

MOKOPANE INTEGRATION PROJECT – An Eskom initiative

Recommendations from the Specialist integration workshop

DATE:	03 September 2009
TIME:	10:00 to 13:30
VENUE:	Savannah Environmental Boardroom , Sunninghill
FACILITATOR:	Ms. Jo-Anne Thomas

PRESENT

- Jo-Anne Thomas – Savannah Environmental
- Zama Dlamini – Savannah Environmental
- Riaan Robbeson – Bathusi Environmental Consultants
- Megan Diamond – Endangered Wildlife Trust (EWT)
- Garry Paterson – Agricultural Research Council: Institute for Soil, Climate and Water (ARC: ISCW)
- Julius Pistorius – Heritage consultant
- Lourens du Plessis – MetroGIS
- Nonka Byker – MasterQ Research
- Bhavani Daya - ILISO
- Karin Bowler – Karin Bowler Enterprises
- Reuben Heydenrych – Arcus Gibb
- Henry Nawa – Eskom Transmission

1. Specialists' Recommendations with regard to corridor and substation alternatives

Each specialist presented a summary of the findings of their specialist studies. A summary of the conclusions and recommendations of each specialist in terms of a preferred corridor and substation alternative is presented in the table below (see attached maps).

Specialist	Power line Corridor	Substation
Riaan Robbeson – Biodiversity specialist	Corridor 2 has a moderate sensitivity from a biodiversity perspective and is nominated as the preferred option. Corridor 5 is the preferred corridor between the Mokopane and Witkop substations.	Substation site 1 has a moderate sensitivity from a terrestrial fauna and flora perspective, and is nominated as the preferred option
Megan Diamond - Avifauna	Although a number of issues were identified to be associated with Corridor 8 , it is considered to be a preferred corridor as it follows the existing Matimba-Witkop lines. These lines present an existing impact to birds in the area and birds would have become habituated to the presence of these lines. Construction of the new lines alongside the existing lines would make the new lines more visible to birds thereby reducing the risk of collisions. This option is preferred on the condition that the new lines are constructed immediately parallel to the existing lines. If the new lines are required to deviate from the existing lines, this option is no longer preferred and would present similar impacts to the other corridors under consideration. Both Corridor 5 and 6 are preferred from an avifauna perspective.	Substation site 1 is transformed as compared to substation 3 and 4 and is therefore considered to be the preferred alternative.
Agricultural potential	The southern corridor (Corridor 1) is preferred.	Substation site 4 is preferred from an agricultural perspective. This is still to be confirmed through detailed field investigations.

Specialist	Power line Corridor	Substation
Heritage	Corridor 2 and 5 are preferred from a heritage perspective. Corridor 1 has a high sensitivity status from a heritage perspective, and is hence considered to be a no-go option.	Substation site 4 is the preferred option
Visual Impact	Corridor 2 and 5 are preferred from a visual perspective. Corridor 8 presents the opportunity to consolidate infrastructure (if the new power lines are constructed immediately adjacent to the existing lines). However, cumulative impacts within this corridor are of concern.	Substation site 4 is the furthest removed from sensitive visual receptors and is therefore the preferred alternative.
Social Impact Assessment	Corridor 8 is nominated as the preferred alternative, provided that the proposed new power lines are constructed adjacent to the existing power lines. Corridor 2 is a second preferred corridor.	Substation site 4 is preferred from an SIA perspective.

Outstanding Issues

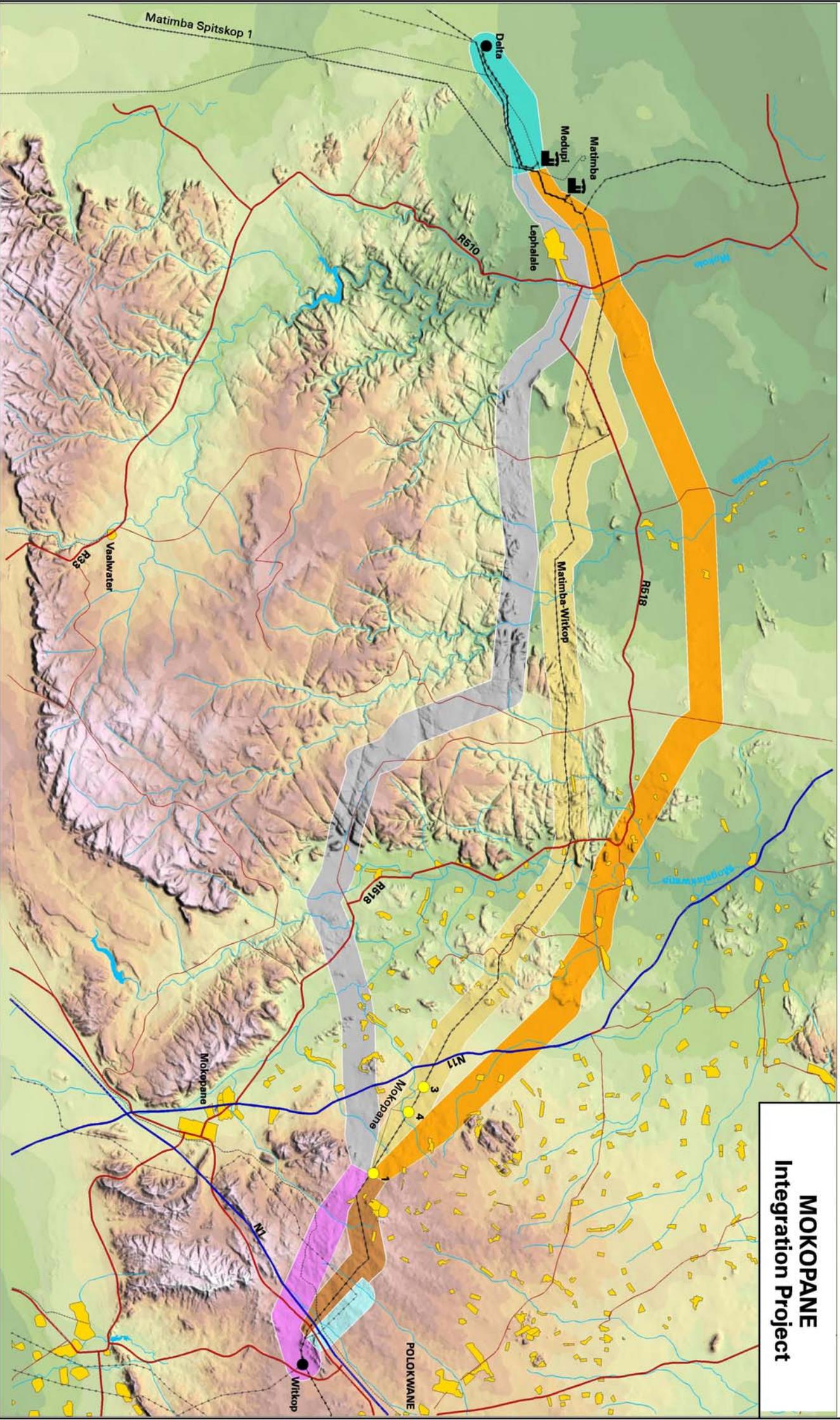
Clarity and confirmation from Eskom Planning as to whether it is possible avoid existing caves by deviating around these sensitive areas along the existing Matimba-Witkop lines.

Overall conclusion:

The following conclusions were made from the specialist workshop:

- If the proposed new lines cannot be constructed directly adjacent to the existing Matimba-Witkop lines, this option would no longer be preferred from an avifauna, social and visual perspective.
- Corridor 1 is considered to be a no-go option from the conclusions of the majority of the specialist studies undertaken. This option was only preferred from an agricultural potential perspective. However, it was noted that most agricultural activities can be undertaken underneath power lines and therefore this issue is not considered to be significant.
- **Corridor 2** is considered to be the preferred alternative for the Medupi-Mokopane section of the power line.
- **Corridor 5** is considered to be the preferred alternative for the Mokopane-Witkop section of the power line.
- No issues of significance were identified to be associated with Corridor 7 (Delta-Medupi).
- **Sites 1 or 4** are considered suitable for the construction of the proposed substation. Either site can be selected from an environmental perspective.

MOKOPANE Integration Project



- National Road
- Main Road
- Secondary Road
- Town/Settlement/Village
- Transmission Line
- Railway Line
- River
- Power Station
- Substation (Proposed & Existing)

- Transmission Line Alternatives (5km development corridors)**
- Corridor 1
 - Medupi Mokopane 1
 - Corridor 2
 - Medupi Mokopane 2
 - Corridor 4
 - Mokopane Witkop 1
 - Corridor 5
 - Mokopane Witkop 2
 - Corridor 6
 - Mokopane Witkop 3
 - Corridor 7
 - Delta Medupi 1
 - Corridor 8
 - Matimba Witkop (existing lines)

- Elevation above sea level (m)**
- 850
 - 900
 - 950
 - 1000
 - 1050
 - 1100
 - 1150
 - 1200
 - 1250
 - 1300
 - 1350
 - 1400
 - 1450
 - 1500
 - 1550
 - 1600
 - 1650
 - 1700
 - 1750
 - 1800
 - 1850
 - 1900
 - 1950

10 0 10km

