK_02_F001_GIS	KIMBERLEY PORTS Application to amend CPS 3104/5	Regional location	Figure No: 1

MXD Reference: 4158AK_02_GIS001_v0_2

MXD Reference: 4158AK_02_GIS002_v0_3

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File Name: 4158AK_02_F002_GIS

KIMBERLEY PORTS

Application to amend CPS 3104/5

Application area

Figure No: 2

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2. Project description

2.1. Location and project overview

The application area is located within the PMA on the southern tip of the Broome peninsula, approximately 6.5 km southwest of Broome town centre (see figures 1 and 2).

The proposed use for the application area is the same as for the current clearing permit to include but not limited to clearing for commercial development.

2.2. Land tenure

The application area is vested with KPA subject to the provisions of the *Port Authorities Act 1999*. KPA intends to subdivide and lease both the development area (approved to be cleared under CPS 3104/5) and the application area to commercial tenants.

2.3. Planning context

The application area is zoned 'Port' under the Shire of Broome Town Planning Scheme No. 4 (District Scheme). The objective of the 'Port' zone is to provide for the establishment of special industrial uses and activities that are associated with the port, in addition to associated administration facilities and recreational uses (Department of Planning, 1999).

Future tenants of the area approved to be cleared under CPS 3104/5 and the application area will be required to obtain relevant planning and business licences.

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3. Existing environment

3.1. Regional context

The application area is located in the Kimberley region of WA, approximately 6.5 km southwest of Broome (see Figure 1) and situated within the Pindanland subregion (DAL 02) of the Dampierland Bioregion, under the Interim Biogeographical Regionalisation for Australia (IBRA) classification system (Thackway and Cresswell, 1995).

The Pindanland subregion is characterised by quaternary sandplains, mantle Jurassic and Mesozoic sandstones which supports pindan vegetation (McKenzie, May and McKenna, 2003) consisting of woody grassland with a sparse upper layer of mainly eucalypts over a dense middle stratum of wattle thickets (*Acacia* species) on the plains and hummock grasslands on hills. Fire is a major controlling agent in the ecosystem, with the density of wattles, in particular, relating directly to the fire cycle. *Acacia eriopoda* dominates the middle stratum in the southern half of the peninsula, with *Acacia tumida* dominating the northern half (Woodman, 2008).

3.2. Flora and vegetation

Flora and vegetation assessments have been conducted over the Broome peninsula, including the application area.

A Level 2 flora and vegetation survey was undertaken by Woodman Environmental Consulting (Woodman) in 2007 and 2008, over the PMA. This survey included the application area, and areas of native vegetation to the north of the PMA (i.e. up to Cable Beach Resort and bounded to the east by Roebuck Bay, the golf course and industrial zone). The Level 2 flora and vegetation survey is provided as Appendix A.

A targeted survey for the undescribed *Scleria* species was completed by Woodman throughout the Broome peninsula, from Cable Beach Resort in the north to Entrance Point in the south in 2009. The undescribed *Scleria* species has since been described as in the *Scleria brownii* group by Dr Russell Barrett and is not considered to be of conservation significance (R Barrett pers. comm. 18 April 2013).

3.2.1. Vegetation

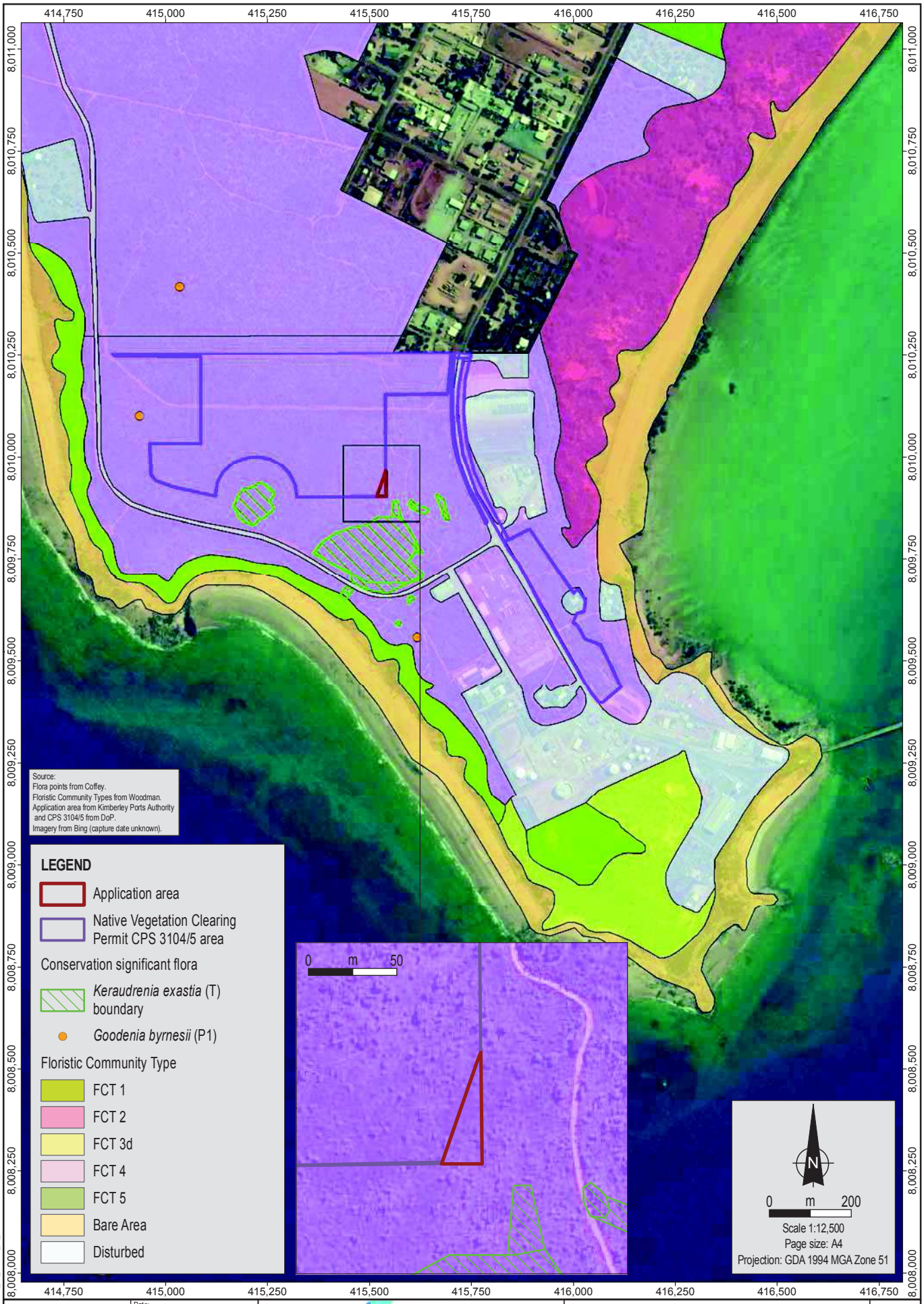
Six floristic community types (FCTs) and two sub groups were mapped and defined by Woodman (2008) across the Broome peninsula. Of these eight FCTs, only one occurs within the application area, as depicted on Figure 3:

- FCT 4: Open woodland of mixed *Corymbia* spp., *Hakea macrocarpa* and *Persoonia falcate* over shrubland dominated by *Acacia colei* var. *colei* and others such as *Ehretia saligna* and *Waltheria indica* over grassland dominated by *Triodia pungens* and *Triodia acutispicula* on orange to red pindan soils on lower to upper slopes.

3.2.2. Conservation significant vegetation

There are two Threatened ecological communities (TECs) and two Priority ecological communities (PECs) within the Broome peninsula:

- TEC: 44 Roebuck Bay mudflats – Species-rich faunal community of the intertidal mudflats of Roebuck Bay.
- TEC: 67 Monsoon Thickets - Monsoon (Vine). Thickets on coastal sand dunes of Dampier Peninsula.



MXD Reference: 4158AK_02_GIS003_v0_4

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Project: ENAUPERT04158AK
File Name: 4158AK_02_F003_GIS

KIMBERLEY PORTS

Application to amend CPS 3104/5

Floristic community type and significant flora and vegetation locations

Figure No: 3

- PEC: 11 Kimberley - *Corymbia paractia* dominated community on dunes (Priority 1).
- PEC: Relict dune system dominated by extensive stands of Mangarr *Sersalisia* (formerly *Pouteria*) *sericea* (Priority 1).

The vegetation in the application area is not considered to be a TEC or a PEC.

3.2.3. Flora

A total of 167 discrete vascular taxa from 113 genera and 52 families were recorded from the Broome peninsula (Woodman, 2008). The most well-represented families were Poaceae (23 taxa, including 3 introduced taxa), Papilionaceae (16 taxa, including 2 introduced taxa), Mimosaceae (9 taxa), Malvaceae (8 taxa, including 1 introduced taxa) and Myrtaceae (7 taxa).

3.2.4. Conservation significant flora

Woodman (2008) recorded four conservation significant flora species within the Broome peninsula. These four conservation significant species do not occur within the application area.

The Threatened (Declared Rare-Extant) flora species, *Keraudrenia exastia*, has been recorded from within the PMA; however, no *Keraudrenia exastia* plants have been recorded within the application area (Woodman, 2008). The known location of *Keraudrenia exastia* individuals are within an area put aside by KPA for the conservation of this species.

3.2.5. Weeds

A total of 14 introduced (weed) species have previously been recorded from the Broome peninsula (Woodman, 2008). Two are listed as Declared Plants under the *Biosecurity and Agricultural Management Act 2007* (BAM Act), *Jatropha gossypiifolia* and *Ziziphus mauritiana*. Declared plants are subject to standard control codes throughout Western Australia.

Jatropha gossypiifolia and *Ziziphus mauritiana* are categorised as a P1 (for the whole State) and a P4 (for the Shire of Broome) declared plant under the BAM Act (Department of Agriculture and Food Western Australia, 2012). *Jatropha gossypiifolia* and *Ziziphus mauritiana* were not recorded from the application area.

3.3. Terrestrial fauna

Bamford Consulting Ecologists (Bamford) undertook a Level 1 fauna survey of the Broome peninsula in late 2009. The survey encompassed the PMA, including the application area and land approximately 1 km to the north, bordered by Riddell Beach to the west and Roebuck Bay to the east (Bamford, 2010). The fauna survey report is attached as Appendix B.

3.3.1. Fauna habitat

Nine fauna habitat types were recorded during the Level 1 fauna survey of the Broome peninsula (Bamford, 2010). One fauna habitat occurs within the application area, Pindan Vegetation – Pindan 1:

- Mixed *Corymbia* spp., *Hakea macrocarpa* and *Persoonia falcata* over Shrubland dominated by *Acacia colei* var. *colei* over grassland dominated by T*riodia pungens* and *Triodia acutispicula* on orange to red pindan soils. This is the major habitat type within the fauna study area.

This habitat is widespread in the region and occurs on pindan soil in the southern half of the fauna study area (Bamford, 2010).

3.3.2. Terrestrial vertebrate fauna

Bamford identified 88 conservation significant fauna species as potentially occurring on the Broome peninsula (fauna study area). The majority of these conservation significant species are migratory birds that utilise the coastal beach flats and only 11 were recorded from, or are considered likely to utilise, the fauna habitat within the peninsula. Six of these species are migratory birds and are unlikely to be reliant on the habitat within the application area. The 11 conservation significant species are detailed in Table 1.

3.4. Surface water

The application area is located in the Cape Leveque Coast drainage basin. The application area is not located in a proclaimed surface water management area (Department of Water, 2008). No watercourses or wetlands are located within the application area.

The nearest wetland of significance is located in Roebuck Bay approximately 6 km northeast of the application area. Roebuck Bay and the Roebuck Plains System are considered to be nationally important wetlands and are associated with Dampier Creek. The tidal mudflats and small creeks of Roebuck Bay, between Dampier Creek in the north to Yardoogarra Creek in south, is recognised as a Ramsar Listed Wetland of International Importance (DSEWPaC, 2011).

3.5. Groundwater

The regional groundwater resources of the Broome area (1:250,000 map sheet SE516) comprise both confined and unconfined aquifers of significant extent. The hydrogeology of the Broome area is documented by Laws (1991). Laws (1991) identified three major and two minor aquifers where groundwater occurs. The most utilised aquifer is the Broome sandstone aquifer, which comprises fine to coarse grained sandstone with minor beds or pebble conglomerate, grey siltstone and claystone. The Broome sandstone is an unconfined aquifer and is separated from the underlying (confined) aquifers, the Alexander formation and the Wallal sandstone, by an aquiclude, the Jarlemai siltstone (Laws, 1991).

Regional groundwater in the Broome area moves under the influence of gravity down the hydraulic gradient west towards the Indian Ocean and south towards Roebuck Bay (WRC, 2001).

Table 1 Conservation significant fauna species that are present or considered likely to occur within the Broome peninsula

Species	Status	Description	Distribution, habitat and notes on occurrence in the fauna study area
Peregrine Falcon (*Falco peregrinus*)	M, S7	A large falcon, weighing between 400 to 1,500 g with a blue-grey back, barred white underparts, and a black head. Their diet consists almost exclusively of medium sized birds.	The Peregrine Falcon occurs in many habitats including rainforests, woodland, farmland, arid areas, coast, alpine areas, and cities and may occur in the subject site. The species has been recorded within the fauna study area on the eastern side of the peninsula near Roebuck Bay. The application area may be a small component of the foraging range of a pair of Peregrine Falcons. However, this species is unlikely to be dependent on habitat within the application area.
Fork-tailed Swift (*Apus pacificus*)	M, S5	The Fork-tailed Swift grows up to 19 cm in length and weighs 35 to 40 g. Adults are coloured blackish brown on the forehead, crown, hind neck, cheeks and ear coverts. Rump is white.	This species breeds in the northeast and mid-east Asia and winters in Australia and southern New Guinea. It is a visitor to most parts of Western Australia, beginning to arrive in the Kimberley in late September, in the Pilbara in November and in the southwest land division in mid-December, and leaving by late April. The Fork-tailed swift is an almost exclusively aerial species, foraging and sleeping on the wing. It rarely comes to earth, usually only for breeding. It is common in the Kimberley, uncommon to moderately common near northwest, west and southeast coasts and rare to scarce elsewhere. Usually flocks (up to 2000) occur when changed weather conditions (i.e., storms and cyclones) occur. This species was recorded from within the fauna study area by Bamford (2010).
Rainbow Bee-eater (*Merops ornatus*)	M, S5	The Rainbow Bee-eater is a small bird weighing 20 to 25 g and growing up to 24 cm in length. Adults have a pale green forehead extending back as a line over the eye. The crown and nape are orange-brown or cinnamon rufous with the crown sometimes washed with green. A black stripe runs from the bill through eye to ear coverts bordered below with pale blue. Their lower back is pale blue and becomes darker on tail coverts. The tail is black.	The Rainbow Bee-eater is found across the better-watered parts of Western Australia. It prefers lightly wooded habitats, preferably on sandy soils near water. Rainbow Bee-eaters are scarce to very common across their range depending on suitable habitat conditions. Rainbow Bee-eaters have been observed on multiple occasions in other surveys in the region. This species was recorded from within the fauna study area by Bamford (2010).

Species	Status	Description	Distribution, habitat and notes on occurrence in the fauna study area
Barn Swallow (*Hirundo rustica*)	M, S5	The Barn Swallow weighs up to 17 g and grows 135 to 156 mm in length. They have a dark chestnut or rufous chestnut forehead. The rest of the upper parts including ear coverts, scapulars and upper wing coverts are black glossed with blue. Their chin and throat is rufous chestnut and they have a long and deeply forked tail.	The Barn Swallow forages in open country, cultivated land and urban areas. It has been recorded in a number of surveys in the region. This species was recorded from within the fauna study area by Bamford (2010).
Airlie Island Ctenotus (*Ctenotus angusticeps*)	V, S3	Dark olive, grey skink with dark and pale mottling and an indication of a dark vertebral stripe. Flanks are marked with broken dark-edged ocelli with pale centres that align into broken stripes.	This species occurs on Airlie Island, north-east of Onslow, the midland adjacent to Airlie Island and has been recorded south of Broome at Roebuck Bay. Habitat suitable for this species includes low *Acacia* shrubland with coastal spinifex and limestone formations. This species is unlikely to occur in the application area.
Lerista separanda (skink)	P2	Pale pinkish brown, with a prominent dark upper lateral stripe and reddish pink flush on the tail and hind limbs. Four well-developed limbs all have four digits.	*Lerista separanda* has a restricted range within the semi-arid and arid southwest Kimberley. This species has been previously recorded from the fauna study area (on the Broome peninsula) within leaf litter and under spinifex. The species has also been recorded at Kimbolton, Point Coulomb and Nita Downs. It is suggested this species occurs in sandy areas along the south-west Kimberly coast. This species is likely to occur across the fauna study area within the Pindan vegetation.
Simoselaps minimus (snake)	P2	Cream with dark reddish brown edge to each scale, forming prominent reticulum. Broad black band extends across head, widely separated from a narrower black band across neck.	*Simoselaps minimus* is restricted in range to the Dampier Peninsula and has been recorded from the fauna study area, within soil under a Spinifex clump. This species occurs in coastal dunes and sandy junction between dunes and adjacent Acacia shrublands. This species is unlikely to occur within the application area.
Oriental Cuckoo (*Cuculus saturatus*)	M, S5	This species is between 28 and 33 cm with a bill that is partially yellow, a yellow eye, eye-ring and feet. Underparts are whitish and wavily barred black.	The Oriental Cuckoo inhabits rainforest margins, monsoon forest, vine thicket, Paperbark swamps and mangroves. This species has been recorded from the Broome Bird Observatory, but is probably only an occasional visitor in small numbers to the region.

Species	Status	Description	Distribution, habitat and notes on occurrence in the fauna study area
Grey Falcon (*Falco hypoleucos*)	S3	Underparts are greyish white, with darker wingtips. Flight feathers and tail are indistinctly barred. Soars with tings slightly upswept.	The Grey Falcon is nomadic, inhabiting lightly timbered riverine plains. It appears to have a distribution centred around ephemeral or permanent drainage lines, utilising old nests of other species situated in the tallest trees along the river systems. The Grey Falcon has been recorded at the Broome Bird Observatory, 15 km east of the fauna study area. This species is unlikely to rely on the Pindan in the vicinity of the application area, however may occur as a rare visitor.
White throated Needletail (*Hirundapus caudacutus*)	M, S5	Large, long-winged, powerful swift, one of the world's birds. Forehead, throat and under tail-coverts white. Short dark tail has small, extended needle-like shafts. Brown on mid-back that fades to whitish bulls-eye in the centre.	Regular summer migrant to Australia from mid-October and departs by mid-April. More common in eastern Australia. Occurs in a range of habitats including forests, woodlands, farmlands, plains, lakes and coasts. Recorded in the greater region so may occur as a visitor.
Bilby (*Macrotis lagotis*)	V, S3	The Bilby is a long-tailed, long-eared, burrowing desert bandicoot. Their fur is long and silky; blue-grey tinged with rufous brown. The tail is uniquely long, tricoloured – basal third similar to back, mid third black, terminal third white – and crested. Adult Bilbies weigh between 800 to 2400 g and are 30 to 55 cm in head-body length.	The Bilby inhabits the semi-arid areas of Western Australia where it is most commonly found on sandy soils in acacia shrubland and hummock grassland. The Bilby is nocturnal and eats arthropods, tubers and small fungi. They have been recorded in the Port Hedland area. There are some recent records of the species near Broome. However it is unlikely the Bilby will rely on fauna habitat located within the application area.

Note: M = Migratory and V= Vulnerable listed fauna under the Commonwealth EPBC Act. S = Schedule listed fauna listed under WC Act and P = Priority listed fauna by DPAW.

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4. Environmental management

KPA operates under an Environmental Management Plan (EMP) that applies to:

- All activities conducted by KPA.
- Activities undertaken by all new tenants within the PMA.
- Operations conducted by contractors who operate within the PMA.

KPA currently operates an Environmental Management System (EMS) aligned to ISO 14001:2004. The EMS incorporates policies, planning, procedures, practices, responsibilities, training, monitoring, review and audits that define the framework for managing the impact of KPA's activities, products and services on the environment.

KPA has prepared Tenant Environmental Management Requirements (TEMR) documents to guide tenant activities in the PMA. The scope of the TEMRs includes general environmental performance and documents dedicated to more specific environmental aspects that have the potential to impact the environment significantly. The TEMRs include:

- General Environmental Requirements.
- Flora and Vegetation.
- Fauna and Pests.
- Water Management.
- Heritage.
- Land Management.
- Waste Management.
- Chemical Storage and Handling.
- Atmospheric Emissions.

The clearing of native vegetation and development of the application area will be undertaken in accordance with the requirements of the EMP, EMS, the TEMRs and KPA's legislative obligations.

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5. Assessment against the ten clearing principles

Ten clearing principles have been developed under Section 5 of the *Environmental Protection Act 1986* (EP Act) to determine the impact of clearing native vegetation. Table 2 provides an assessment of the proposed clearing (**maximum of 0.07 ha)** against each of the ten clearing principles.

Table 2 Assessment against the ten clearing principles

Principle	Assessment	Is the proposed clearing at variance?
(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.	A total of 167 vascular plant taxa, from 113 genera and 53 families, were recorded from the Broome peninsula during surveys conducted in August 2007 and April 2008 (Woodman, 2008). The number of native vascular plant taxa recorded from the Broome peninsula (from Cable Beach Resort in the north to the southern tip of the peninsula) is low to moderate and is not as high as other flora surveys undertaken on Pindan vegetation in close to the study area. For example, 308 vascular plant taxa were recorded from James Price Point, which is considered to represent moderate to high diversity (Biota, 2009). Woodman (2008) recorded four conservation significant flora species from within the study area including the threatened *Keraudrenia exastia*. No conservation significant species were recorded from within the application area. The known location of *Keraudrenia exastia* individuals are within an area put aside by KPA for the conservation of this species. Two TECs and two PECs are known to occur within PMA, but are not located within the application area. One FCT (FCT 4) is present within the application area (pindan 1) and is not representative of a listed TEC or PEC, and is not rare or restricted to the application area (see Figure 3). The clearing will not result in any loss to TECs, PECs or Threatened flora species, as none occur within the application area.	The proposed clearing is NOT considered to be at variance with this 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 indigenous to Western Australia.	Eleven conservation significant fauna species were recorded or are considered likely to utilise fauna habitat present on the Broome peninsula (see Table 1). Six of these species are migratory birds and unlikely to use the fauna habitat within the application area. The fauna habitat occurring within the application area is not considered to represent important foraging, roosting or breeding habitat for the other six conservation significant fauna species. Impacts	The proposed clearing is NOT considered to be at variance with this principle.

Principle	Assessment	Is the proposed clearing at variance?
	to this habitat and fauna species that may use it is not significant in a local and regional context due the small area being cleared (Bamford, 2010).	
(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of rare flora.	No threatened flora listed under *Wildlife Conservation Act 1950* (WC Act) or threatened flora under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) has been recorded within the application area (Woodman, 2008). *Keraudrenia exastia* is known to exist in the area set aside by KPA for the conservation of the species, adjacent to the application area. The clearing of native vegetation within the application area will be undertaken in accordance with KPA's EMP and EMS to ensure there is no direct or indirect impacts to the known locations of *Keraudrenia exastia*.	The proposed clearing is NOT considered to be at variance with this 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.	Two TECs, Monsoon Thickets and Roebuck Bay Mudflats, are known to occur within the PMA, however, they do not occur within or adjacent to the application area (Woodman, 2008). No state or federally listed TECs are known to occur within or adjacent to the application area (Woodman, 2008). The one FCT mapped within the application area is not representative of any TECs.	The proposed clearing is NOT considered to be at variance with this 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.	The application area is considered to represent vegetation system association 750.1 (Pindan shrublands: *Acacia tumida* shrubland with Grey Box and Cabbage Gum medium woodland over Ribbon Grass and Curly Spinifex). The application area is not considered to be a remnant of this vegetation association as 99.5% of the pre-European extent of vegetation remains within the Shire of Broome (Department of Parks and Wildlife, 2015).	The proposed clearing is NOT considered to be at variance with this 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.	There are no watercourses or wetlands within or close to the application area. Roebuck Bay, and Roebuck Plains System are nationally important wetlands, and are located approximately 6 km northeast of the application area and will not be impacted.	The proposed clearing is NOT considered to be at variance with this principle.
(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	KPA is committed to clearing no more 0.07 ha of vegetation within the application area. The application area occurs within an area that can receive heavy rainfall and cyclonic activities with potential for excessive erosion and degradation of the land. Clearing is expected to coincide with the dry season to reduce the likelihood of erosion and land degradation from these extreme rainfall events. Potential impacts on the land from clearing will be managed in accordance with the EMP.	The proposed clearing is NOT considered to be at variance with this principle.

Principle	Assessment	Is the proposed clearing at variance?
(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.	No conservation reserves are located within the vicinity of the application area. Roebuck Bay and Roebuck Plains System is 6 km northeast of the application area and will not be impacted by clearing.	The proposed clearing is NOT considered to be at variance with this 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.	The application area is located in the Cape Leveque Coast drainage basin. The area is not located in a proclaimed surface water management area (Department of Water, 2008). No watercourses or wetlands are located within the application area. No deterioration in the quality of surface or underground water is expected given the small area of proposed clearing (0.07 ha). Potential impacts on water quality from clearing will be managed in accordance with the EMP.	The proposed clearing is NOT considered to be at variance with this principle.
(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.	The clearing of native vegetation is not expected to cause or exacerbate the incidence of flooding on the Broome peninsula. The soils located on the peninsula are Pindan, silty sands of fine to very fine grain, characterised by high infiltration and percolation of surface water.	The proposed clearing is NOT considered to be at variance with this principle.

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