

**PREPARED FOR:
ESKOM NORTHERN REGION (POLOKWANE)**

**A PHASE I HERITAGE IMPACT ASSESSMENT (HIA) STUDY FOR
ESKOM'S PROPOSED NEW 132kV POWER LINE BETWEEN THE
EXISTING VOORSPOED SUBSTATION AND THE PROPOSED NEW
DWAALKOP SUBSTATION NEAR CHUNIESPOORT IN THE LIMPOPO
PROVINCE OF SOUTH AFRICA**

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EXECUTIVE SUMMARY

A Phase I Heritage Impact Assessment (HIA) study as required in terms of Section 38 of the National Heritage Resources Act (Act 25 of 1999) was done for Eskom's proposed new 132kV power line to be established between the existing Voorspoed Substation on Voorspoed 458 and the proposed new Dwaalkop Substation on Doornvlei 456 near the former Lebowa homeland in Chuniespoort in the Limpopo Province of South Africa.

The aims with the HIA study were to establish whether any of the types and ranges of heritage resources ('national estate') as outlined in the National Heritage Resources Act (Act 25 of 1999) do occur in or near the proposed new power line corridor and substation (project area) (Box 1).

The Phase I HIA study for the proposed new 132kV power line and substation revealed none of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999). There is consequently no reason from a heritage point of view why the proposed new 132kV power line and substation should not be constructed.

If any heritage resources of significance is exposed during this development project the South African Heritage Resources Authority (SAHRA) should be notified immediately, construction activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notify in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.

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1 TERMS OF REFERENCE

Eskom intends to construct a new proposed 132kV power line between the existing Voorspoed Substation on Voorspoed 458 and the proposed new Dwaalkop Substation on Doornvlei 456 near the former Lebowa homeland in Chuniespoort in the Limpopo Province of South Africa.

The construction of the proposed new power line and substation may affect some of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) (see Box 1). Consequently, Eskom commissioned the author to undertake a Phase I Heritage Impact Assessment (HIA) study for the proposed new power line corridor and substation. The aims with the Phase I HIA were the following:

- To establish whether any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (Act 25 of 1999) do occur in or near the proposed new power line corridor and substation (Eskom Project Area) and, if so, to establish the significance of these heritage resources.
- To establish whether such heritage resources will be affected by the proposed new power line, and, if so, to determine possible mitigation measures that can be applied to these heritage resources.

2 THE ESKOM PROJECT AREA

Eskom's proposed new power line will be constructed across Voorspoed 458 and Doornvlei 456 near the former Lebowa homeland in Chuniespoort in the Limpopo Province of South Africa. (The proposed new power line and substation is hereafter referred to as the Eskom Project Area).

The Eskom Project Area is located directly to the north of the R512 national road which runs between Zebediela (west) and Lebowa (east) in the Lepelle-Nkumpi Local Municipality in the Capricorn District Municipality in Limpopo Province of South Africa (2429AD Zebediela, 1:50 000 topographical map) (Figure 1).

3 METHODOLOGY

This Phase I HIA study was conducted by means of the following:

- Surveying with a vehicle the Eskom Project Area at large and focusing on sensitive spots which were surveyed on foot.
- Briefly surveying literature relating to the pre-historical and historical context of the Eskom Project Area.
- Consulting maps of the Eskom Project Area as well as peripheral areas adjoining the Project Area.
- Consulting archaeological (heritage) data bases such as the ones kept at the Limpopo Provincial Heritage Resources Agency as well as at Museum Africa in Pretoria (Tshwane).
- Synthesising all information obtained from the literature survey, maps, data bases and spokespersons with the evidence derived from the fieldwork in this report.

It is possible that this Phase HIA study may have missed heritage resources in the Eskom Project Area as heritage remains may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once development commences.

If any heritage resources of significance is exposed during this development project the South African Heritage Resources Authority (SAHRA) should be notified immediately, construction activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notify in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.

4 THE PHASE I HERITAGE IMPACT ASSESSMENT STUDY

The Phase I HIA study for the proposed new Voorspoed-Dwaalboom power line and substation revealed no heritage resources of significance. The Phase I HIA study is now briefly discussed and illuminated with photographs.

The first stretch of the proposed new power line runs from the existing Voorspoed substation westwards and then southwards across Voorspoed 458. The area is degraded as a result of development activities such as the following: Lonmin's mining infrastructure to the east of the substation; existing residential areas to the south and east of the substation; newly planned developmental activities to the west of the substation and formal and informal roads.

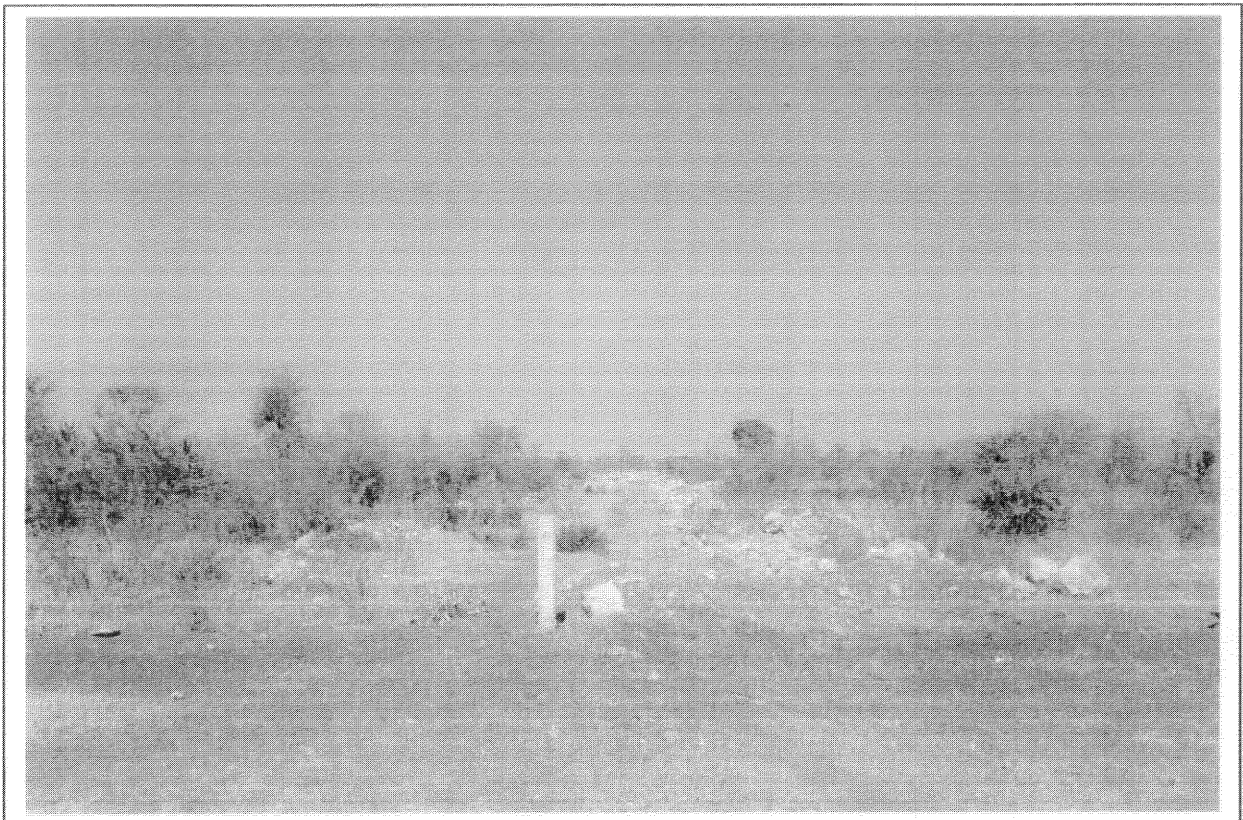


Figure 1- The first stretch of the proposed new Voorspoed-Dwaalkop power line runs across an extremely degraded area (above).

The second and final stretch of the proposed new power line runs westwards across Doornvlei 456 to the proposed new Dwaalkop substation. This stretch for the proposed new power line is also degraded. Grazing activities of cattle and harvesting of fire wood has scarred this stretch along the proposed new power line.

The stand for the proposed new Dwaalkop substation has also been altered by earlier agricultural activities.

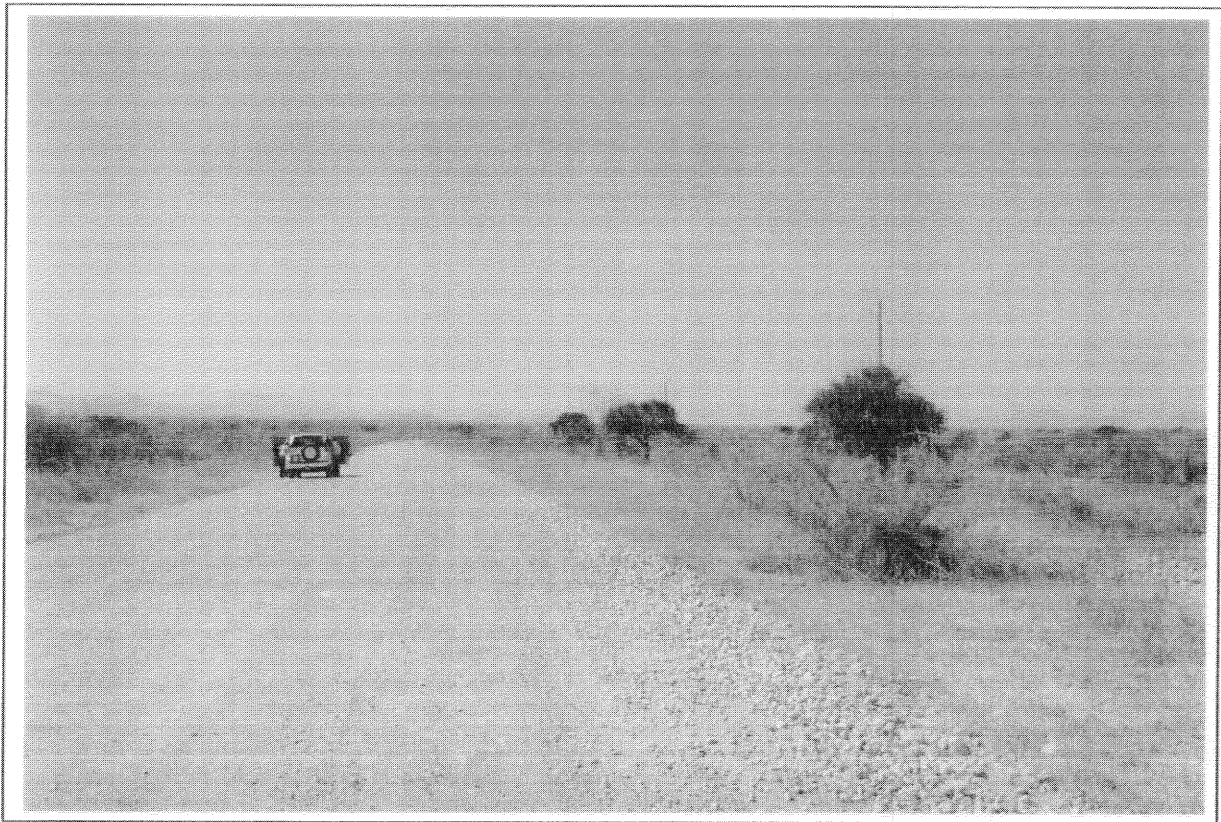
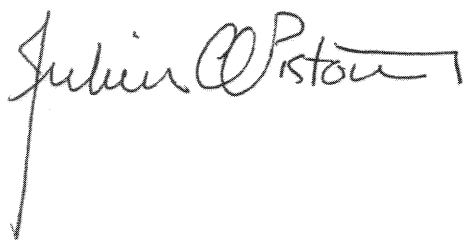


Figure 2- The second stretch for the proposed new Voorspoed-Dwaalkop power line runs across low acacia shrubs and limestone deposits (such as those exposed by the dirt road) to the proposed new Dwaalkop substation (above). This stretch along which the power line will run has been degraded due to cattle herding and the collecting of fire wood.

5 CONCLUSION AND RECOMMENDATION

The Phase I HIA study for the proposed new 132kV Voorspoed-Dwaalkop power line and the proposed new Dwaalkop substation revealed none of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999). There is consequently no reason from a heritage point of view why the proposed new 132kV power line and substation should not be constructed.

If any heritage resources of significance is exposed during this development project the South African Heritage Resources Authority (SAHRA) should be notified immediately, construction activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notify in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.



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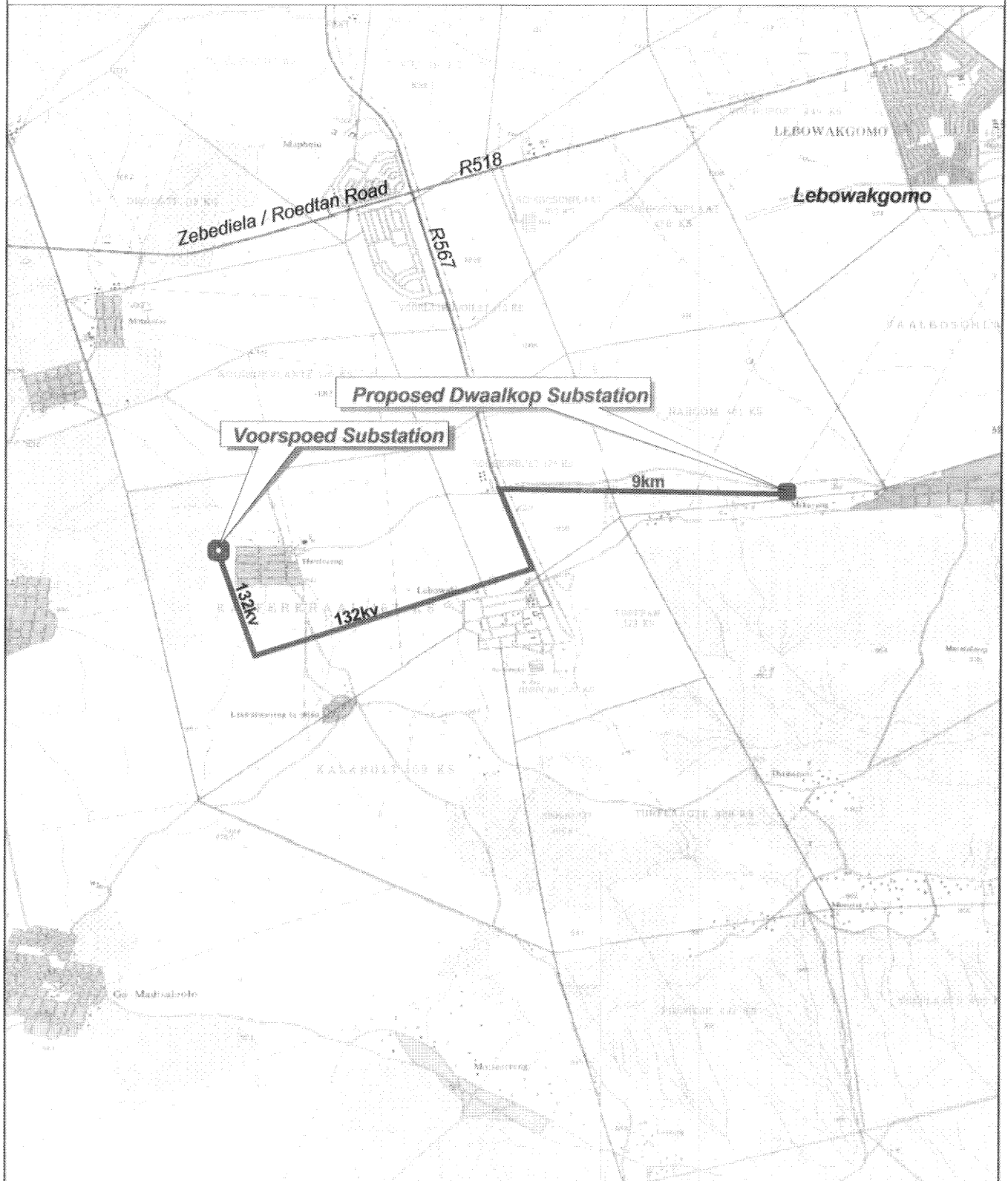
Pistorius, J.C.C. 2007. *A Phase I Heritage Impact Assessment for the proposed Mphahlele Project in Chuniespoort in the Limpopo Province of South Africa*. Unpublished report for Metago Environmental Engineers.

LOCALITY MAP: ESKOM VOORSPOED - DWAALKOP 132KV LINE AND SUBSTATION (ALTERNATIVE 1)



Environmental Impact Assessment Process, undertaken by
Landscape Dynamics Environmental Consultants

Scale 1 : 75 000



Adapted from 1 : 50 000 topographical map 2429AD and 2429BC

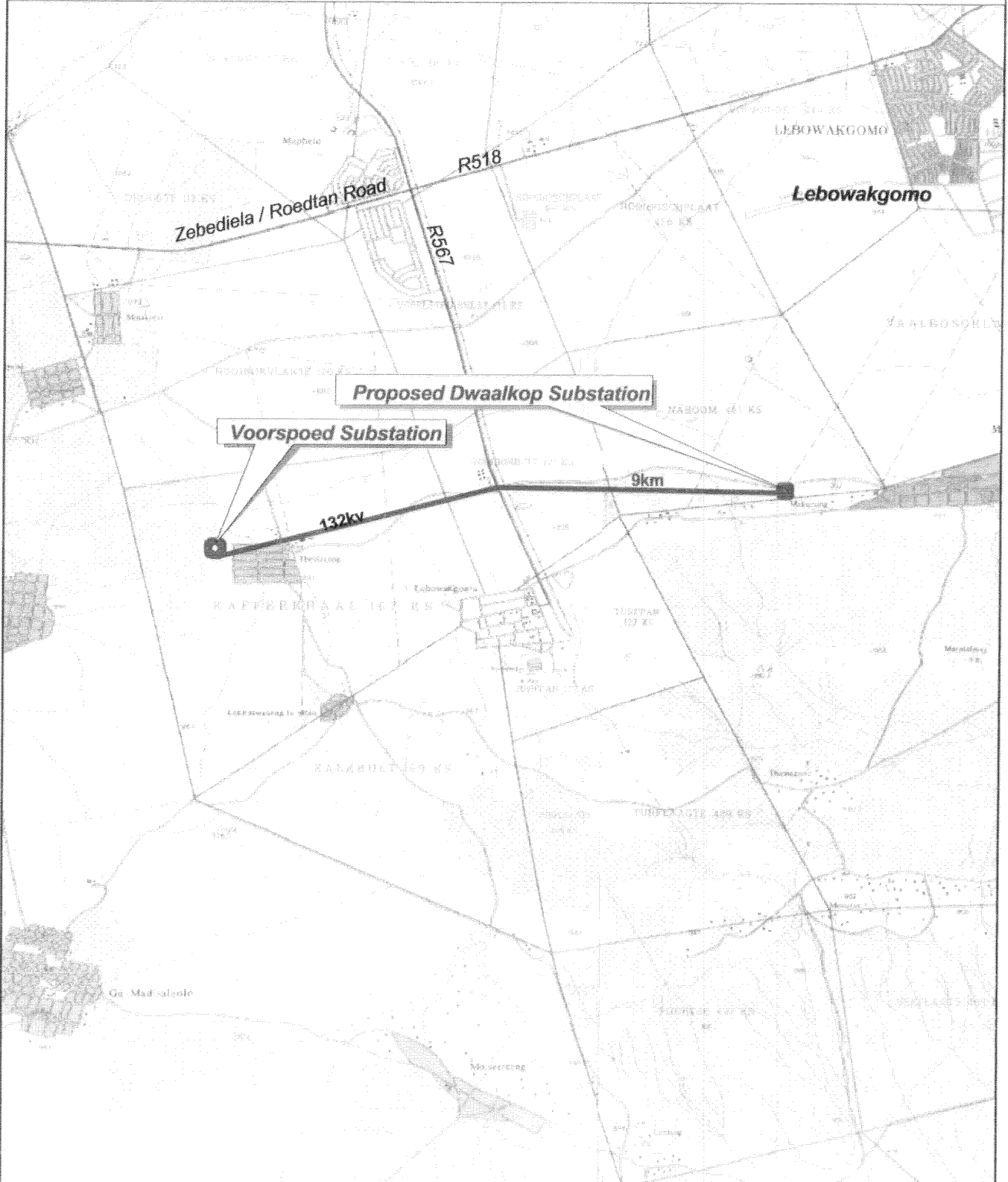
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LOCALITY MAP: ESKOM VOORSPOED - DWAALKOP 132KV LINE AND SUBSTATION (ALTERNATIVE 2)



Environmental Impact Assessment Process, undertaken by
Landscape Dynamics Environmental Consultants

Scale 1 : 75 000

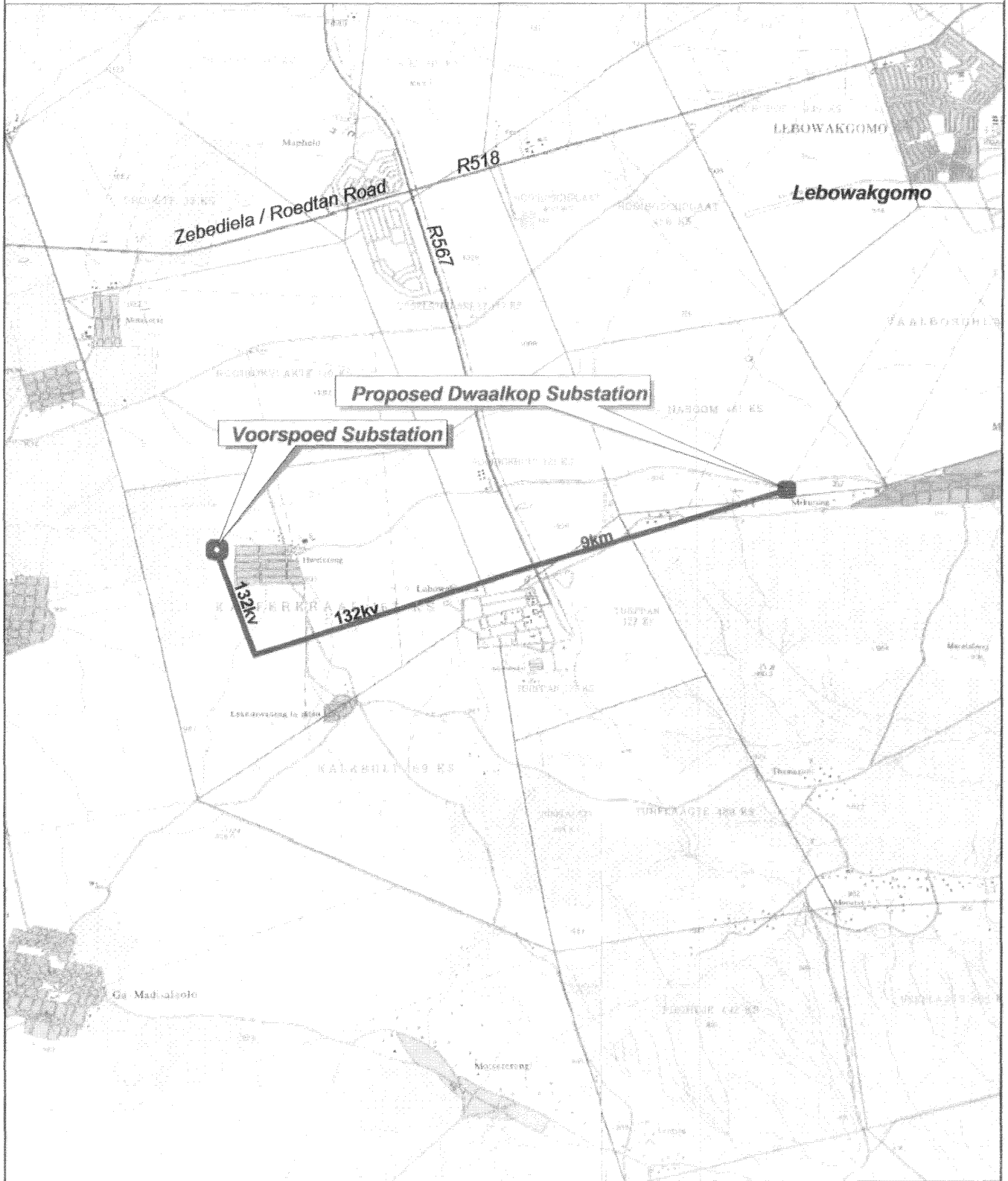


LOCALITY MAP: ESKOM VOORSPOED - DWAALKOP 132KV LINE AND SUBSTATION (ALTERNATIVE 3)



Environmental Impact Assessment Process, undertaken by
Landscape Dynamics Environmental Consultants

Scale 1 : 75 000



LOCALITY MAP: ESKOM VOORSPOED - DWAALKOP 132KV LINE AND SUBSTATION (ALTERNATIVE 1, 2 and 3)



Environmental Impact Assessment Process, undertaken by
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Scale 1 : 75 000

