ENDANGERED WILDLIFE TRUST
Protecting forever, together.

08 January 2025 revision (revisions in bold and italics)

18 December 2024 version 1

DIGES GROUP

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Attention: Brenda Makanza

Recommendations relating to Kimberley strengthening phase 3 scheme: Ferrum Mookodi 400 kV Line 2.

EWT has been requested by DIGES Group to review the adequacy and feasibility of the mitigation measures indicated in the avifauna reports. In the report EWT will make referrals to one document assessed; the avifaunal walkdown by The Biodiversity Company dated December 2024. EWT did not read recommendations made by Molepo (2020). EWT will also make any additional recommendations not in the avifaunal walkdown report.

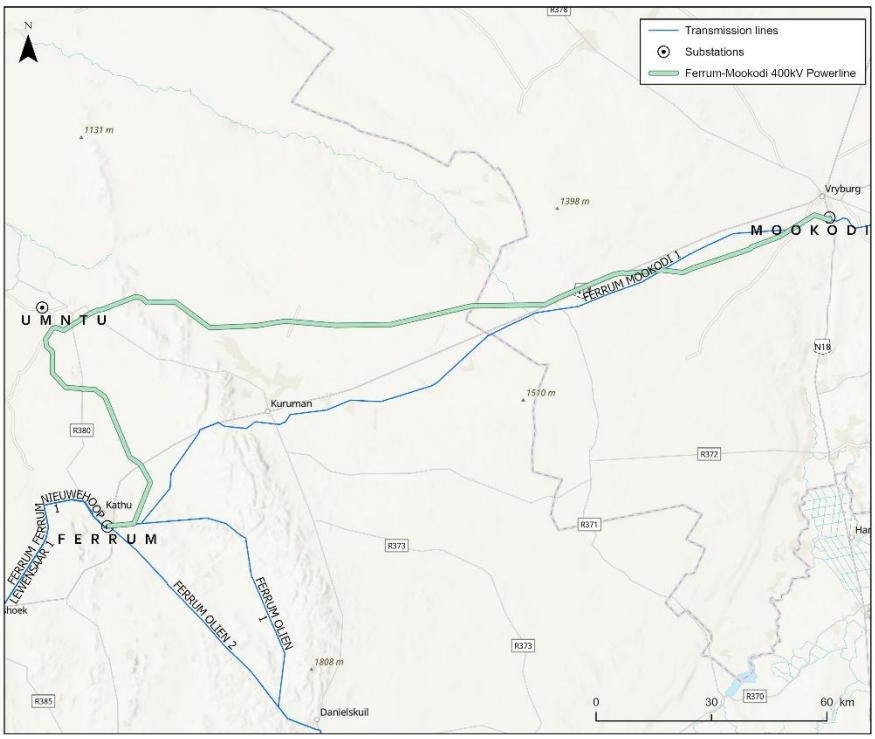

Figure 1: Existing NTCSA power lines in and around Ferrum and Mookodi substations indicated by thin blue lines and the proposed Ferrum Mookodi power line indicated by think green line. In this project

area, we recorded incidents of Cape Vulture, Lappet-faced Vulture and White-backed Vulture indicating the need for collision mitigation.

Recommendations including review of recommendations

Recommendations regarding bird collision risk

- The walkdown recommends that the entire power line or the parallel power line be installed with bird flight diverters. As mentioned in the walkdown report there are two vulture restaurants both at least 60km from the power line. Three vulture species use the project area intensively (based on previous site visits. (MO Mohale, based on previous visits on the northern side of the line). There have been a few records of the three species; Lappet-faced Vulture, Cape Vulture and White-backed Vulture. The common challenge faced by the vulture species with regards to high voltage (HV) power lines is collision. Electrocution is very rare on HV power lines due to large electrical spacing among live conductors and between live conductors and earthed structures.
- If for any reason the entire line cannot be marked, the spans near water from 202-319 must be installed with bird flight diverters especially where the power line crosses the river / water body. Towers 108 -201 where there are rocky ridges that may obscure the power line must be mitigated with bird flight diverters. Furthermore, there were many vultures observed in this section of the project area. In summary as per the two points above towers 108 to 319 are very high risk in addition to the line being high risk as per the avifaunal Site Ecological Importance.
- ***Bird flight diverters (BFDs) are to be spaced at the maximum 15m apart on the shield wire as per the known technical knowledge or industry standards. On one shield wire the spacing should be 30m and staggered 30m on the opposite shield wire, however in total, the power line with two shield wires will have 15m when approached from any side hence where the runs parallel with the existing line it may be ideal to mark the outer shield wires of the new and existing line, thus reducing the collisions for the servitude. Due to the challenges installing BFDs on existing lines, should this recommendation be considered the first BFD should be at the maximum be 20m from the tower.***

Recommendations regarding nesting

- Construction to adhere to recommended seasonal no-go buffers for active Greater Kestrel nests near the proposed line during the breeding season as per the walkdown report.
- In this project area where trees are minimal especially further south to Ferrum, towers will provide a steady nesting platform for birds such as Greater Kestrel, Crow spp., white-backed Vulture, martial Eagle and Verreaux's Eagle, which are likely to lead to power supply issues and therefore may require anti-perch devices to prevent birds building above critical live conductors.
- Towers close to water bodies e.g. towers 291 to 319, are more at risk as the habitat feature attracts streamer causing aquatic bird species such as Egyptian Goose, South African Shelduck

and Red-billed Teal, and thus need anti perch devices and any approved mitigation that can prevent bird streamer from reaching live conductors.

- Sociable Weaver nests cannot be prevented on HV lattice structures during construction. The nesting management guideline detailing responsible destruction and relevant procedure such breeding season and legislation of these nests need to be developed with avifaunal specialists.

<u>Post construction monitoring and line maintenance to be part of the EMPr</u>

- All data of fatalities need to be recorded in the national database (CIR) and incidents to undergo NTCSA environmental incidents management procedure.
- Any devices that become damaged or fall during the operational phase to be replaced within a year of being identified.
- The entire line to be monitored quarterly in the first year from the start of the line being built and second year line to be monitored biannually. First two years to be monitored by a registered avifaunal specialist. Quarterly and biannual ornithological management reports to be produced and actioned within a year of the reports being received. Further annual monitoring to be integrated into NTCSA's annual line maintenance schedules by internal Environmental practitioners.
- Should new knowledge and products that can significantly improve visibility for the species of concern be available, the products need to be considered for additional mitigation for this site.

If you have any questions do not hesitate to contact the undersigned.

08 January 2025

Mr Oscar Mohale

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Endangered Wildlife Trust

References

Kemp R. (2024) Avifauna basic assessment and walkdown – Kimberley Phase 3 Ferrum Mookodi powerline project. The Biodiversity Company.