



The Chandler Proposal - Biodiversity

How were potential impacts assessed?

Extensive biological field surveys have been undertaken within the proposed development footprint and vicinity over the past four years. Sixty-nine sites were surveyed in total. The surveys were undertaken over several seasons and in varying weather conditions. Assessments of significance were undertaken to determine potential impacts on conservation significant species.

What were the results of the assessment?

Vegetation communities within the proposed development footprint and vicinity consist of open and sparse shrublands and hummock grassland. A range of habitat types support a diverse abundance of arid flora and fauna - a total of 194 plant species and 143 fauna species (25 reptile species, 89 bird species and 29 mammal species) were recorded over the four years of field surveys. There are no sensitive or significant vegetation communities within the proposed development footprint or vicinity.

Threatened flora

No threatened flora species listed under the TPWC Act and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) have been recorded or are predicted to occur within the proposed development footprint or vicinity.

Threatened fauna

Secondary signs of three threatened fauna species were recorded within the vicinity of the proposed development footprint. These were brush-tailed mulgara (*Dasymercus blythi*), crest-tailed mulgara

(*Dasymercus cristicauda*) and southern marsupial mole (*Notoryctes typhlops*) (all listed as vulnerable under the TPWC Act and/or EPBC Act).

An additional five threatened species listed under the TPWC Act and/or EPBC Act) are considered to have a low to moderate, moderate, or high likelihood of occurrence within the proposed development footprint or vicinity.

Migratory species

Three migratory bird species were recorded during the field surveys within the proposed development footprint or vicinity. These were sharp-tailed sandpiper (*Calidris acuminata*), rainbow bee-eater (*Merops ornatus*) and marsh sandpiper (*Tringa stagnatilis*). An additional five migratory species are considered to have a moderate to high likelihood of occurrence within the proposed development footprint or vicinity. All of these species are listed under the EPBC Act.



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What did the assessment conclude?

Construction of the Proposal would result in the removal of approximately 397.5 hectares of vegetation. The removal of this vegetation would result in the loss of fauna habitat.

Construction of the Proposal may also result in indirect impacts on biodiversity including impacts associated with fauna displacement, injury or mortality; fauna strike; and increased dust, light, noise and vibration. Indirect impacts may also include the introduction and spread of weeds and invasive species; increased predator species; increased introduced fauna use; and an increased incidence of fire.

Operation of the Proposal may result in indirect impacts including fauna strike; increased light, noise and vibration; the introduction and spread of weeds and invasive species; an increased incidence of fire; and potential impacts associated with salt runoff and windblown salt from stockpiles. Potential impacts on biodiversity during closure and rehabilitation of the Proposal would generally be the same as those during construction of the Proposal.

The indirect impacts listed above would be eliminated or reduced through the implementation of mitigation measures contained within a Biodiversity Management Plan.

The potential for significant impacts on matters of national environmental significance and on state-listed threatened species were assessed in accordance with significant impact guidelines prescribed by the EPBC Act. The results of the assessments concluded that there would be no significant impact on species listed as threatened under the TPWC Act and/or EPBC Act. The primary reason for this is because no habitat critical to the survival of these species would be impacted - suitable habitat for the species' is widespread within the vicinity of the proposed development footprint.

At present, no biodiversity offsets are deemed necessary as there would be no significant impact to matters of national environmental significance during construction, operation, or closure and rehabilitation of the Proposal.

What mitigation measures would be implemented to reduce potential impacts on biodiversity?

Additional, targeted surveys would be undertaken prior to construction to confirm the presence/absence of two matters of national environmental significance (threatened species) considered to have a low to moderate likelihood of occurrence within the proposed development footprint or vicinity. These are Slater's skink (*Liopholis slateri slateri*) and the thick-billed grasswren (*Amytornis modestus indulkana*). Potential habitat for these species is located within the vicinity of the proposed Henbury Access Road. If these species are found to be present, significant impacts would be avoided through changes to the proposed alignment of the Henbury Access Road. Alternatively, a program of trapping and relocating would be implemented to avoid significant impacts to these species.

Mitigation and management measures would be implemented to reduce the potential impacts on biodiversity during construction, operation, and closure and rehabilitation of the Proposal. These mitigation and management measures include the development of a Biodiversity Management Plan and Bushfire Management Plan. These plans would be incorporated into the Construction Environmental Management Plan, Operational Environmental Management Plan and/or Rehabilitation Closure Plan for the Proposal.



Southern marsupial mole backfilled tunnels in a mole trench on the bank of the Finke River