Senate Standing Committee on Environment and Communications
Legislation Committee
Answers to questions on notice
Environment portfolio

Question No: 50

Hearing: Additional Estimates

Outcome: Outcome 1

Programme: Environment Standards Division (ESD)

Topic: LandCorp Industrial subdivision, Broome

Hansard Page: 132-133

Question Date: 08 February 2016

Question Type: Spoken

Senator Siewert asked:

Senator SIEWERT: I am just following up the issue I raised this morning in the general question area. I understand that last year the department made a visit to Broome to look at some clearing by LandCorp?
Mr Gaddes: Just bear with me for a moment while I find the notes on this one.
Senator SIEWERT: It is not me that needs to bear with you; it is the chair. Otherwise I will get in trouble!
Mr Gaddes: Is this the LandCorp industrial subdivision north of Broome?
Senator SIEWERT: Yes, that you visited in April 2015.
Mr Gaddes: I have notes here from my officers that we visited on 17 June, but we may have visited before that. We visited on 17 June and took an expert with us under a monitoring warrant. The expert advice provided to the department indicated that the ecological attributes of the central to eastern portions of the site constituted greater bilby habitat, and that had some conservation significance. The western portion of the site, which was the one that was subject to the clearing, was not considered to have the same landform characteristics, and they would not support the greater bilby. So, based upon that, the department formed the view that there was not going to be a significant impact caused by that action.
Senator SIEWERT: That was the recommendation you provided?
Mr Gaddes: That was the conclusion to our inquiries, and we then wrote to the proponents and said that we were not going to take any further action because we did not think the act applied to that activity.
Senator SIEWERT: Is it possible to provide a copy of the report and a copy of that letter that you just mentioned?
Mr Gaddes: I could have a look at that. To close the case, I suppose we probably could provide that.
Senator SIEWERT: Okay, that would be much appreciated. That is me done, Chair.
CHAIR: Thank you very much.
Dr de Brouwer: Take that on notice.
Mr Gaddes: I will take that on notice, sorry. I do not have it before me, so sorry; good pick up.

Answer:

Copies of the report and letter are attached. The names and contact details of junior officers have been redacted, consistent with the Department's approach when releasing such documents under Freedom of Information requests.

Targeted Greater Bilby assessment of the Landcorp WA industrial development site near Crab Creek Road, Broome

Dr Richard Southgate
Envisage Environmental Services
30 June 2015

Summary
This report presents the findings from a brief targeted survey to identify whether or not Greater Bilby habitat was present on the site and if so, the current extent and quality of the habitat and to provide expert advice as to the presence, and importance, of any population of the Greater Bilby present at, or making nomadic use of, the site.

The survey of the site supported the findings of an independent survey conducted in May 2015 by GHD that sign of Greater Bilby activity was present within the 400 ha proposed industrial development site beside the Crab Creek Road, 15 km east of Broome. The sign detected included recent diggings and burrows and old diggings and burrows. The habitat at the site was pindan shrubland and woodland dominated by *Acacia* species.

A review of literature revealed that 'quite a few' reliable sightings of the Greater Bilby were made along Crab Creek Road in the 1990s. Along with the recently recorded sign, it indicates that habitat at the site was favourable for the Greater Bilby and it was periodically occupied. The periodic use of an area is consistent with the itinerant nature of the bilby in habitat on sand plains.

Proposed development at the site will result in the loss of this habitat, potentially act as a barrier to movement and expose the species to greater risk of road collision. Other indirect threats associated with the project and operations are likely to have negative impacts unless adequately managed.

Mitigation and management measures are not considered in this report.

Introduction

Landcorp WA had commenced clearing a portion of a proposed 400 hectare industrial development site (the Industrial Precinct) to the east of Broome near Crab Creek Road. The clearing of 120 ha of the industrial development site had commenced at the time of the survey. The Precinct is positioned approximately eight kilometers northeast of Broome on the Great Northern Highway near to the entrance of Crab Creek Road and south of the Cape Leveque Road.

The Greater Bilby is a listed as vulnerable to extinction under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) and is also listed as Rare [Threatened] (rare or likely to become extinct) under the *Wildlife Conservation (Specially Protected Fauna) Notice 2010 (2)* in Western Australia. It is considered threatened or endangered in the Northern Territory, South Australia and Queensland and extinct in NSW.

Compliance officers, along with Richard Southgate and Craig Doudle, entered the Industrial Precinct to determine whether the Greater Bilby inhabited the site and if so, to what extent and to establish baseline knowledge on the current state and quality of the habitat. This occurred on the 17 June 2015. Landcorp representatives and the consultant ecologist (Glen Gaikhorst) from GHD accompanied the above people while on site.

This report presents results of the survey conducted on the 17 June 2015 and considers the threats posed by development at the Industrial Precinct to the Greater Bilby (henceforth referred to as 'the bilby') population within the region.

Methods

Study area

The proposed Industrial Precinct falls within the Pindanland sub-bioregion of the Dampierland Bioregion (IBRA7 2012) and includes vegetation classified as Pindan shrubland and Pindan woodland with both vegetation types dominated by *Acacia* species. Pindan woodland has an emergent tree layer, of *Eucalyptus* and *Grevillea* species, *Gyrocarpus americanus*, *Erythrophloeum chlorostachys*, *Bauhinia cunninghamii, Adansonia gregorii, Buchanania obovata* and *Terminalia canescens* over sand and loam soils (GHD 2015a).

Survey effort

Eleven plots were searched for bilby sign within the precinct or along the boundary (**Table 1**). The plots were spaced about 500 m apart. Each plot was 2 ha in area and included 100m of access track where conditions for detecting tracks were good. Each plot was searched for about 25 minutes.

Sign to validate the presence of the bilby can include tracks, scats and diggings (Moseby *et al*. 2009). Burrows and diggings in isolation are not suitable to validate sign unless they have certain characteristics or occur in combination with

other sign. Other species can produce similar sign to that made by the bilby. Bilby scats are very characteristic. Exposed scats can persist for weeks in absence of rain and for longer if covered by sand at a digging.

Results

Bilby sign

There was strong evidence that bilbies had been present within parts of the 400 ha industrial development site in the three weeks prior to sampling. Photographic evidence of burrows and digging are provided in **Appendix 1**.

Sign consistent with that produced by the bilby was found at three plots (**Table 2**). At plot BB01, a scat consistent with those produced by the bilby was found beside a digging. This plot also contained burrows and other diggings consistent with bilby activity. The diggings found included some that were deep and conical typical of those able to be produced by bilbies. Other diggings were shallow scrapes that could be produced by other species such as wallaby or echidna. However, many of these shallow scrapes were likely to have been produced by bilbies while feeding on seed concentrated at ant nests. Senescent *Yakirra australiense* was evident along the track where the diggings were most evident. No diggings were found at the base of shrubs.

A number of burrows were found and were a consistent size and shape of those made by a medium-sized bilby. The distribution and spacing between burrows was also consistent with those produced in an area occupied by bilbies. None of the burrows had recent sign of occupation. Some of the burrows had been inactive for a several weeks with cobwebs and debris in the entrance.

No imprints were found consistent with those produced by the bilby along the tracks used to access the survey sites. None of the burrows had evidence of imprint activity on the sand apron. The ability to detect imprints of small and medium-sized animals away from the access tracks was very limited because of the high vegetative cover.

At sites bb08 and bb09, there was no burrows detected but there were similar diggings to those found on the primary plot. All sign was located on the eastern edge of the Industrial precinct (**Fig. 1**).

Table 1 Location details of plots visited within and the vicinity of the Industrial precinct

plot no.	date	start	dd_lat	dd_long	zone	east	north	notes 1
bb01	17jun15	11:31	-17.8940	122.2851	51K	424269	8021401	centre of site, old crab cr rd
bb02	17jun15	12:15	-17.8967	122.2671	51K	422366	8021086	sw cnr of site
bb03	17jun15	12:47	-17.8922	122.2671	51K	422361	8021593	mid w edge of site
bb04	17jun15	13:14	-17.8983	122.2712	51K	422805	8020920	southern west edge of site
bb05	17jun15	13:59	-17.8981	122.2763	51K	423344	8020937	southern mid edge of site
bb06	17jun15	14:29	-17.8928	122.2758	51K	423290	8021525	centre of site: new fenceline
bb07	17jun15	14:55	-17.8981	122.2819	51K	423929	8020941	southern east edge of site
bb08	17jun15	15:40	-17.8972	122.2898	51K	424769	8021044	southern cnr of site
bb09	17jun15	16:16	-17.8909	122.2932	51K	425133	8021744	down new rd east edge
bb10	17jun15	17:18	-17.8852	122.2911	51K	424905	8022368	along main hwy
bb11	17jun15	17:38	-17.8871	122.2798	51K	423709	8022153	along main hwy

Table 2 Animal sign recorded at plots in the vicinity of the Industrial Precinct.

plot no.	Bilby burrow	Bilby scat	Bilby digs	Bilby tracks	Dog/ dingo	Fox	Cat	Cattle	Agile wallaby	Corvid	Pigeon/dove	Small bird
bb01	1	1	1	0	1	0	1	0	1	0	1	1
bb02	0	0	0	0	1	0	1	0	1	0	1	1
bb03	possible, old	0	0	0	1	0	0	0	1	0	1	1
bb04	0	0	0	0	0	0	0	0	1	0	1	1
bb05	0	0	possible	0	0	0	1	0	1	0	1	1
bb06	0	0	0	0	0	0	0	0	1	0	1	1
bb07	0	0	0	0	0	0	0	0	1	0	1	1
bb08	0	0	1	0	1	0	0	0	1	0	1	1
bb09	0	0	1	0	1	0	1	0	1	1	1	1
bb10	0	0	unlikely	0	1	0	1	0	1	0	1	1
bb11	0	0	0	0	1	0	1	0	1	1	1	1

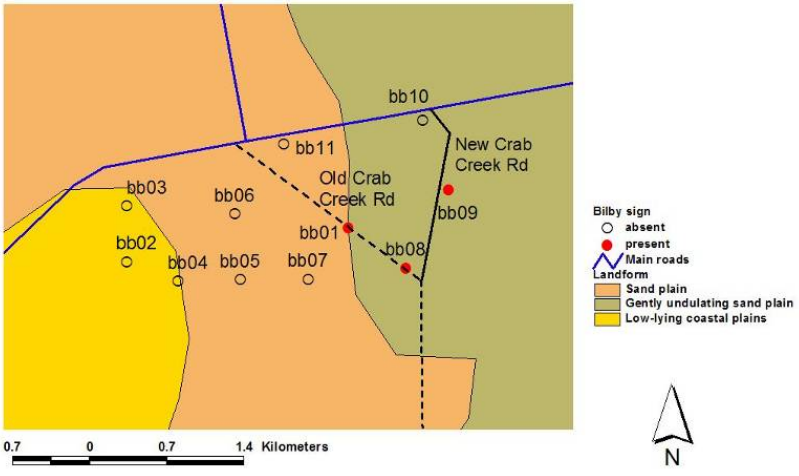

Fig. 1 Location of plots surveyed in the Industrial Precinct, landforms within the region and bilby sign detected.

The habitat at the plots where the bilby sign was detected was Pindan shrubland. *Bauhinia* and eucalypts were more evident at a number of the plots on the western part of the Industrial precinct.

The area with the Industrial Precinct examined had been burnt prior to 2008. The area to the north and east of the Industrial Precinct (and the Great Northern Hwy) had been burnt in 2012. Cattle were reported to have been gazed on land south of the Industrial Precinct but no fresh sign was evident during the survey.

Sign of other species
Wild dog/dingo and cat sign was recorded at eight and six plots, respectively. Considering the extent of the Industrial precinct, this sign could have been produced by two or three individuals of each species. No red fox sign was detected. Agile wallaby sign was very common and recorded at all the plots sampled. There was no fresh cattle sign detected but bones of a long dead animal was found at one plot. The imprints of pigeon and small bird were detected at all plots. This is indicative that conditions in part of the each plot (primarily the access track) were suitable to detect the prints of small animals and hence suitable to detect the prints of medium-size and large animals as well.

Discussion

Presence of bilby on the site
The evidence of bilby sign found at the sample plots within the Industrial precinct concur with the findings provided by GHD to Landcorp (GHD 2015b). During the current survey (17 June), no fresh sign (less than two days old) was detected. Fresh sign (burrow activity, diggings and track imprints) was recorded during the survey by GHD on 26-28 May 2015. It was considered that some digging activity had been produced shortly after rain had fallen in the period 20-25 April. The amount and spatial extent of the burrow and digging activity was consistent with an individual or possibly two animals using an area for at least a number of weeks.

Presence of the bilby in the region
There are over 100 historical records of Greater Bilby from the Pindanland sub-bioregion (which includes the Dampier Peninsula and lands to the south) dating from 1995 onwards. These records are held in the Threatened Species Database that is managed by the Western Australia Department of Parks and Wildlife (DPaW) and may be accessed using:
http://NatureMap.dec.wa.gov.au/default.aspx.

In correspondence to SKM (2012), Tim Willings reported that in the 1990s ‘quite a few’ reliable sightings (number not specified) of Bilby were made along Crab Creek Road, approximately 15 km east of Broome. These sightings were reported to CALM by Chris Hassell from the Broome Bird Observatory. These

and other records are referred to in the GHD (2013) report. Apparently no sightings of Bilby have been reported from this area in the 10 years prior to 2011 (SKM 2012).

The Bilby has been reported from a range of locations on the Dampier Peninsula including along the Great Northern Highway, between Broome and Derby in the late 1990s and from Udialla Station 60 km south of Derby in 2001. They were recorded near the main entrance to Roebuck Plains Station, near Bam Hill 35 km southeast of Broome in 2003-4, from Gourdon Bay south of Broome in 2008 and from locations near James Price Point in 2011-12 and further north along the Cape Leveque Rd in 2013 where multiple records including a camera trap image and active burrows were found (GHD 2013).

The species is evidently scattered in low density throughout the region and quite mobile presumably moving in response to changing habitat quality and food availability. The detectability of the species is also low due to its cryptic nature and behaviour, which makes monitoring difficult.

Habitat extent and quality
Most of the Pindanland sub-bioregion is sand plain and would be suitable for the bilby to construct burrows. It is evident that this species can make use of both pindan shrubland and woodland to extract adequate food resources. Hence, most of the Dampier Peninsula and surrounds could be used by the bilby. However, sand plain is less productive habitat for the bilby compared to paleodrainage lines, residual land forms and brown clay soils where populations can be detected more consistently (Southgate *et al*. 2007). These landforms are largely absent in the Pindanland sub-bioregion. Sand plain habitat can become ephemerally productive for the bilby when suitable rainfall and fire conditions occur. These habitat features probably explain the patchiness of occurrence and overall low density of the bilby within the Pindanland sub-bioregion. Evidence of successful breeding events (documented in SKM 2012, Doudle pers comm., 2015) indicate that the Pindan shrubland and woodland can at times become a population source and should not be considered or discounted as a habitat sink (where deaths exceed births).

There is a reasonably strong positive association between Bilby prevalence and dietary food plants and fire. A number of the important food plants used by the Bilby are promoted by disturbance and fire. Hot summer fires followed by rain provide the most favourable conditions for production of a number of important seed producing grasses, particularly *Yakirra australiense* (Southgate and Carthew 2006). Physical disturbance like clearing a track or culvert can also create conditions that promote growth *Yakirra*. Large wildfires can become a threat to bilbies because it may leave them exposed to predators when cover is low shortly after a fire. Problems also occur when vegetation recovers and becomes homogeneously dense over large tracts, preventing Bilbies from foraging effectively and moving through the landscape. A patchwork of habitat

with different fire ages provides the most effective measure to make habitat suitable for the bilby on sand plains (Southgate and Carthew 2007).

The habitat where the bilby activity was found on the Industrial Precinct had not been burnt for at least seven years. Habitat had been burnt in the last two or three years to the north of the Industrial precinct. It is likely the bilby activity detected in the Industrial Precinct was made by an individual or individuals that moved from the burnt area along the disturbed verges of the Crab Creek Rd. *Yakirra* was clearly evident on the disturbed areas adjacent to Crab Creek Rd and many of the bilby diggings were associated these disturbed areas.

Threats within the region

In addition to the variables described above that act to shape the occurrence of the bilby within a region, there are a number of detrimental processes that may interact to further modify habitat suitability. These threats have been identified with reference to the National Recovery Plan for the Greater Bilby Macrotis lagotis and likely consequences from the development of the Industrial Precinct (**Table 3**).

Table 3 Threats identified in the Greater Bilby Recovery Plan (Pavey 2006) and likely relevance to the development of the Industrial Precinct

Threat	**Relevance to project**	
Predation	Possible	Development of the Precinct may result in greater abundance or persistence of predator species locally
Competition with introduced herbivores	Possible	Agistment of cattle in uncleared part of the Precinct would likely result in degradation of habitat for the bilby
Habitat degradation by introduced herbivores	Possible	Dingo/wild dog control carried out on pastoral properties or infrastructure developments or provision of water points may increase the abundance of foxes and cats. Control of dingoes or wild dogs may increase the abundance of foxes and cats locally
Habitat degradation resulting from unsuitable fire regimes	Possible	The Precinct will most likely be protected from fire. Fire management will likely occur around the Precinct to facilitate protection. This will most probably alter the existing fire regime in the local area.
Drought	No	Project very unlikely to alter weather, resulting in reduced rainfall
Habitat destruction and degradation resulting from mining and other development	Yes	Construction will result in the loss of habitat, cause habitat fragmentation and provide a barrier to movement
Road mortality	Yes	Construction of the Industrial Precinct will result in increased vehicle movement and operations associated with the Precinct will result in increased vehicle movement. Both may result in the greater potential for collisions by vehicles and increased bilby mortality

Both the red fox and the European rabbit are considered threats and negatively associate with the reduced current distribution of the bilby. Neither species was evident at the site. However, fox distribution extends further north along the coast than it does inland and foxes have been reported in the Broome area. Although the Dampier Peninsula is not mapped within the European red fox's distribution area (DEWHA 2008), the species has been observed on occasions by locals at Gourdon Bay approximately 50 km south of Broome (ENV 2008). Records of foxes entering the Broome area around 2009 were also reported by Malcolm Douglas (T. Willing, personal communication, 2011 contained in SKM (2012) Browse Bilby Review). Any increase in fox occupancy within the region would be detrimental to the bilby population.

Wild dog/dingoes and feral cats were clearly evident at the site. Both these species are known to predate on the bilby but the existing level of predation pressure in this bioregion is evidently tolerable to allow persistence of the species. Conditions that elevate predator abundance or persistence are likely to result in intolerable predation pressure and local extinction of bilby populations. Activities such as pastoralism, mining and other infrastructure development may facilitate the movement of predators (e.g. access track networks), provide an access to water (eg. bores) and scavenging opportunities and shelter (e.g. at rubbish dumps) and thus increase predator abundance and persistence (Pavey 2006).

Pastoralism is also considered a threat and bilby populations are only found in areas where cattle grazing pressure is absent or light (Southgate 1990). High stocking densities of large introduced herbivores can result in habitat degradation via erosion, compaction and devegetation, which decreases bilby access to food resources and burrow sites. Pastoralism may also negatively affect habitat suitability for the bilby by a number of other means. Dingo/wild dog control carried out on pastoral properties or infrastructure developments may increase the abundance of foxes and cats (Pavey 2006). Agistment of cattle on the uncleared part of the Precinct would likely result in degradation of habitat for the bilby.

Pastoralism and infrastructure development may also alter the fire regime (i.e. timing, extent and frequency of fires) within a region. This may degrade or enhance habitat suitability for the bilby depending upon how the fire regime has been altered and whether patchiness of fire ages has been increased.

Habitat destruction and degradation from mining and other development (including development sites and linear infrastructure such as roads) can obviously result in habitat loss and pose a threat to the bilby within its range. Other indirect threats resulting from infrastructure development include mortality due to road collision (road kill), fragmentation of habitat and barrier effects preventing movement between patches of habitat.

The importance of the population and consequences of current and proposed development

The bioregion has important conservation significance for medium-sized animals like the bilby because it is free of rabbits and mostly free of foxes.

The Crab Creek locality and the Industrial Precinct is significant because bilby activity has been recorded there in previous years and during recent times. The periodic use of the area is consistent with the itinerant nature of the bilby in habitat on sand plains.

While the proposed industrial precinct development area constitutes only a small part of the habitat likely to be used by the bilby on the Dampier Peninsula, the cleared vegetation in the Industrial Precinct and further clearance will reduce the extent of habitat suitable for the bilby, potentially act as a barrier to movement and expose the species to greater risk of road collision. Other indirect threats associated with the project and operations are likely to have negative impacts unless adequately managed. These include the alteration of fire regimes and the provision of conditions that may increase predator occupancy and pressure.

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Better knowledge and management of the bilby across the Dampier Peninsula and the Pindanland sub-bioregion requires a clearer:

- determination of the Bilby population distribution, detectability and occupancy
- understanding of the impact of predator species on population viability
- understanding of their relationship to habitat and manageable fire regimes

The loss of habitat and the detrimental indirect effect of development of the Industrial Precinct may be adequately offset if effective, low-intensity management measures can be implemented to enhance the bilby population within the Pindanland sub-bioregion.

References

ENV Australia 2008. Perpendicular Head-North Head, Packer Island, Coulomb-Quondong and Gourdon Bay Flora Assessment. Unpublished report RP006, prepared for Department of Industry and Resources, October 2008.

GHD 2012. Report for Broome to Cape Leveque Road (Stage 3 SLK 12.7 – 102.6) Environmental Impact Assessment and Environmental Management Plan.

GHD 2013. Cape Leveque Road Upgrade: Targeted Greater Bilby Assessment Report for Main Roads Western Australia

GHD 2015a. Corre_150508_att 2015 GHD Significance Assessment Bilby at site

GHD 2015b. 150329_Letter Report_Crab Creek Rd Survey_Final Rev1

IBRA7 2012. *Interim biogeographic regionisation of Australia*. Department of Sustainability, Environment, Water, Population and Communities. Commonwealth of Australia

Moseby, K. E, Nano, T. and Southgate, R. 2009. *Tales in the sand; a guide to identifying Australian arid zone fauna using spoor and other sign.* Ecological horizons, South Australia.

Pavey, C. 2006. National Recovery Plan for the Greater Bilby *Macrotis lagotis*. Northern Territory Department of Natural Resources, Environment and the Arts.

SKM 2012. Browse Bilby Review, Consolidated Information Relating to the Occurrence of the Bilby (*Macrotis lagotis*) in the Vicinity of the Browse LNG Precinct and Broadly on the Dampier Peninsular.

Southgate, R.I. 1990. Distribution and abundance of the greater bilby *Macrotis lagotis* Reid (Marsupialia: Peramelidae). In: Seebeck, J.H., P.R. Brown, R.L. Wallis & C.M. Kemper, eds. Bandicoots and Bilbies. Page(s) 293-302. Surrey Beatty & Sons: Chipping Norton, NSW.

Southgate, R. and Carthew, S. 2006. Diet of the bilby (*Macrotis lagotis*) in relation to substrate, fire and rainfall characteristics in the Tanami Desert. *Wildlife Research*. 33: 507-519.

Southgate, R., Paltridge, R., Masters, P. and Carthew, S. 2007. Bilby distribution and fire: A test of alternative models of habitat suitability in the Tanami Desert, Australia. *Ecography*. 30: 759-776.

Southgate, R. and Carthew, S. 2007. Post-fire ephemerals and spinifex-fuelled fires: a decision model for bilby habitat management in the Tanami Desert, Australia. *International Journal of Wildland Fire*. 16: 741-754.

Appendix 1 Photos of bilby and other animal sign detected on site

Fig. A1 Bilby burrow

Fig. A2 Bilby digging and senescent *Yakirra*

Fig. A3 Bilby digging and scat burrow

Fig. A4 Dingo/wild dog prints

Fig. A5 Feral cat imprints

Fig. A6 Agile wallaby prints

Australian Government
Department of the Environment

Mr Tristan Cribb
Senior Development Manager
LandCorp Western Australia
tristan.cribb@landcorp.com.au

Dear Mr Cribb

Environment Protection and Biodiversity Conservation Act 1999
Re: Broome Road, Broome, WA

Thank you for your letter of 27 July 2015 regarding enquiries being made by the Department of the Environment (the Department) into an allegation that clearing at a proposed industrial site at Broome Road, Broome, WA, (the property) is, has or may impact on the Greater Bilby (*Macrotis lagotis*). The Greater Bilby is listed as vulnerable and is protected by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

I note that LandCorp has elected not to provide any comments on the expert report produced by Dr Richard Southgate.

Based upon the inspection of the property by the Department on 17 June 2015 and the report produced by Dr Southgate, the Department considers that the clearing in Stage 1 of the proposed development is unlikely to result in a significant impact on the Greater Bilby. This decision is made as landforms in the Western portion of the property deviate from the "Sand plain" and "Gently undulating sand plain" that support Pindan shrubland growth and provide for foraging and burrowing[1].

Recordings of the Greater Bilby were only found at the Eastern portions of the site. While part of the clearing may encroach on the Sand plain landform within Stage 1 of the development, the Department considers that the clearing, in isolation, would not reach the threshold for significant impact.

However, after reviewing the information contained within the report, the Department has formed the view that clearing outside of Stage 1 on the property may result in a significant impact on the Greater Bilby and is likely to require referral under the EPBC Act. For clarification, I have attached a map that indicates areas considered to be stage 1 of the development. Further removal of vegetation within the areas of the property marked by the blue polygon may constitute a controlled action under the EPBC Act and must be considered for referral to the Minister for the Environment for a decision.

This view is formed on the details in the report that describes the bioregion as having high conservation significance for the Greater Bilby due to fire regimes, lack of predation and ecological characteristics (Pindan shrubland) conducive to foraging, burrowing and itinerant

[1] Pp. 4, Southgate (2015) *Targeted Greater Bilby assessment of the Landcorp WA industrial development site near Crab Creek Road, Broome*

occupancy. The direct and indirect impacts identified in the report indicate that further proposed clearing at the property will reduce the extent of suitable habitat, introduce a barrier to movement, increase the risk of vehicle collision, and, in addition, alter fire regimes and introduce predation threats.

The criterion for defining significant impact on a vulnerable species in the Department's Significant Impact Guidelines[2] includes actions that are likely to "adversely affect habitat critical to the survival of the species" and "result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat".

No further compliance action by the Department is proposed in relation to the clearing on the property in Stage 1 of the development. I reiterate that clearing outside of Stage 1 may require referral under the EPBC Act.

Taking an action that is likely to, has, or will have an impact on a listed vulnerable species, such as the Greater Bilby, may be a breach of section 18 of the EPBC Act and penalties may apply. If clearing on the property results in a significant impact on a matter of national environment significance, in the absence of an approval, compliance action may result.

Yours sincerely

Director
Compliance Section
31 July 2015

[2] Department of the Environment, Water, Heritage and the Arts (2013) http://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf

Attachment: important Greater Bilby habitat Broome Creek Road, Broome, WA