

FACT SHEET – THE GREATER BILBY December 2016

Thunderbird Mineral Sands Project

The Thunderbird Mineral Sands Project, located on the Dampier Peninsula between Broome and Derby, is being developed by Western Australian company Sheffield Resources Limited.

Thunderbird is a large-scale, mineral sands mining and processing project with low environmental impacts and long term benefits. Sheffield proposes to undertake mining of mineral sands for more than 40 years from the Thunderbird deposit.

Sheffield is undertaking a Bankable Feasibility Study (BFS) and Public Environmental Review (PER) of Thunderbird, scheduled for completion in 2017. Start of construction is planned to follow with first exports through the ports of Derby/Broome targeted for 2019.

Sheffield believes that Thunderbird can help transform the community through the creation of 140 permanent and many indirect local jobs. Income would stay in the region supporting families, business, cultural values and lifestyle.

The Greater Bilby

The Greater Bilby (*Macrotis lagotis*) is a conservation significant species, classified as *Vulnerable* under both Commonwealth and State legislation. Its distribution in Australia has significantly decreased over time and is confined to isolated areas like the Dampier Peninsula.

An elusive nocturnal marsupial unique to Australia, it is also known as the Rabbit Eared Bandicoot, with long 'rabbit-like' ears and long pointed nose covered by sensory whiskers. They have soft silky ash grey fur with a white or cream belly and long black white tipped tail. It has forelimbs adapted for digging and lives in underground burrows. Bilbies eat a variety of foods, but prefer insects, bulbs and fruit., helping them survive in arid regions that experience dramatic changes in food availability. The occurrence of bilbies can be linked to food availability and populations are known to move long distances when habitat becomes unsuitable.

Bilbies at Thunderbird

Evidence of bilby presence was observed at the proposed Thunderbird Mineral Sands Project during a series of baseline fauna surveys undertaken between 2012 and 2015. A targeted Bilby survey was undertaken to clarify which parts of the project area were being used. Signs of Bilby activity observed at the proposed Mine Site included diggings, scats, and both active (used within the last week) and inactive burrows. Bilby presence was confirmed at two active burrows using motion sensor cameras.

Regionally, the Greater Bilby has mainly been reported in open woodland and open forest pindan vegetation types. Despite this, Bilby activity at the proposed Mine Site was mainly observed within Pindan Shrubland, particularly in a dense, mature *Acacia tumida* var. *tumida* woodland micro-habitat. Bilby activity at the proposed Mine Site was recorded both within the proposed Development Envelope and surrounding areas.



“Australia is a major producer of mineral sands. Non-reactive and non-toxic, mineral sands products are used in paints and artificial joints, in toothpaste, crockery and porcelain, medicines, food colouring and sunscreen.”

How could the Thunderbird potentially impact Bilbies?

Potential impacts on the Greater Bilby that could result from the project include:

- ✓ Fragmentation of habitat resulting in displacement.
- ✓ Clearing activities causing injury or death.
- ✓ Vehicle strike causing injury or death.
- ✓ Increased predation causing injury or death.
- ✓ Altered fire regime causing injury, death or loss of habitat.
- ✓ Light and noise pollution disrupting nocturnal activities.
- ✓ Entrapment leading to injury or death.

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How will potential impacts be managed?

Sheffield has developed a Draft Bilby Management Plan. This has taken into consideration feedback from stakeholders based in the Kimberley's and in Perth who are actively engaged in research and on the ground conservation programs. The Plan is intended to be adaptive and will be updated as more knowledge about Bilby behaviour in the Kimberley and information on the effectiveness of the proposed management measures is collected.

Management Measures

Proposed management measures include but are not limited to:

- ✓ Minimising clearing of Bilby habitat.
- ✓ Progressively rehabilitating mined areas to allow regeneration of vegetation suitable for Bilbies.
- ✓ Undertaking pre-clearance surveys prior to disturbing Bilby habitat.
- ✓ Vehicles will not be permitted to leave access tracks or cleared areas.
- ✓ Implementing speed limits along project access roads and tracks.
- ✓ Limiting vehicle traffic between dusk and dawn on the Site Access Road to essential travel.
- ✓ Undertaking pest animal control within the Mine Site in co-operation with regional control programs.
- ✓ Minimising the risk of fire being generated by project activities and maintaining firefighting response to minimise spread of bushfires.
- ✓ Considering need, placement and type of lighting for the project to minimise light spill to the environment.
- ✓ Training personnel and contractors on the presence of the Bilby and their responsibilities to ensure it is not impacted.

Offset Program

As part of the environmental impact assessment process, Sheffield has proposed a draft offset program to address impacts on Bilby habitat and populations. The key component of the draft offset program is establishment of a Kimberley Greater Bilby Trust that will have the following objectives:

- ✓ Facilitate priority research for the Greater Bilby in the Kimberley. Research into Bilbies in the West Kimberley is already being undertaken by Murdoch University in collaboration with industry in the region. A number of non-government organisations are also conducting research into Bilbies within the region, much of which is in consultation with Traditional Owners.
- ✓ Fund on-ground environmental and conservation management at the landscape level, with emphasis on net conservation benefits to the Greater Bilby.
- ✓ Facilitate indigenous involvement in land management and conservation relevant to the greater Bilby.
- ✓ Share outcomes of Trust work to assist with increasing effectiveness of conservation activities.

Funding managed by the trust would be allocated on an annual basis to projects that meet the objectives of the Trust. Sheffield is keen to explore this concept further with stakeholders, as to be effective, it needs wide acceptance and buy in.

