ADIS-PHOEBUS 400kV TRANSMISSION LINE

ENVIRONMENTAL IMPACT ASSESSMENT

FINAL SCOPING REPORT

June 2003

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EXECUTIVE SUMMARY

DEVELOPMENT PROPOSALS

Eskom Transmission Division is proposing to build the Adis substation at a site near Brits in the North West Province and a new 400kV Transmission line from Adis to the Phoebus substation some 26km east of Adis. The Phoebus substation will be at the existing site of the Hangklip substation just south of Soshanguve, Gauteng. This Scoping Report considers the environmental impacts of the Transmission Line. A separate EIA has been done for the substation in parallel with this study.

MOTIVATION FOR THE PROJECT

The Adis-Phoebus line and Adis substation form part of an earlier development proposal – the Bighorn-Adis-Phoebus line that was initiated in the late 1990's and for which environmental authorisation was awarded. (Bighorn is near the town of Marikana, just east of Rustenburg in the North West Province). The Bighorn-Adis section of the new 400kV Transmission line was constructed and is now operational at 88kV, but the construction of the remaining network was delayed. The Bighorn-Adis-Phoebus 400kV development is part of a wider upgrade of the regional Transmission network, linking the growing economy of the Brits-Rustenburg area to the Matimba Power Station near Ellisras, and the Power Stations in the Mpumalanga province.

STUDY PROCESS

Given the previous environmental authorisation of the project, and that the servitude for the Adis-Phoebus line has since been registered by Eskom Transmission Division, it has been agreed with the national and provincial authorities that a Scoping Study will be undertaken with some assessment of the environmental issues, and that a full EIA would not be necessary unless additional issues were identified during the Scoping Study that would require further detailed study. As part of this motivation it was acknowledged that considerable collective experience exists on the generic environmental impacts of Transmission infrastructure, and that this would place the Scoping study at a more advanced level early in the study process.

The lead authority for this study is the National office of the Department of Environment Affairs and Tourism (DEAT), though the respective provincial offices in the North West Province (NW-DACE) and Gauteng (GDACEL) remain involved in the study review and decision making.

PUBLIC CONSULTATION

A comprehensive consultation process has been undertaken in this Scoping Study. This has included:

- Registered letters containing copies of the original servitude option and corresponding maps, and Background Information Documents (BIDS) have been sent to all landowners
- Advertising the study in the local media: Beeld Pretoria, Pretoria News, Sowetan, Brits Pos, and Pretoria Record North.

- Background information documents were made available at municipal offices, community centres and local libraries
- A Key Stakeholder Workshop was held on the 23 May 2003 and the proceedings sent to all invited parties
- Landowners were telephonically contacted and invited to the workshop. Where stakeholders did not wish to make use of this opportunity, they were invited to submit issues in writing by fax.
- A telephonic meeting was held with the Kgosi and he stated that the development was welcome. A copy of the DSR was placed at the Tribal Offices for his information and comment.
- The DSR was placed at Tshwane Metro Council offices; Akasia Municipal offices; Akasia Municipality; Madibeng (Brits) Municipality; Brits library and Soshanguve library.
- Extracts from DSR were given to liaison officers, families residing in the servitude and Kgosi Motsepe.

Feedback from the consultation is recorded in the I&AP database and incorporated in this Final Scoping Report.

KEY ISSUES

The study covered a wide range of issues and these are presented in Appendix D. however the key issues for which specialist input was obtained included:

- Ecology – fauna and flora
- Archaeology
- Social issues
- Avi-fauna (birds impacts)

ASSESSMENT SUMMARY

The impact assessment is presented in a set of Impact Tables in Appendix D. a summary of the overall impacts is as follows:

In the local context the net impact of the proposed 400kV Transmission line would appear to be negative. The net negative impact of large infrastructure on the physical environment is unavoidable, as are the visual impacts to a greater extent. However, there is some potential benefit to the local physical environment if careful rehabilitation and long-term maintenance of the area around the substation is provided (though this is not seen to offset the overall physical impact).

The impacts on the social environment are somewhat more complex, and many relate to the construction period. The health risks are low, but disruption to the social fabric of the communities could be high with long-term consequences unless the construction phase is carefully controlled. However, with careful management, the negative impacts on the local communities will be low and has been achieved elsewhere on similar developments, but it is important that good management is provided both from the contractor and the developer (Eskom Transmission Division).

A particular aspect of the social impacts that will need to be addressed is the anticipated relocation of properties in the servitude. There are three properties near the Vametco Mine that have been in existence since before the registration of the servitude (see location 3 on Map 5.1). The residents of these properties will need to be compensated and relocated outside of the servitude area by Eskom Transmission Division. Further to the east there are a number of informal houses that have encroached into the servitude (see location 28 on Map 5.2). These properties will also need to be moved outside of the servitude and the owners compensated. In both cases the registered landowner was the national or provincial government until the servitude was registered, and these authorities will need to be involved in the relocation process. It is understood that the local authority (municipal) representatives will assist with the process in this regard. It is important that relocation and compensation is completed before construction of the line starts in these areas.

There are two locations where the servitude has not been finalised. Neither are of particular concern from an environmental perspective. The first is the servitude linking the new line to the proposed Adis substation. This land is owned by Madibeng Municipality who is currently in the negotiation process with Eskom Transmission Division for the sale of the land and is therefore aware of the development proposals. The second is understood to belong to the Bakgatla Ba-Makau tribe. The Kgosi for this area has been consulted on the study and is therefore aware of the development proposals. Indeed, the neighbouring property is also owned by the tribe and they have already signed the servitude over to Eskom. In both cases the environmental impacts are similar to the neighbouring properties and there is not likely to be any reason to divert from the current alignment.

The main benefits of the development are the economic related issues, and will have both local and regional influence. Local benefit will be largely indirect, and result from better economic strength in the region, though there are some potential short-term opportunities during the construction phase.

There are seen to be no fatal flaws arising from the environmental impact assessment at this stage in the study. Issues raised by the public, stakeholders and interested parties on the Draft Scoping Report have been considered and addressed in the Impact Tables, though there has been no conflict with respect to the assessment described above.

CONCLUSIONS

The identification of environmental issues, and assessment thereof, has not raised any ‘no-go’ areas or fatal flaws in the proposed development of the line. There is an expected net negative impact on the physical environment, but the potential economic benefits of the development will impact on both the local and regional area.

However, there are many negative impacts associated with the physical and social environments that need to be addressed in the EMP and carefully managed during construction. The EMP requirements are set out in the Impact Tables in Appendix D.

Independent legal review of the study process has given general support for the approach in terms of the law. One area of concern raised was that of the proposed period for public comment on the Draft Scoping Report. As a result the comment period was extended by an

additional week to a 21-day comment period. In the light of the history of this project and that the study area is focussed on the existing registered servitude, this comment period is considered reasonable, and was backed up with personal contact with directly affected landowners.

It is considered that the level of study has been appropriate for the nature, extent and history of the project. It is considered that further detailed specialist studies will not be necessary to support the decision making process. That further detailed studies are recommended, but only for the detailed design phase, is seen to be appropriate for this study and that this approach has been adopted for similar and more extensive Transmission line studies.

A number of recommendations have been made in the report, both in the main text and in the Impact Tables in Appendix D. These are seen to be important in the impact assessment and need to be considered in the drafting of the record of Decision.

ADIS-PHOEBUS 400KV TRANSMISSION LINE

ENVIRONMENTAL IMPACT ASSESSMENT

FINAL SCOPING REPORT

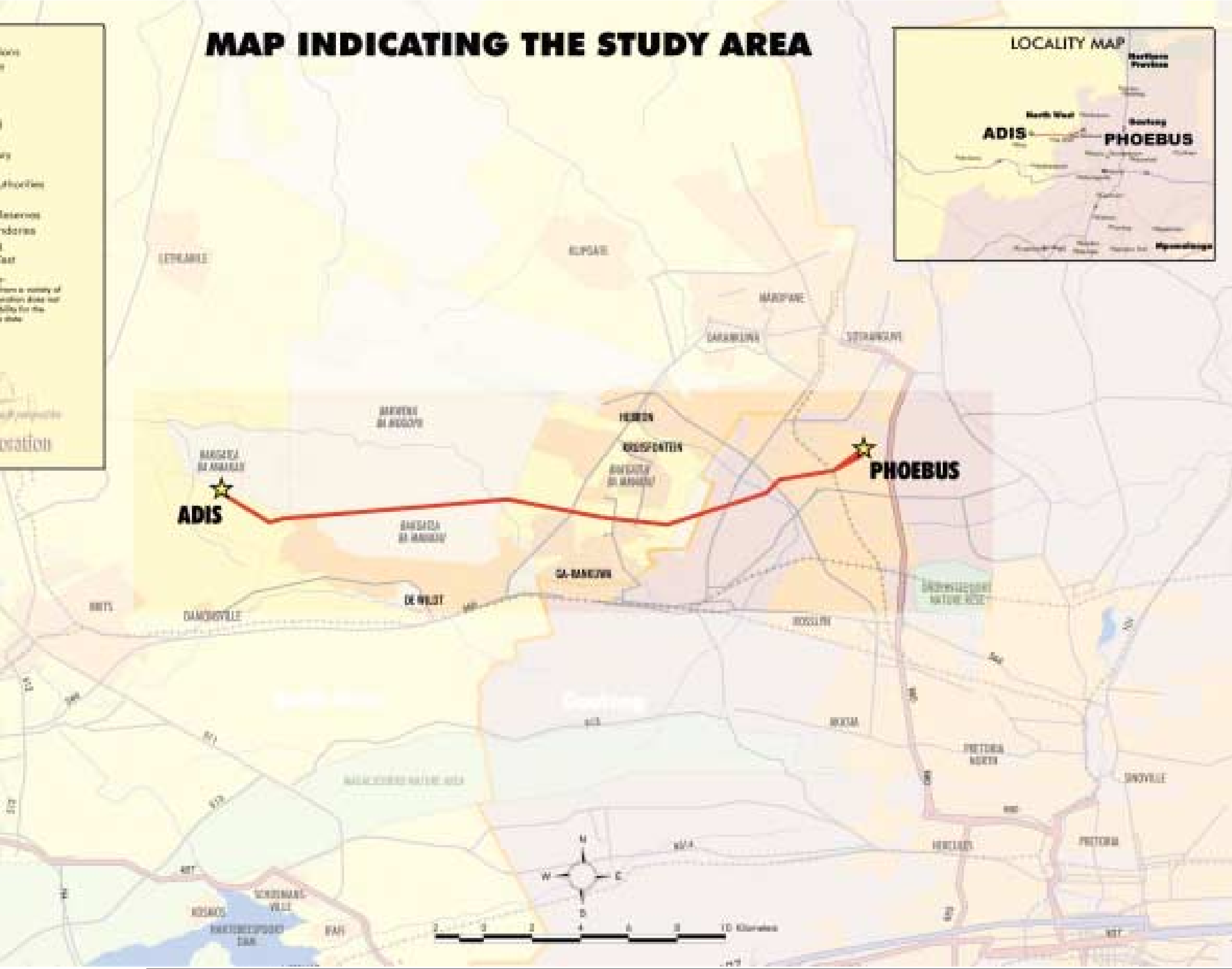
1. INTRODUCTION

Margen Industrial Services cc. has been appointed by Eskom Transmission Division to undertake an Environmental Impact Assessment (EIA) of the proposed development of a new 400kV Transmission line from the proposed site of the Adis Substation, near the town of Brits in the North West Province, to the proposed Phoebus Substation south of Soshanguve in Gauteng (see sketch below and Map 1). The line will form part of the completion of the Bighorn-Adis-Phoebus 400kV Transmission line that extends from Marikana (North West Province) to Shoshanguve.

The Bighorn-Adis–Phoebus Transmission line will complete the 400kV network from the Matimba power station (near Ellisras) to the Apollo Substation just south of Pretoria. It forms part of Eskom Transmission Division's strategic plan for the strengthening of the network in the north-western part of the country. The Adis-Phoebus line formed part of a larger project, the Bighorn-Adis-Phoebus 400kV Transmission line, which was initiated in the late 1990s. An EIA for the whole project was conducted and environmental authorisation was awarded in June 1999 (see copy in Appendix A). Since then the servitude of the preferred route has been negotiated and the Bighorn – Adis section has been constructed. *See Section 3 for further details on the wider network associated with this project*.

Due to the delay in constructing the remaining section, Eskom Transmission Division has agreed with the Department of Environment Affairs and Tourism (DEAT) that a new EIA will be conducted for the Adis – Phoebus section and the Adis Substation. A separate EIA is being undertaken for the Adis Substation in parallel to this study.

Due to the fact that the project is part of a larger development that crosses a provincial boundary, the lead authority is the National office of DEAT, though the relevant provincial office North West DACE, has been involved in all meetings, correspondence and reporting.


MAP INDICATING THE STUDY AREA
LOCALITY MAP
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2. NATURE AND EXTENT OF THE DEVELOPMENT

The proposed development of a new 400kV Transmission line will extend some 26km from the Adis Substation (25° 34' 45" S, 27º 51' 05" E) near Brits, North West Province, to the Phoebus Substation (25° 33' 45" S, 28º 06' 05" E) just south of Soshanguve in Gauteng. A new substation at Adis site will be constructed to connect this line with the existing 400kV Bighorn-Adis line. A separate EIA is being undertaken for the Adis Substation and will run in parallel with this study. There is an existing substation at the Phoebus site, called Hangklip. This will be upgraded to include 400kV capability and named Phoebus. It is also the subject of a separate EIA that is already underway. Environmental authorisation is anticipated in due course.

As indicated above, the options for the servitude have already been signed on the basis of the earlier EIA and environmental authorisation, and the servitude was registered to Eskom. The route of the servitude is shown on the attached plan.

It is planned that the line becomes operational by the end of 2004.

The proposed new line will primarily consist of cross-rope suspension design. This is physically and visually lighter in design, and therefore both cheaper and less visually intrusive. However, the tower has its limitations and bends greater than 3° and steep ground will require that the stronger strain tower and self-supporting designs are used. The following sketches give an indication of the tower types that are likely to be used on the proposed line.

Tower heights vary dependent on terrain and tower spacing such that the minimum clearance requirement is ensured. Typical tower spacing is 450m. The cross-rope suspension tower is more limited in its height range.

The standard servitude width is 55m for 400kV transmission lines. The servitude is required to ensure the safe construction, maintenance and operation of the line, and thereby entitles Eskom Transmission Division certain rights (eg unrestricted access). A servitude width of 130m has been registered between Adis and Phoebus, allowing for two 400kV lines and two 132kV lines. This was part of the strategic planning at the time of the construction of the Bighorn-Adis route.

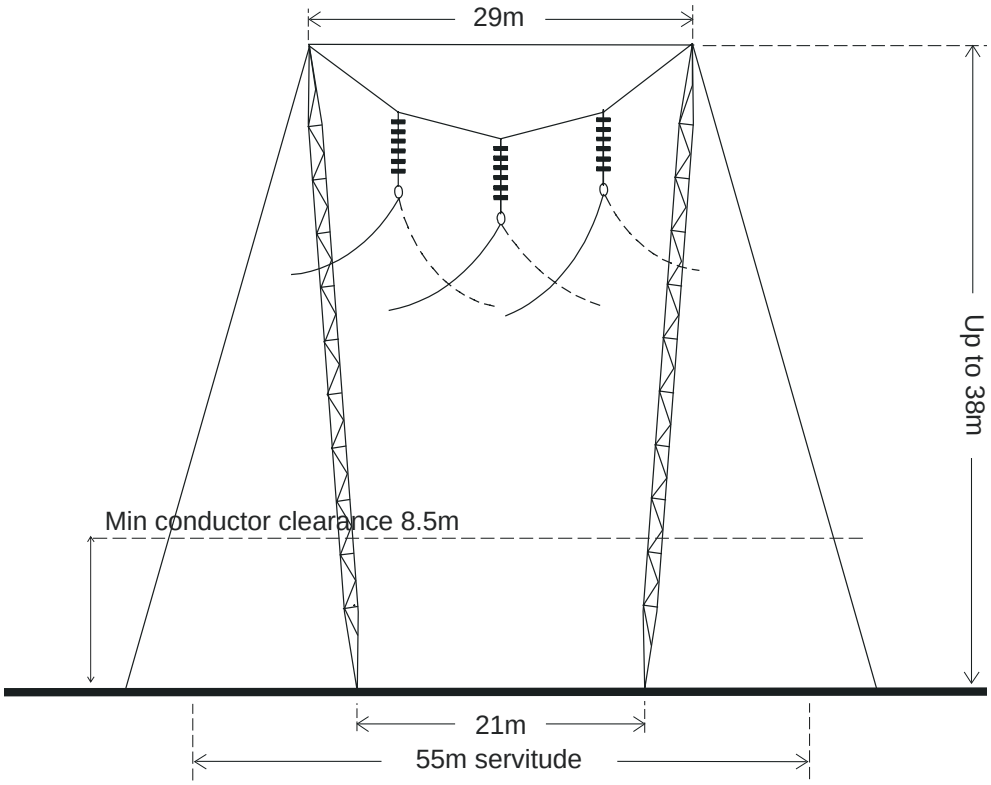


Figure 3a: Cross-rope suspension tower design

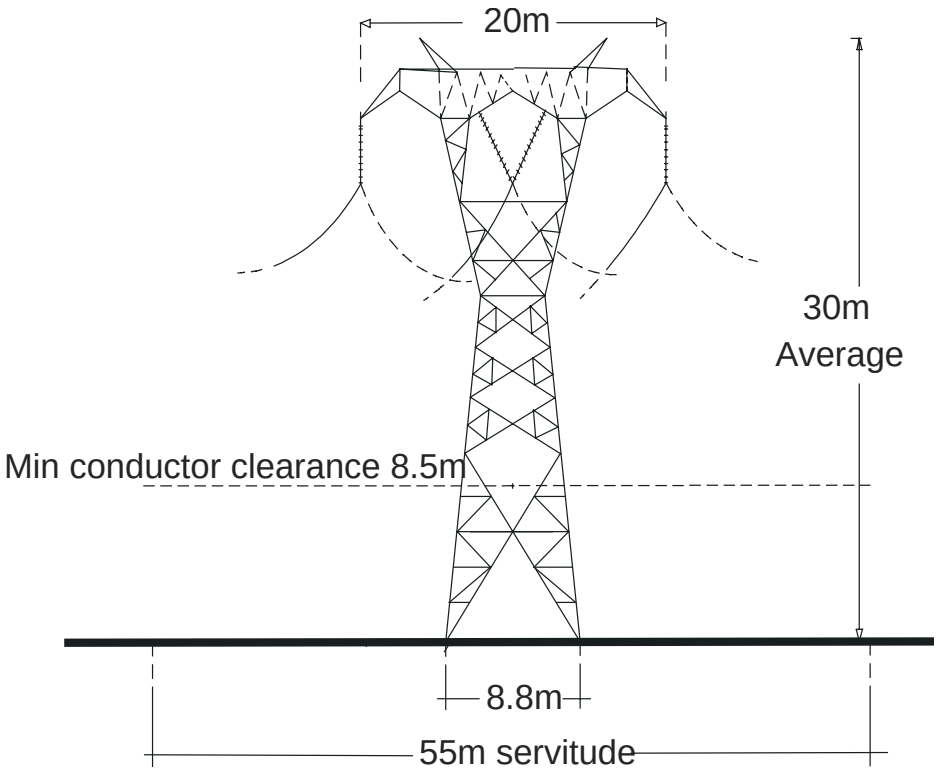


Figure 3b: Self supporting tower design

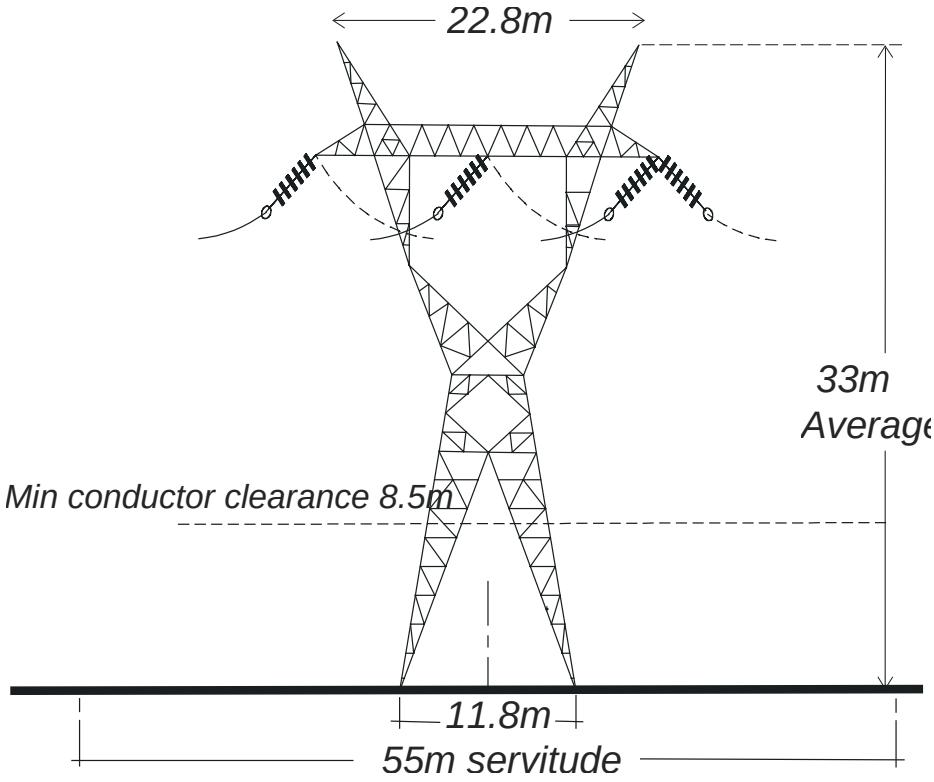
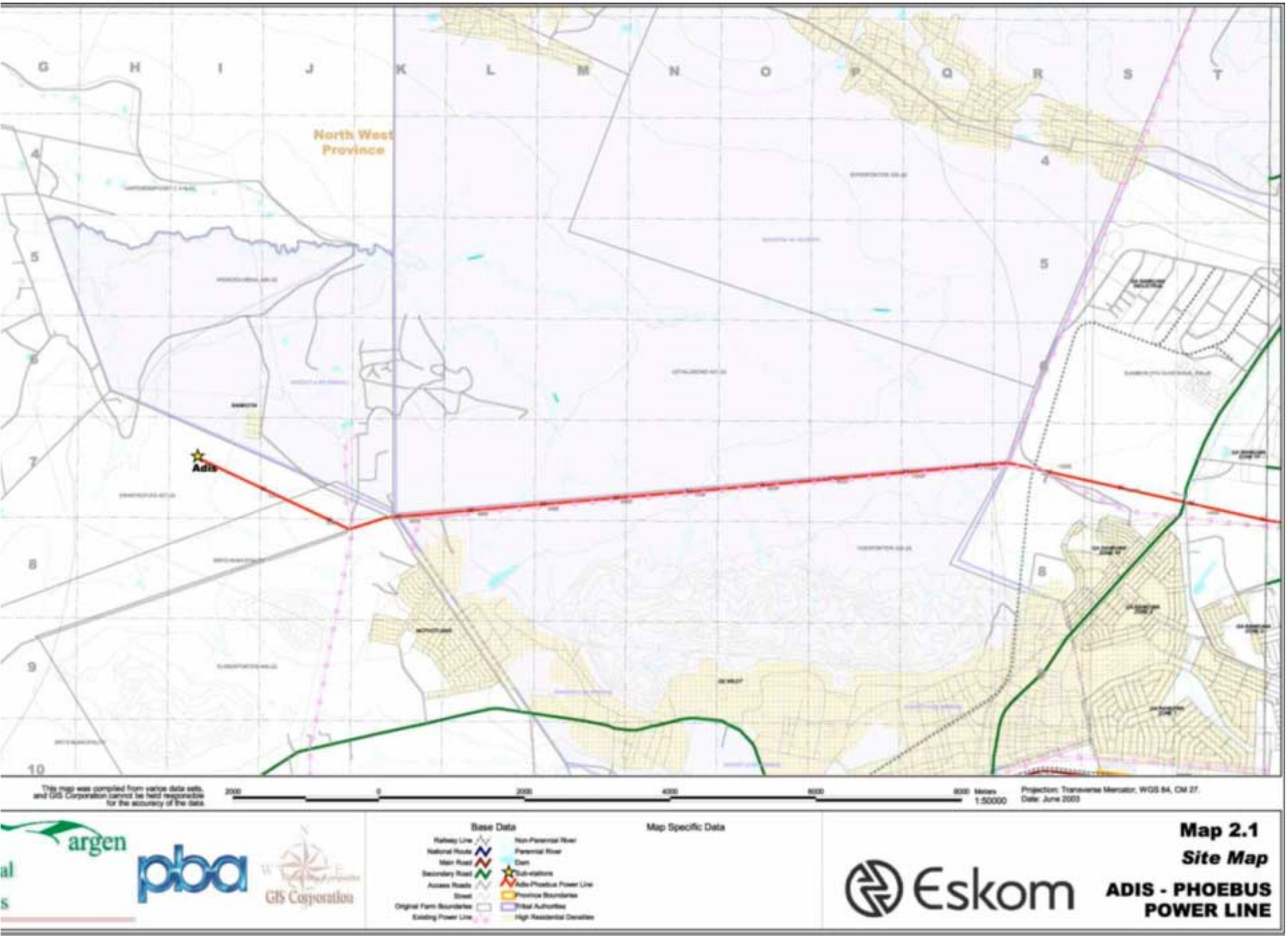


Figure 3c: Strain tower design

A vehicle access route is usually established along the entire length of the servitude (typically along the centre line), though environmentally sensitive areas and difficult terrain (eg steep or very rocky areas) may require alternative access methods (eg on foot or by air in exceptional circumstances) the access roads will be established during the construction phase and are more established by vehicle passage than by grading or blading.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North West Province
Adis
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2000
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8000 Meters
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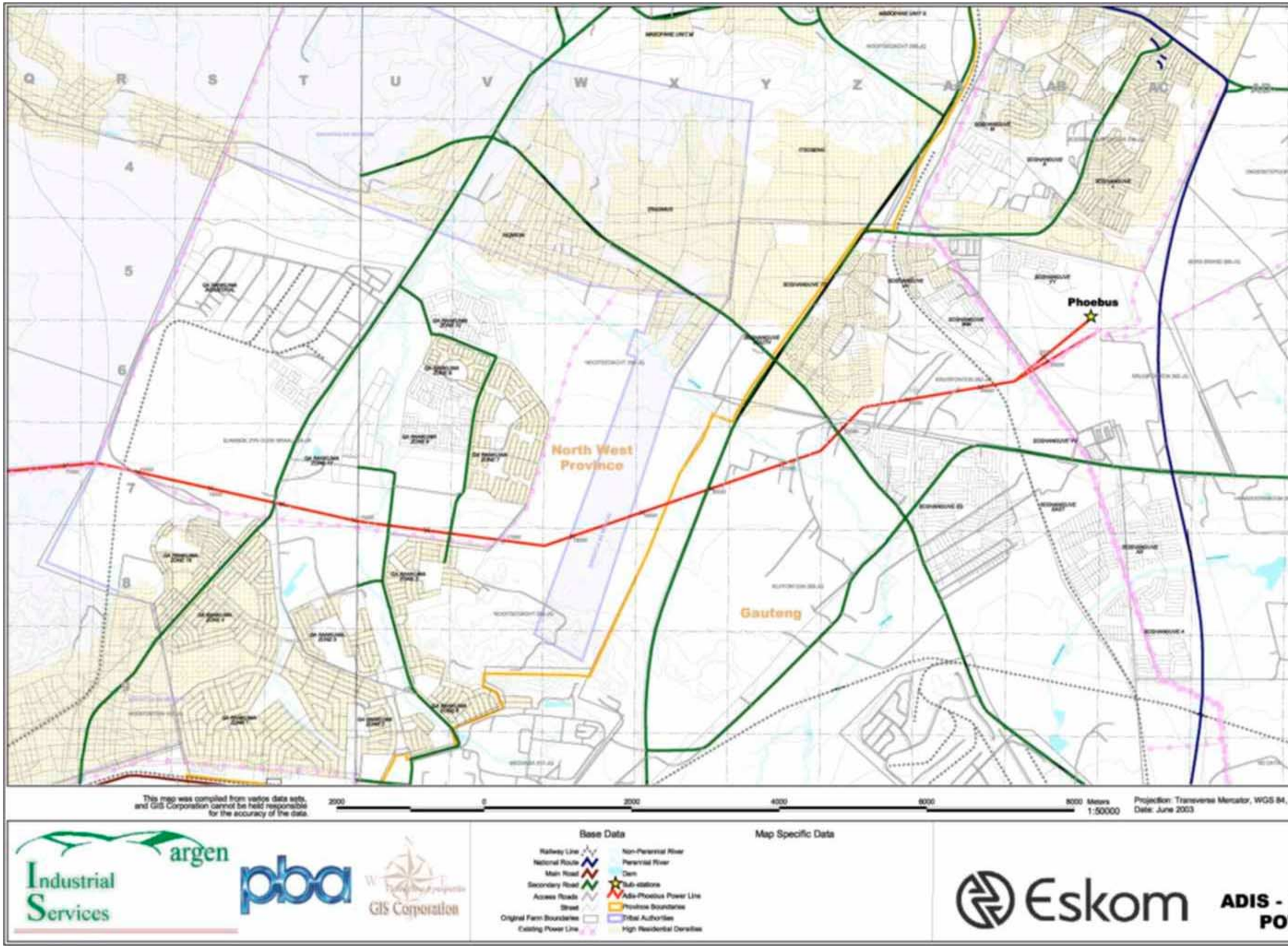
Projection: Transverse Mercator, WGS 84, CM 27.
Date: June 2003
argen
pba
GIS Corporation
Base Data
Railway Line
National Route
Main Road
Secondary Road
Access Roads
Street
Original Farm Boundaries
Existing Power Line
Non-Perennial River
Perennial River
Dam
Sub-stations
Adis-Phoebus Power Line
Provinca Boundaries
Tribal Authorities
High Residential Densities
Map Specific Data
Eskom
Map 2.1
Site Map
ADIS - PHOEBUS POWER LINE


Phoebus
North West Province
Gauteng
This map was compiled from vatios data sets, and GIS Corporation cannot be held responsible for the accuracy of the data.
2000 0 2000 4000 6000 8000 Meters
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Projection: Transverse Mercator, WGS 84,
Date: June 2003
Base Data
Railway Line
National Route
Main Road
Secondary Road
Access Roads
Street
Original Farm Boundaries
Existing Power Line
Non-Perennial River
Perennial River
Dam
Sub-stations
Adis-Phoebus Power Line
Province Boundaries
Tribal Authorities
High Residential Densities
Map Specific Data
Industrial Services
GIS Corporation
Eskom
ADIS -
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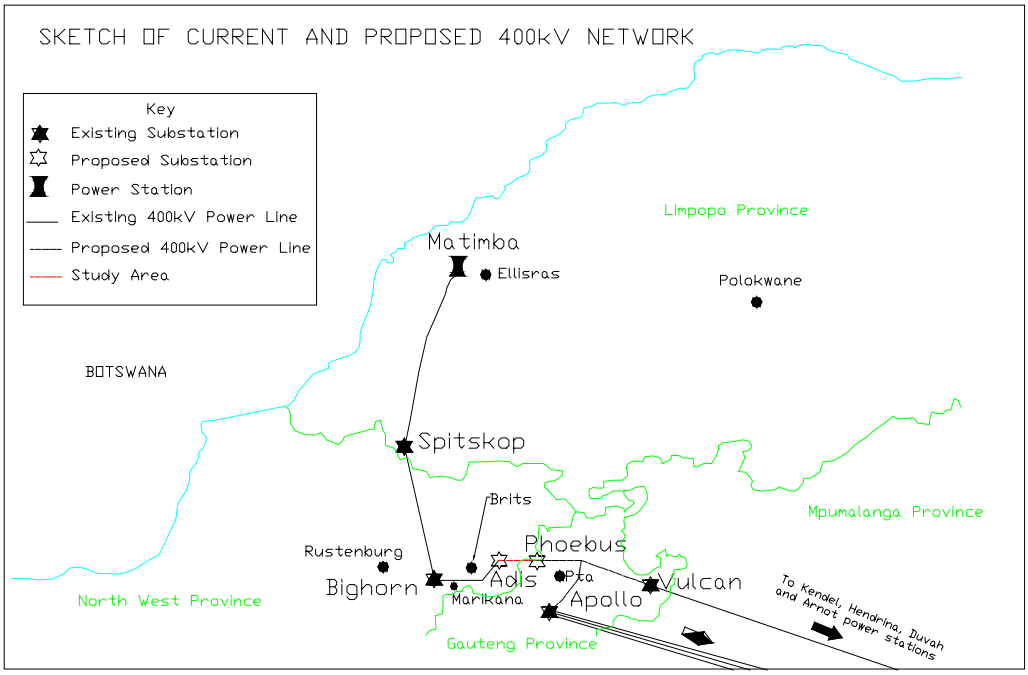
3. PROJECT MOTIVATION

The 400kV Transmission line forms part of the planned strengthening of the north western industrial area of the country. This area currently receives most of its supply from the power station at Matimba, near Ellisras. The strategic plan is to upgrade the network to link up with the 400kV network linking the power stations in Mpumalanga, thereby enhancing the reliability of the supply to the area, and allowing for further growth in demand. To date the line through to Bighorn (near Marikana) and Adis has been completed, but is operating at 88kV to supply local industry. The establishment of the Adis Substation and connecting the line to Phoebus will allow the network to operate at 400kV and improve both reliability and capacity of supply to the Rustenburg-Brits- Pretoria North areas. A connection between Phoebus and Apollo is currently the subject of an environmental impact assessment to complete the supply line from the Mpumalanga power stations.



4. ALTERNATIVES

The proposed alignment of the 400kV network from Bighorn to Apollo was the subject of an earlier EIA and environmental authorisation (see Appendix A). The transmission line servitude and land for the Adis substation have since been secured on that basis. For this reason, it has been proposed that alternatives are not considered in this EIA. On the basis of preliminary discussions with DEAT (National office) Eskom Transmission Division was requested to submit a written motivation for exemption from the consideration of alternatives for the substation and transmission line studies. This motivation is presented in Appendix B.[1]

[1] Consideration for exemption from alternatives is allowed for by Section 28A of the ECA.

Hence there has been no detailed assessment of alternatives as part of this study. However, the environmental consultant has seen given some consideration to the feasibility of alternatives as part of the overall assessment and the following comments refer:

- The previous EIA (Environmental Assessment for the Bighorn Phoebus Line; A.B. De Villiers, 1999) considered three route alternatives;
  - southern and central alignments passing to the south of Brits and Ga-Rankuwa and turning north to the Phoebus site, following a corridor parallel to the R566 to Pretoria,
  - a northern alignment which passes well to the north of Brits (approximately 14km) before turning south to pass just to the west of the Vametco mine. From there it passes to the north of Ga-Rankuwa before joining the Phoebus site.
- The northern alignment was recommended from an environmental perspective and is the alignment being considered in this study. The main reasons were that it offered the least impact on settlements, farming and mineral economic potential. In most other aspects it proved to be similar to the other options, though the northern route provided the higher impact on flora.
- With the construction of the Bighorn-Adis section of the 400kV line, the area of focus for route alternatives is therefore narrowed to the Adis-Phoebus section only.
- Given the nature of the development and demographics of the area, the Scoping study of the Adis Substation has, thus far, concluded that the most environmentally preferable route has been chosen. (*see Adis Substation: Final Scoping Report, June 2003*).
- Due to the registering of the servitude, local communities (especially Akasia municipality) have planned developments around the proposed line.

Without a more detailed assessment of suitable alignments it would appear reasonable that the present alignment is the most suitable in the local environment.

'No-Go' Option

The nature of high voltage electricity transmission is that they are usually for regional and national benefit and therefore planned and developed at a more strategic level. Indeed Eskom Transmission Division has a duty to provide and maintain a national network (the National Grid) of reliable supply to the country. As described in Section 3, the Adis Substation and the Adis-Phoebus 400kV Transmission line projects form part of a regional upgrade and strengthening programme. Without the completion of these projects, the regional network will not be able to function at full capacity.

Furthermore, the expense of constructing the transmission network (between R0.5m and R1m/km of 400kV Transmission line, and approximately R600m for a 400kV substation) means that such infrastructure is not constructed until it is needed. Should the Adis Substation not go ahead and the Adis-Phoebus line not constructed, it is understood that the Transmission network supplying the local area and the region will come under greater stress in the near future, with increasing unreliability. This has potentially significant negative impacts economic growth and sustainability of the area.

Alternative Energy Sources

At present there is considerable debate both nationally and internationally regarding the development and use of alternative (cleaner) energy sources. There are a number of pilot projects underway that may prove that such alternatives can be implemented, but at the time of writing this document there was no clear programme to the implementation and roll-out of appropriate alternatives that will meet the needs of the region and area under consideration.

It is also important to point out that this proposed development is about electricity transmission and not electricity generation. It will reinforce a network that will transmit electricity from available power sources, including any future alternative energy sources. Hence, it is not intended to give further attention to alternative energy sources as a feasible alternative to these transmission infrastructure projects.

5. STUDY PROCESS

Due to the unique nature of the history of this project, a shortened EIA study has been adopted after consultation with the authorities. The key factors influencing this approach are:

- An EIA for the Bighorn-Adis-Phoebus route was done in the late 1990s.
- Environmental authorisation (see Appendix A) was awarded for the project in 1999.
- Part of that project has been built, i.e. the Bighorn-Adis section on the preferred alignment.
- A servitude has already been registered with all the landowners along the preferred route between Adis and Phoebus.
- The site for Adis substation has been selected and geotechnically approved. The final negotiations for the site are underway with Brits Municipality.

There is now considerable experience and understanding of the benefits, impacts and mitigation of transmission infrastructure on the environment. A comprehensive list of environmental issues was drawn up at an early stage in the EIA, and the specialist studies streamlined, making it possible to shorten the EIA study process. This has been reviewed during the study process, and in particular during the public participation process. Additional issues have been identified by stakeholders and these have been incorporated into the Final Scoping Report.

It was also proposed that, due to the relatively short length of the line and the history of involvement with directly affected landowners, it would be possible to shorten the consultation period by engaging key stakeholders and interested landowners on a ‘one-on-one’ basis (as opposed to public meetings). However, during the consultation process, most of the key stakeholders agreed to a combined meeting and this was held as described in Section 7. The remaining stakeholders were met individually.

It was recognised that the condensed EIA study timeframe needed to be supported by the authorities and I&APs. In support of this an independent environmental lawyer was appointed to review the study process. This review is presented in Appendix E, and on the basis of concerns regarding the consultation period it has been decided to extend the public review period to 21 days (from the original 14 days). Further, however, the proposed EIA process (see Table 1) is

seen to comply with the regulatory requirements and NEMA, and the process is considered reasonable and the target date achievable. No objections to the study process were received.

Table 1: Proposed Project Time-Line

Date	Activity
15 April	Contract award
16 April	Pre-application meeting with DEAT (National)
30 April	Submission of Application and Plan of Study for Scoping
6 May	Site visit with authorities and study team (including specialists). Discussion on planning and construction stages of the substation. Discussion of generic issues in context of local environment.
6 May	Specialist integration of issues
12 -15 May	Issue of draft Scoping Report to public and authorities
16 May to 6 June	14 day comment period. 'One-on-one' meetings with key stakeholders and interested landowners.
9 June	Collation of comments
12 June	Issue of Final Scoping Report

6. ASSUMPTIONS

There are several assumptions on which this study approach has been based. These are detailed below:

- All information provided by Eskom Transmission Division and I&APs to the Study Team was correct and valid at the time it was provided.
- It is not possible to involve all Interested and Affected Parties themselves. Rather, every effort has been made to involve as many broad base representatives of the stakeholders in the area. An assumption was therefore made that the representatives with whom there has been communication, are acting on behalf of the parties that they are representing.

7. PUBLIC INVOLVEMENT PROGRAMME

7.1. INTRODUCTION

This section is meant to give an account of the programme and outcome of activities undertaken to make sure that the public was sufficiently involved in scoping the possible impacts of the proposed projects. It is believed that this will allow the Authority to assess the process followed in terms of its effectiveness, appropriateness and transparency, and in terms of environmental legislation.

The aim of the PIP was to establish efficient communication channels that would allow all relevant Interested and Affected Parties (I&APs) the opportunity to participate meaningfully and timeously in the time frames in which Scoping was conducted. Considering the increasing importance that is given to stakeholder engagement, it was considered prudent to appoint an independent legal advisor to the team to serve as an internal reviewer and to ensure public accountability. Importantly, the Authorities and the environmental lawyer, Ms Lisa Hopkinson, approved and supported the adopted approach. To ensure due process in the public domain,

Ms Hopkinson has been consulted and has provided written review of the process adopted. This review is contained in Appendix E.

7.2. PRINCIPLES OF PUBLIC PARTICIPATION

As the PIP is an integral part of Integrated Environmental Management (IEM), the same IEM principles should apply. These principles, as listed by Department of Environmental Affairs and Tourism (DEAT) and that are relevant to the public involvement have been adopted in the PIP:

- Meaningful and timeous participation of I&APs.
- Focus on important issues.
- Due consideration of alternatives.
- Accountability for information used for decision-making.
- Dispute/conflict resolution will be handled as prescribe by relevant legislation.
- Application of "due process" particularly with regard to public participation in environmental governance as provided for in the Constitution.
- Inclusivity: the needs, interests and values of I&APs must be considered in the decision-making process.

The condensed time-line places greater emphasis on integration of the above principles in the proposed approach.

7.3. APPROACH AND METHODOLOGY

In adopting the abovementioned IEM principles, and taking into account the tight time frames, the approach and methodology that were developed for the PIP are discussed below.

The stakeholder engagement process was focused and the timing crucial. Although there are two separate applications for the substation and Transmission line, the stakeholder engagement process was optimised in that it dealt with both projects simultaneously in the public domain, without compromising the level of consultation on either project. However, the approaches and activities listed below are applicable, mainly, to the Transmission line.

The most important principle on which the approach and methodology was based, is the fact that servitude options have been signed for four Transmission lines, and the details of the landowners are available. As such, there was an opportunity to scale down on broader consultation and to focus on key stakeholders in the study area. However, taking cognisance of the IEM principles, this study was advertised in the local media, affording the public in the study area the opportunity to comment on the Draft Scoping Report.[2]

As the Public Participation Consultant, **pbai (SA)** was both proactive and reactive in its approach and its communication function focused on the activities contained in Table 2 that provides an overview of the proposed approach to engage stakeholder groupings. The approach to directly affected landowners is of particular importance. The proposed approach was predicated on the fact that Eskom Transmission Division has signed servitude options with most landowners along the route, on which an ROD was issued. Thus, this group of

stakeholders is the main focus of the public consultation process, but not to the exclusion of other I&APs.

The I&AP database in Appendix C reflects key stakeholders identified during scoping, how they were consulted and what response was received from them.

7.4. PUBLIC PARTICIPATION ACTIVITIES

pbai(SA) and **Margen Industrial Services** adopted a robust communication process to ensure that even though the process was being conducted over a short period, the interest and concerns of the stakeholders was not compromised. The communication function focused on the following activities:

- Meetings
- Services
- Products

7.4.1. Meetings

The original intention was to conduct one-on-one meetings with key stakeholders. After contacting some of the stakeholders, it was found that the general sentiment was that a combined workshop would be acceptable. A date and time was set which suited the majority of the key stakeholders. This workshop was held on the 23 May 2003 at the old Acacia Municipal offices. The main presentations are briefly described below:

- Mr. G. M. Mahlangu (assistant project manager) explained the purpose of the meeting and the study team of specialist appointed on the basis of their knowledge of the area.
- Mr. John Geeringh from Eskom Transmission Division gave a presentation on the need for these two projects.
- Activities relating to the projects, which might have impacts on the environment, were thoroughly explained by Ms C. Streaton (Eskom Transmission Division).
- Mr. S. Dunsmore (project manager) gave an overview of the approach adopted for EIAs for the two projects. He also discussed the content of the Draft Scoping Report (DSR).
- The process of PIP was presented by Ms Karin Bowler who later facilitated the discussion in which all people in attendance participated by way of asking for more clarification, raising issues and concerns or made recommendations.
- Minutes of the meeting are provided in Appendix C.

Mr. Mahlangu held a separate meeting with liaison officers of the affected ward councils and presented information in the form of extracts from the DSR. Minutes of the meeting are provided in Appendix C

Families residing in the servitude near Vametco Mine were also consulted and met at their places of residence individually. Mr. Mahlangu twice visited Mr. Mlambo's, one of the residents

[2] Copies of the adverts and press releases are included in Appendix C

in the servitude, on both occasions he was not home and documents for his attention were left with neighbours. No response has since been received from Mr. Mlambo.

Apart from formal meetings, the relevant municipalities were consulted extensively by the social scientist regarding issues in the area, and this information was also fed into the PIP.

7.4.2. Telephonic discussions

The projects were discussed with Kgosi S. P. Motsepe of the Bakgatla BaMakau and he indicated that development in the area was welcomed. Background Information Documents were hand delivered at the Bakgatla BaMakau Tribal Authority offices for the Kgosi to study and present to the tribal council. Kgosi Motsepe indicated that he was not going to be in position to comment on the projects since he was attending other official matters in Mmabatho until the 20 June 2003. It is important to note that the relevant officials from Eskom will be liaising with all affected parties during the final pegging of the route.

7.4.3. Stakeholders for later consultation

Situated in the Rankotia area, the Rankotia Cooperative is understood, owns small portions of land in the area near the proposed substation and Transmission line. The advice given by people of the area was that the chairperson of the cooperative was a Mr. Adolph Modisele whose contacts might be known by Kgosi Motsepe. Attempts to contact the cooperative were not successful in the study timeframe. However, this group is viewed as interested parties within the community as opposed to the landowners in the servitude.

Mr. Mahlangu visited the offices and compounds of the Department of Water Affairs and Forestry (DWAF) This department is responsible for the maintenance and operation of the irrigation canals to the west of the substation. The responsible official (Mr. George Maselo) was understood to be on leave. Various attempts to call Mr Maselo proved unsuccessful.

As with the Cooperative, the development of neither the substation or the line will impact on the canal and associated land, though this report makes specific recommendations that access to the substation should not cross the canal, but should be either to the south or east of the substation.

7.4.4. Services

A comprehensive database has been maintained for the public participation process, and this is presented in Appendix C. All stakeholder interaction, comments, feedback, etc., as well as distribution of information is recorded therein.

7.4.5. Products

- The Draft Scoping Report was placed at Tshwane Metro Council offices; Akasia Municipal offices; Akasia Municipality; Madibeng (Brits) Municipality; Karen Park Library, Brits library and Soshanguve library.
- Background Information Documents were distributed at key stakeholder meeting and at points where the DSRs were placed.

- Advertisements and press releases announcing the project was placed in the newspapers and languages as indicated in Appendix C.
- Site notices were placed at different locations around Adis substation (Written in English and SeTswana) (Appendix C).
- Extracts from DSR were given to liaison officers; families residing in the servitude and Kgosi Motsepe.
- The Final Scoping Report was placed at the Madibengl, Karen Park and Soshanguve main libraries
- Advertisements announcing the availability of the Final Scoping Report for public perusal was disseminated to regional and local media (Appendix c)

7.5. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Observations made from responses and questions asked is that the generic issues table in the BID and DSR provided stakeholders with a level of comfort that the Study Team had a good understanding of the issues associated with Transmission lines and that there were only a few study area specific issues that needed to be added. These included:

- Conductor theft has been a problem on 132kV lines in recent past. Though this has not been recorded for 400kV lines, it was suggested that Eskom Transmission Division needed to look into this.
- Locations of graves sites, though none of these were seen to be within the servitude.
- Dwellings in the servitude near the Vametco Mine and north of GaRankuwa Zone 16.
- Development proposals for the Soshanguve area.
- Location of construction camps
- Prostitution is in existence in the study area and it is not expected to increase as a result of the construction of the substation or line.
- Ward councillors need to be involved in any relocation of residents in the servitude.
- Traffic disruptions during construction
- Expansion of GaRankuwa cemetery
- Some uncertainty with the new servitude in relation to distribution lines near Phoebus.
- The wetland near the Vametco mine is seen to be as a result of the outflow from the sewage treatment works in Mothutlong.
- Use of the private roads for site access and construction will need the permission of the owners. These include those owned by Vametco near the Adis substation, and those owned by the granite mines along the northern side of the Swartkoppies hills.
- Consideration to be given to potential impact of flooding.
- Impact of the new line on the bird populations attracted to the waste dump site.
- Avoidance of the ancestral monument in Rankotia.

7.6. ANALYSIS OF THE PUBLIC PARTICIPATION PROGRAMME

Particular effort was made in this study to contact all the directly affected landowners and key stakeholders associated with both the development of the Adis substation and the Adis-Phoebus 400kV Transmission line. This has included a combination of advertising, registered letters, direct telephonic contact, invitation to the key stakeholder workshop and personal meetings with stakeholders who could not attend the workshop (eg the Kgosi of the Bakgatla

Ba-Makau). The database for the process highlights the extent of contact made in this regard. Meaningful participation was therefore achieved at a number of levels.

The key stakeholder workshop was arranged after discussion with many of the stakeholders who suggested that a single meeting would be better than a series of one-on-one meetings with the consultants. The date and time of the workshop was selected to suit the majority of stakeholders, most of whom confirmed their attendance in advance. A breakdown of invitees and attendance is presented in Appendix C. A number of stakeholders who had confirmed did not arrive at the workshop, and some sent apologies after the event. While important input to the study was gained from the workshop, concern was expressed in terms of some key stakeholders, such as the environmental sector and the Madibeng municipality that did not attend.

In mitigation of the low attendance, minutes of the workshop were sent to all those originally invited with the request that comment on either the minutes or the DSRs could still be sent to the consultant. Very few responses to this were received. It is concluded that the stakeholders did not have any particular concerns regarding the proposed developments, and that the history of the projects and servitude registration has resolved many of the issues that may have previously arisen.

However, there is also the concern that many stakeholders, especially local authorities, do not acknowledge the importance of their role as representatives of wider communities and therefore the importance of their responsibilities in participating in the planning of major developments. Despite direct invitation, it is not uncommon for these key stakeholders to remain remote from the EIA process.

Overall, the key stakeholders who attended the key stakeholder meeting and all other I&APs that were consulted participated meaningfully in the study. The inclusion of generic issues relating to the Transmission line in the BID and later the explanation thereof guided their understanding of the EIA process and provided an important platform in their assessment of issues specific to the study area. The presence of Eskom Transmission Division officials at these meetings to explain the need for the projects and the activities related to them also helped I&APs to better understand the projects and their possible impacts, both positive and negative.

Though not all I&AP and /or Landowners have been contacted during the scoping process the response to the generic issues table by those who were consulted give some high level of confidence that most issues have been identified during the scoping phase.

7.7. CONCLUDING REMARKS

The fact that the servitude for the Transmission line has been negotiated and related availability of data base for Landowners allowed the process to be conducted at a relatively fast pace. After the reconnaissance study of the area and conducting a site visit with Authorities, it was observed that the servitude had not been settled on, instead only a few families resided in the servitude and thus the PIP was more about informing the public about the project that already had a servitude.

The slight concern of the Ward Council liaison officers about what will happen if some families are found to be residing in the servitude in the area of Soshanguve and GaRankuwa it is believed that the problem will be solved since both the proponent and the council expressed willingness to act as humanely as is possible and take the plight of the poor people into account when resolving the problem.

Table 2: Public Consultation Process

Stakeholder Group	Discussion	Description of Activity
Activities prior to the issue of the Draft Scoping Report		
Government departments	As key stakeholders in the environmental authorisation process this group has been involved since the outset of the study. As the project crosses two provincial boundaries, National DEAT is the authorising agent, but the provincial authorities were also consulted.	After a pre-application meeting was held with DEAT, a site visit was arranged and attended by the following provincial departments: ➔ DEAT ➔ Gauteng DACEL (transmission line study only) ➔ DACE NW A copy of the attendance register is contained in Appendix C.
Landowners	Servitudes have been registered and copies the legal documents have been made available to the study team. These documents stipulate the contact details of the responsible official who should receive all relevant correspondence. A list corresponding to the study area map was drawn up and an audit done to determine any gaps in information. These gaps were subsequently filled and are reflected in Maps 4.1 & 4.2 and the list in Appendix C.	Registered letters containing copies of the original servitude option and corresponding maps, and Background Information Documents (BIDS) have been sent to all landowners on the list in Appendix C.
Key Stakeholders: Municipalities Tribal Authority	In addition to being landowners, municipalities play an important role from a planning perspective. Key representatives were identified and these included Tshwane Municipality which incorporates the Akasia municipal structures. Importantly, two Akasia regional offices were consulted with directly: ➔ Region 1 covers Shoshanguve, Winterveld and Mabopane. ➔ Region 2 covers Akasia, Pretoria North and Garankuwa There is one Tribal Authority in the study area.	The appropriate individuals have been identified, these officials include: ➔ Planning and environmental health department officials ➔ Chief Executive officers. The Kgosi responsible for the Bakgatla-BaMakau Tribal authority was identified.
Interested Parties	As options for servitudes have already been signed with directly affected landowners, additional consultation had a different focus and required a different approach. Although resources were focused on key stakeholder groupings and directly affected landowners, interested parties were not excluded from the study. In addition to the broader public, the following representative groups were identified and invited to a Key Stakeholder Workshop: ➔ The Business Council for Sustainable Development ➔ WESSA.	Various channels through which issues and concerns can be registered were created. This included advertising the study in the local media Beeld Pretoria, Pretoria News, Sowetan, Brits Pos, Pretoria Record North. In addition, the following documents were compiled: ➔ Draft press releases. ➔ Background information documents were made available at municipal offices, community centres and local libraries.
Activities related to the issue of the Final Scoping Report		

Stakeholder Group	Discussion	Description of Activity
Government departments	The following departments are important in terms of this study, they were identified during the Scoping Phase: ➔ The Dept Mineral & Energy Affairs ➔ South African Heritage Resources Agency (SAHRA)	A Key Stakeholder Workshop was held on the 23 May 2003, to which these officials were invited. The proceedings were sent to all invited parties. The workshop encompassed the following activities: ➔ The BID and Summary Documents were handed to the officials that attended the Key Stakeholder Workshop. ➔ The focus group discussions included a presentation on: ➔ Activities associated with the construction of Transmission Lines & substations; ➔ The Draft Scoping Report which includes issues and impacts
Landowners	It is important that the landowners have the opportunity to comment on the Draft Scoping and to raise environmental issues that may need to be further assessed and/or that need to be taken into consideration during the construction phase.	A Key Stakeholder Workshop was held on the 23 May 2003 and the proceedings sent to all invited parties. Landowners were telephonically contacted and invited to the workshop. Where stakeholders did not wish to make use of this opportunity, they were invited to submit issues in writing by fax. Many of these landowners are Municipalities, including Madibeng and Tshwane. These municipalities wereconsulted to obtain further information regarding the study area, particularly in terms of planned developments. (See discussion on Municipalities).
Key Stakeholders: Municipalities	It is important that municipal officials have the opportunity to comment on the Draft Scoping and to raise environmental issues that may need to be further assessed and/or that need to be taken into consideration during the construction phase. The discussions that took place focused on proposed developments and other infrastructure and social issues.	A Key Stakeholder Workshop was held on the 23 May 2003 and the proceedings sent to all invited parties. The BID and Summary Documents were handed to the officials that attended the workshop. The workshop discussions included a presentation on: ➔ Activities associated with the construction of Transmission Lines & substations; ➔ The Draft Scoping Report which included issues and impacts.
Key Stakeholders: Tribal Authorities	The Kgosi responsible for the Bakgatla-BaMakau Tribal authority could bring an understanding of the issues related to his area, to the study.	A telephonic meeting was held with the Kgosi and he stated that the development was welcome. A copy of the DSR was placed at the Tribal Offices for his information and comment, but he stated he was not is a position to comment on the DRS as he had other commitments until the 20 June.
Vametco Minerals Corporation	The proposed 400kV Transmission Line passes to the north of the mine. As immediate neighbours it was important to consult with the mine, a key stakeholder. Contact was made with the relevant representative.	A Key Stakeholder Workshop was held on the 23 May 2003 and the proceedings sent to all invited parties. The Chief Engineer attended the workshop where the following were presented:

Stakeholder Group	Discussion	Description of Activity
(previously Ucar Vanadium Mine)		➔ Activities associated with the construction of Transmission Lines & substations; ➔ The Draft Scoping Report which included issues and impacts
Interested Parties	In addition to the broader public in the study area, the following representative groups were contacted for additional comment on the Draft Scoping Report: ➔ The Business Council for Sustainable Development ➔ WESSA,	A Key Stakeholder Workshop was held on the 23 May 2003 and the proceedings sent to all invited parties. The following documents were disseminated in the public domain and to specified I&APs ➔ Draft press releases. ➔ Background information documents were made available at municipal offices, community centres and local libraries. ➔ Copies of the Draft Scoping Report were made available.
This final scoping report was distributed to the Madibeng, Karen Park and Soshanguve main libraries for public perusal.		

8. ENVIRONMENTAL IMPACT ASSESSMENT

This section is divided into three main sections. A brief overview of the site area and wider environment is given, though greater detail is provided in the specialist reports and the Impact Tables. The Impact Tables form the core of the assessment and deal with each issue individually. Finally there is a summary of the overall assessment.

The overall assessment and Impact tables have been prepared with the assistance of specialists in certain fields that are considered to be of particular importance to the study. These include:

Specialist	Role	Relevant expertise
Dr Julius Pistorius	Specialist Archaeologist	Wide knowledge of the area and particular involvement in the previous EIA for the project. Recommended by Eskom Transmission Division.
Prof George Bredenkamp & Dr Leslie Brown	Specialist botanist and ecologist.	Extensive experience in botanical surveys and EIA's. Wide knowledge of the area.
Ms Anita Bron	Social scientist	Wide experience in social studies and impact assessments.
Dr Chris van Rooyen	Avifauna specialist	Specialist in Transmission line impacts on birds. Recommended by Eskom Transmission Division.

The specialist reports are presented in Appendices F to H (Archaeological, Social and Avifauna studies respectively, the ecology study has been incorporated into the main text.).

8.1. OVERVIEW OF THE SITE AREA

8.1.1. Topography

The route of the servitude is dominated by flat plains along much of the distance from Adis, though the last 8km to Phoebus rises steadily towards Soshanguve. The western half of the study area is characterised by the granite outcrops and hills that form the Swartkoppies range along Ga-Rankuwa. These hills are mined extensively along the range. The eastern sections are more undulating thornveld. (see Maps 2.1 and 2.2)

8.1.2. Landuse and Administrative Structures

The section of the servitude in North West Province falls within the jurisdiction of the Local Municipality of Madibeng (NW 372). It is understood that Madibeng Local Municipality owns the Adis site and supports the development. (Map 2.1)

This municipality covers an area of approximately 3 814 km². The Local Municipality consists of parts of the former Brits TLC, the former Hartebeespoort TLC, the former Skeerpoort TRC, and the former Eastern District Council.

For the servitude in Gauteng, the Tshwane Metropolitan Municipality consists of the former Pretoria Town Council, Centurion Town Council, the Northern Pretoria Metropolitan Sub-Structure, Eastern District Council Area, Pienaars River TRC, Crocodile River TRC, and Northern Pretoria Metropolitan Sub-Structure. The study area is now under the jurisdiction of The City of Tswane, Region 1.

Much of the land within the servitude is currently used for agriculture, mainly grazing, though there are sections where cultivation is taking place, most of it is at subsistence level. However, landuse adjacent to the servitude varies along the route, with more formal and informal urban settlements along the eastern sections, and more open veld and grazing land along the western sections. Mining is also a significant landuse along the northern boundary of the servitude in the western sections. Other uses include a waste disposal landfill site just north of Ga-Rankuwa Zone 16 (point 5 on Map 5.1), and various infrastructure including roads and electricity distribution lines. (see Maps 5.1 and 5.2).

Various proposals for land development are also proposed, including low cost housing, new road developments (PWV 6 and NW 6 routes). These are also indicated in Maps 5.1 and 5.2.

8.1.3. Soils

The soils along the servitude are mainly deep vertic and melanic soils, dark in colour and with a high clay content making the soils prone to expansion and heave and creating difficult working conditions in wet weather. (see Maps 6.1 and 6.2)

8.1.4. Drainage & Erosion

Small, seasonal drainage routes cross the route in places. (see Maps 2.1 and 2.2) These are not seen as any particular threat to the line, but care should be taken in preventing disturbance to the watercourses during construction for fear of destabilising their banks in the process. Given the generally flat nature of the topography and the soils described above, neither drainage nor erosion are seen to be a significant threat though the slightly steeper slopes towards Phoebus will need more attention and monitoring.

There is one particular, but small wetland along the route (see Point (5) on Map 6.1). Though it is disturbed by a road crossing and suffers trampling from cattle, this is seen to be ecologically significant in the local context and should receive particular protection during the construction process.

There was no notable erosion along the route.

8.1.5. Infrastructure

The route crosses many local roads, electricity distribution lines and telephone lines. It is not expected that there will be any disturbance or disruption to these services during the

construction or operation of the new line. There is however a small 33/11kV substation apparently in the servitude at Mothotlung (ref L7 on Map 2.1). This is part of the local distribution network and may need to be moved out of the servitude.

The new line has only one rail crossing (at AA6 Map 2.2), but as the 400kV Transmission line will cross the railway line and not run parallel to it for any distance, there should be no interference with the rail communications system.

It is proposed that major arterial, NW6, be build about parallel to the servitude, to connect Brits with Ga Rankuwa. It is also envisioned that a freeway, the PWV6, pass through this area – east of Mothotlung. The proposed construction of these roads is unknown.

A schedule of property and infrastructure crossings is presented with the maps before Appendix A.

8.1.6. Fauna and Flora

The area comprises of a higher-lying secondary grassland on shallow loamy to sandy soils in the east at Phoebus Power Station while the largest section is situated on flat lower-lying alluvial soils with varying clay content in the west.

The vegetation in the servitude area is generally disturbed with some weedy species present. Though relatively natural sections are found along the servitude area it is locally encroached due to farming practices.

The vegetation on the rocky Norite hills in the south is considered as sensitive though large sections have been destroyed due to current and previous mining activities.

All of the natural areas are accessible and utilised (footpaths, grazing, planting of maize etc.) by the local residents resulting in some degree of disturbance throughout.

The following broad habitat types were identified for the study area:

i. Open grassland

This secondary grassland is situated on shallow red sandy soils at Phoebus Substation site and is dominated by the grasses *Schizachyrium sanguineum, Cymbopogon plurinodis, Themeda triandra* and *Aristida transvaalensis*.

ii. **Disturbed *Acacia tortilis* woodland**

This woodland is found in the servitude section in Soshanguve. The vegetation is heavily disturbed due to human impact and characterised by the woody species *Acacia tortilis* and *Rhus lancea*.

iii. **Dense *Acacia tortilis* woodland**

This dense woodland is similar in composition than the previous though less influenced by human activities. Due to grazing the area is encroached and forms dense bushes in certain localities.

iv. **Broad-leaved woodland**

This section is characterised by the presence of various broad-leaved woody species such as *Ziziphus mucronata, Ehretia rigida, Combretum molle* and *Rhus leptodictya*. The area is small, degraded and situated next to a dumping site.

v. **Norite Hills vegetation**

The Norite hills vegetation is situated on the foot slopes and steep northern slopes of the Norite koppies south of the servitude area. These rocky ridges and hills are considered as sensitive ecosystems with various archaeological sites present. It is expected that sensitive species could occur here.

vi. **Mixed *Acacia* species woodland**

This woodland comprises a mixture of *Acacia karroo* and *A. nilotica* species occurring mainly in black vertic clay soils in the eastern section opposite the Norite hills vegetation. Due to agricultural and mining activities sections are degraded.

vii. ***Acacia tortilis*** **woodland and old cultivated fields**

This area is situated where the proposed Addis Power station is to be constructed. The area is degraded and comprises old cultivated land with single *Acacia tortilis* species present.

The presence of indigenous fauna is considered to be limited to small mammals (rats, ground squirrels, mice, etc.). No larger mammals (small buck, etc.) were seen during the site visit and given the disturbed nature of the area as a whole, very few are expected to remain. Presence of reptiles will be similarly limited, though the granite outcrops scattered along the flatter plain areas along the servitude are locations for higher species diversity. It is expected that all existing species will migrate out of the immediate area of construction, but should return if the veld around the substation is rehabilitated and protected.

As mentioned above the small watercourses, and the small wetland (point (5) on Map 6.1) in particular, will also be locations of higher specie diversity (fauna and flora) and should be protected during the construction phase. However, it is noted that the presence of the wetland is due in part to releases from the sewerage treatment works upstream (to the south) and is therefore not entirely natural to the environment. However, there is little need for the line to interfere with the watercourse and for the purposes of this development it is deemed best left untouched.

See Maps 6.1 and 6.2 for further information

8.1.7. Avifauna

Due to the density of development and landuse in the area, many of the large bird species that are known to be ‘powerline sensitive’ have moved away. Red data species that could occur in the area such as the Secretarybird and the Cape Vulture are considered unlikely to visit the servitude area due to general disturbance. Non Red Data species recorded in the area (Black Eagle, White Stork and Abdim’s Stork) are not likely to be encountered in significant numbers sue to habitat destruction and the incidents of collisions with the Transmission line are

expected to be rare. Furthermore the use of the cross-rope suspension towers make other impacts, such as electrocution, unlikely as the birds are unable to easily perch on the towers.

Scavenging birds, including cattle egret, pied crow and yellow-billed kite, will be attracted to the waste disposal site just north of Ga-Rankuwa Zone 16 (point 5 on Map 5.1). However, these birds have almost no record of collisions or mortality associated with Transmission lines and are considered very agile birds well adapted to the urban environment. The impact of the new line on these birds is expected to be very low.

See Appendix H for a more detailed assessment.

8.1.8. Access

The area is well serviced by a local road network, and access to most of the route is easily gained by public road. The main arterial roads serving the area include the R80 (north-south) near the Phoebus site, the R566 (east-west) linking Brits to Pretoria, and the R511 (north-south) linking Brits to Sandton. There are also many good quality tarred and dirt roads through the study area, and access for construction and operation (maintenance) should be relatively easily achieved. (refer to Maps 2.1 and 2.2)

However, use of residential township roads should be avoided from a safety perspective, and the maintenance of dirt roads (especially during construction) should be provided.

8.1.9. Social and socio-economic

The Madibeng Local Municipality area is characterised by a number of urban areas, although the population is mostly rural. It includes approximately 43 villages and 9000 farm portions. The total population in this local municipality is estimated to be approximately 419 451 people, of which more than 90% is black. The black population is particularly poor. Due to poverty, unemployment and migration, high percentages of rural populations are accommodated in informal houses/settlements. It is anticipated that unemployment might become a major threat in the next 5-10 years, because of a potentially high percentage of young people who will enter the employment market.

Migration patterns can be attributed to the dominant activities in the area. These are agricultural, mining and manufacturing. The economy is dominated by the mining industry, of which only granite benefits the local community. The average economic growth was about 6% during 1996-2000. A strong economic link exists especially with Rosslyn in Gauteng, through the Platinum Spatial Development Initiative.

It is also understood the existing Transmission network is operating at over 80% capacity, and there are concerns for capacity for future economic growth.

The Tshwane area is regarded as one of the cities most affected by apartheid and modernist planning. It is made up of low-density urban and rural sprawl, fragmentation, separation of land uses and income groups and structural imbalances. The city's settlement structure is regarded as one of the most inefficient and distorted in South Africa because so -called homelands (Bantustan) were situated nearby. This provided circumstances where residential settlements

could be located even further away from the city than before under pretence that development will be provided nearby. (Mabopane, GaRankuwa, Winterveld, Temba.) The creation of homelands in general also brought about huge concentrations of impoverished rural people that are still in a process of urbanization. About 80% of dwelling units in Tshwane are formal.

Akasia is one of an inner ring of satellite nodes developed approximately 10 to 12,5 kilometres from the city centre. These centres have established their own catchment areas and related developments and facilities.

Soshanguve, Rosslyn and GaRankuwa are part of a series of emerging and established urban cores - stretching northward away from the city center in a band from 25 km to 40 km, presenting difficulty in bringing about integration.

The Brits-GaRankuwa-Rustenburg area is a manufacturing cluster, creating employment opportunities for residents in North West Province-Madibeng and Gauteng-Tshwane. This includes the food and beverages sector; non-metallic mineral products; fuel petroleum chemical and rubber products; metal products and machinery; and transport equipment.

A new wave of urbanisation into the Tshwane area is expected because huge state subsidised transport schemes for people living in far away rural areas to the north east of Tshwane into Mpumalanga are about to be terminated by the department of transport.

See Appendix G and Maps 5.1 and 5.2 for further assessment.

8.1.10. Archaeology

There is a very interesting history to the area provided by Dr Julius Pistorius in Appendix F. Dr Pistorius has considerable experience of the area and the following is extracted from his text for the purposes of this overview.

The site lies within the Central Bankeveld containing a wide range of heritage resources dating from the pre-historic past through to the historical period and even the relatively recent past. This continuum is the result of the fact that many of the people living in the area are descendents of populations that have occupied the Central Bankeveld since the earliest times. The wider are has a rich history of human habitation and development, namely Stone Age and late Iron Age sites, historical sites and recent remains such as graves. Many of these are not considered to be of outstanding significance, though there are a number of low granite outcrops that do occur at locations in the servitude along the route and may contain late Iron Age stone walled sites, and may be of significance. However, such is the typical size and nature of these sites, impact on them can be avoided by careful placement of the towers and careful construction management.

See Appendix F and Maps 7.1 and 7.2 for further details.

8.2. IMPACT TABLES

The Impact Tables in Appendix D give a detailed account of the environmental issues identified thus far in the study. As far as possible at this stage, the issues have been evaluated based on

research and site visits. Pending public and stakeholder comment on the assessments, these evaluations will be finalised in the final Scoping Report.

The Impact Tables attempt to give a specific assessment of each issue, including levels of significance of the likely impacts both before and after the recommended mitigation. Opportunities for mitigation are set out and, where relevant, specifications for inclusion into the Environmental Management Plan are suggested.

8.3. IMPACT ASSESSMENT SUMMARY

The table below gives a simplistic summary of the assessments in the Impact Tables (Appendix D). It is intended to give a quick and broad overview of the anticipated environmental impacts of the development, but it must be acknowledged that distilling a wide range and complex combination of issues into a summary does not allow a fair understanding of the detail of the issues. Furthermore it does not highlight the differences in impacts between the different phases (eg construction and operation in particular). Hence, the reader is encouraged to refer to Appendix D for more detail.

In the local context the net impact of the proposed 400kV Transmission line would appear to be negative. The net negative impact of large infrastructure on the physical environment is unavoidable, as are the visual impacts to a greater extent. However, there is some potential benefit to the local physical environment if careful rehabilitation and long-term maintenance of the area around the substation is provided (though this is not seen to offset the overall physical impact).

The impacts on the social environment are somewhat more complex, and many relate to the construction period. The health risks are low, but disruption to the social fabric of the communities could be high with long-term consequences unless the construction phase is carefully controlled. However, with careful management, the negative impacts on the local communities will be low and has been achieved elsewhere on similar developments, but it is important that good management is provided both from the contractor and the developer (Eskom Transmission Division).

A particular aspect of the social impacts that will need to be addressed is the anticipated relocation of properties in the servitude. There are three properties near the Vametco Mine that have been in existence since before the registration of the servitude (see location 3 on Map 5.1). The residents of these properties will need to be compensated and relocated outside of the servitude area by Eskom Transmission Division. Further to the east there are a number of informal houses that have encroached into the servitude (see location 28 on Map 5.2). These properties will also need to be moved outside of the servitude and the owners compensated. In both cases the registered landowner was the national or provincial government until the servitude was registered, and these authorities will need to be involved in the relocation process. It is understood that the local authority (municipal) representatives will assist with the process in this regard. It is important that relocation and compensation is completed before construction of the line starts in these areas.

There are two locations where the servitude has not been finalised and these are shown in Maps 4.1 and 4.2. Neither are of particular concern from an environmental perspective. The

first is the servitude linking the new line to the proposed Adis substation. This land is owned by Madibeng Municipality who are currently in the negotiation process with Eskom Transmission Division for the sale of the land and is therefore aware of the development proposals. The second is a portion of the farm Nooitgedacht 256JQ (Portion 4) which is understood to belong to the Bakgatla Ba-Makau tribe. The Kgosi for this area has been consulted on the study and is therefore aware of the development proposals. Indeed, the neighbouring property is also owned by the tribe and they have already signed the servitude over to Eskom. In both cases the environmental impacts are similar to the neighbouring properties and there is not likely to be any reason to divert from the current alignment.

The main benefits of the development are the economic related issues, and will have both local and regional influence. Local benefit will be largely indirect, and result from better economic strength in the region, though there are some potential short-term opportunities during the construction phase.

There are seen to be no fatal flaws arising from the environmental impact assessment at this stage in the study. Issues raised by the public, stakeholders and interested parties on the Draft Scoping Report have been considered and addressed in the Impact Tables, though there has been no conflict with respect to the assessment described above.

Summary of Impact Tables (see Appendix D)

(L, M, H refer to Low, Moderate & High impacts, all being negative unless appended by '+')

Issue	Significance rating before and after mitigation	
	Before	After
Economic		
National and provincial support	H +	H +
Local benefits	M to H +	M to H +
Tariffs	none	none
Job creation	L to M +	M +
Direct electricity supply	none	none
Tourism	L	L
Wellbeing		
Electromagnetic fields	H*	L
Dust & Noise pollution	M to L	L
Corona	M to L	M to L
Use of creosote poles	M to L	L
Increase in fire hazards in the community	H to M	L
Aesthetics		
Visual Impact	M	M
Loss of sense of place	L	L
Social		
Relocation of people	M to L	L to L +
Disruption of social networks, etc.	M	M to L
Location of construction camps	H	L +
Grave sites	L	L
Traffic safety	M to H	L to M
Inmigration of construction workers	M to H	M to L
Land issues		
Compensation	See text	
Land Evaluation	See text	
Property value reduction	H	L +
Farming Related Issues		
Access to properties	M to H	L
Access roads (damage to)	M to H	L to M
Loss of agricultural potential	See text	
Impacts on seasonal activities	M to H	L to M
Natural environment		
Erosion	M to L	L
Impact on fauna	L	L +
Impact on birds	L	L
Impact on flora	M to L	L to L +
Importation of alien vegetation	M	L
Impact of herbicides	M	L
Impact on conservation areas	none	
Impact of construction camps	M to H	M to L
Cultural and archaeological sites		
Palaeontological sites	None	
Archaeology	M to L	L
Cultural and historical sites	L	L
Impact on National Heritage sites	none	

* Perceived

9. CONCLUDING REMARKS

The previous study suggests that the best environmental route from Bighorn to Phoebus was selected and was therefore given environmental authorisation. Given that part of that line was built, this restricted the focus of thus study to the Adis-Phoebus section.

While exemption from the consideration of alternatives has been considered, a preliminary review of route alternatives suggests very limited options for alternative corridors between the two sites, and that the given route would appear to be the best available.

The identification of environmental issues, and assessment thereof, has thus far not raised any 'no-go' areas or fatal flaws in the proposed development of the line. There is an expected net negative impact on the physical environment, but the potential economic benefits of the development will impact on both the local and regional area.

However, there are many negative impacts associated with the physical and social environments that need to be addressed in the EMP and carefully managed during construction. The EMP requirements are set out in the Impact Tables in Appendix D.

Independent legal review of the study process has given general support for the approach in terms of the law. One area of concern raised was that of the proposed period for public comment on the Draft Scoping Report. As a result the comment period was extended by an additional week to a 21-day comment period. In the light of the history of this project and that the study area is focussed on the existing registered servitude, this comment period is considered reasonable, and was backed up with personal contact with directly affected landowners.

It is considered that the level of study has been appropriate for the nature, extent and history of the project. It is considered that further detailed specialist studies will not be necessary to support the decision making process. That further detailed studies are recommended, but only for the detailed design phase, is seen to be appropriate for this study and that this approach has been adopted for similar and more extensive Transmission line studies.

10. RECOMMENDATIONS

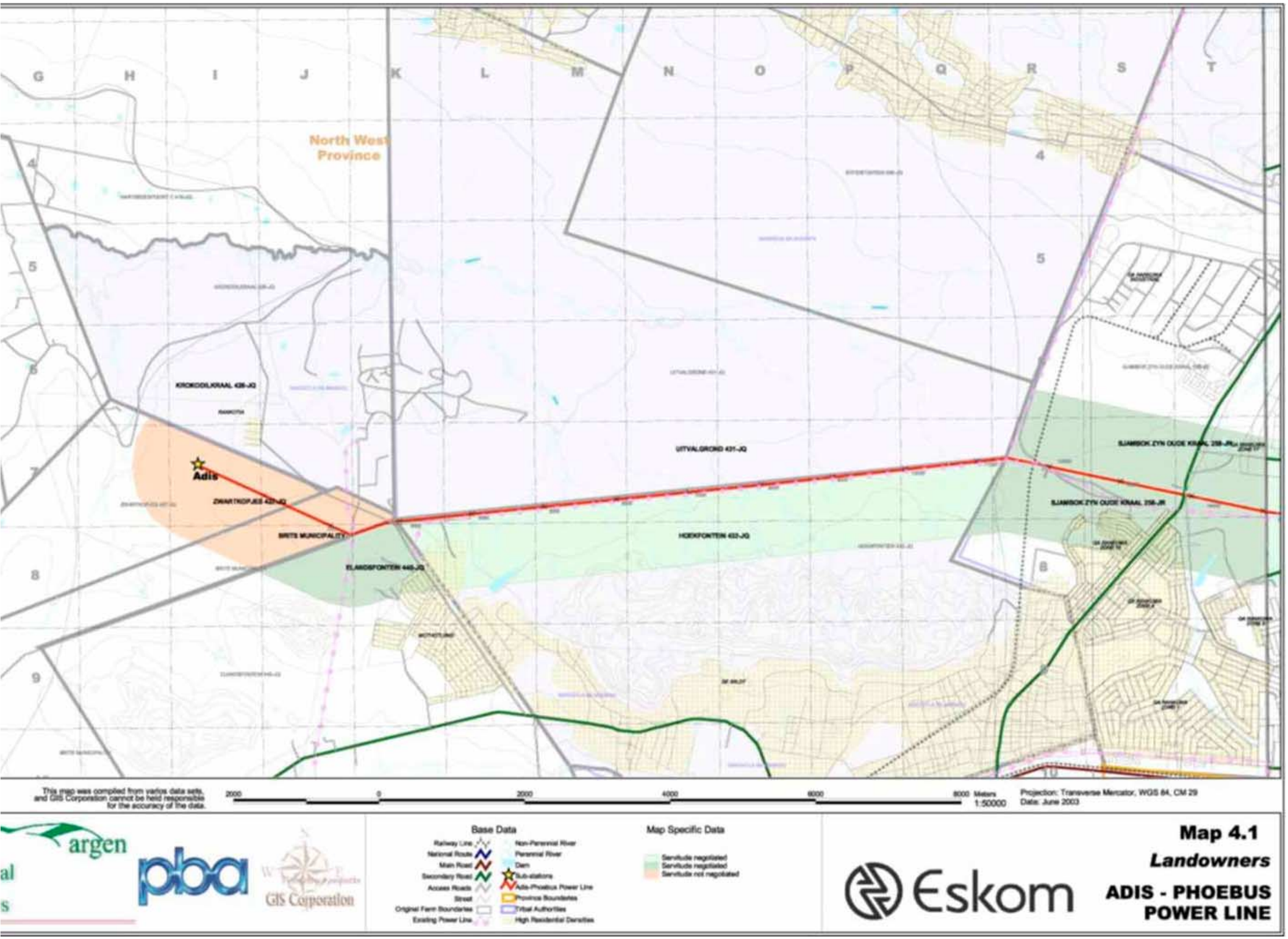
A comprehensive set of recommendations is set out in the Impact Tables in Appendix D. it is not intended to repeat them here. However there are a number of broader recommendations that need to be stated:

- A detailed ecological survey of the servitude will be necessary once the provisional tower placements have been identified. The specialist ecologist will then advise on adjustments to the tower positions to minimise ecological damage.
- Similarly, a phase 1 archaeological study will be required at the same time. The input of both specialists will need to be co-ordinated by the design team.
- The matter of the relocation of houses in the servitude near the Vametco Mine, and those just north of GaRankuwa need to be finalised before the construction of the line starts. It will be necessary to involve the local authorities (particularly the Ward Councillors) in the compensation and relocation process.

- There are also two sections of the servitude that are not yet registered (see Map 4.1 and 4.2). There are no particular environmental issues associated with these sections, but the servitude will need to be registered before those sections of the line may be constructed.

MAPS

- Map 4.1 – Landowners
- Map 4.2 – Landowners
- Map 5.1 – Social Issues
- Map 5.2 – Social Issues
- Map 6.1 – Ecological Issues
- Map 6.2 – Ecological Issues
- Map 7.1 – Archaeological Issues
- Map 7.2 – Archaeological Issues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North West Province
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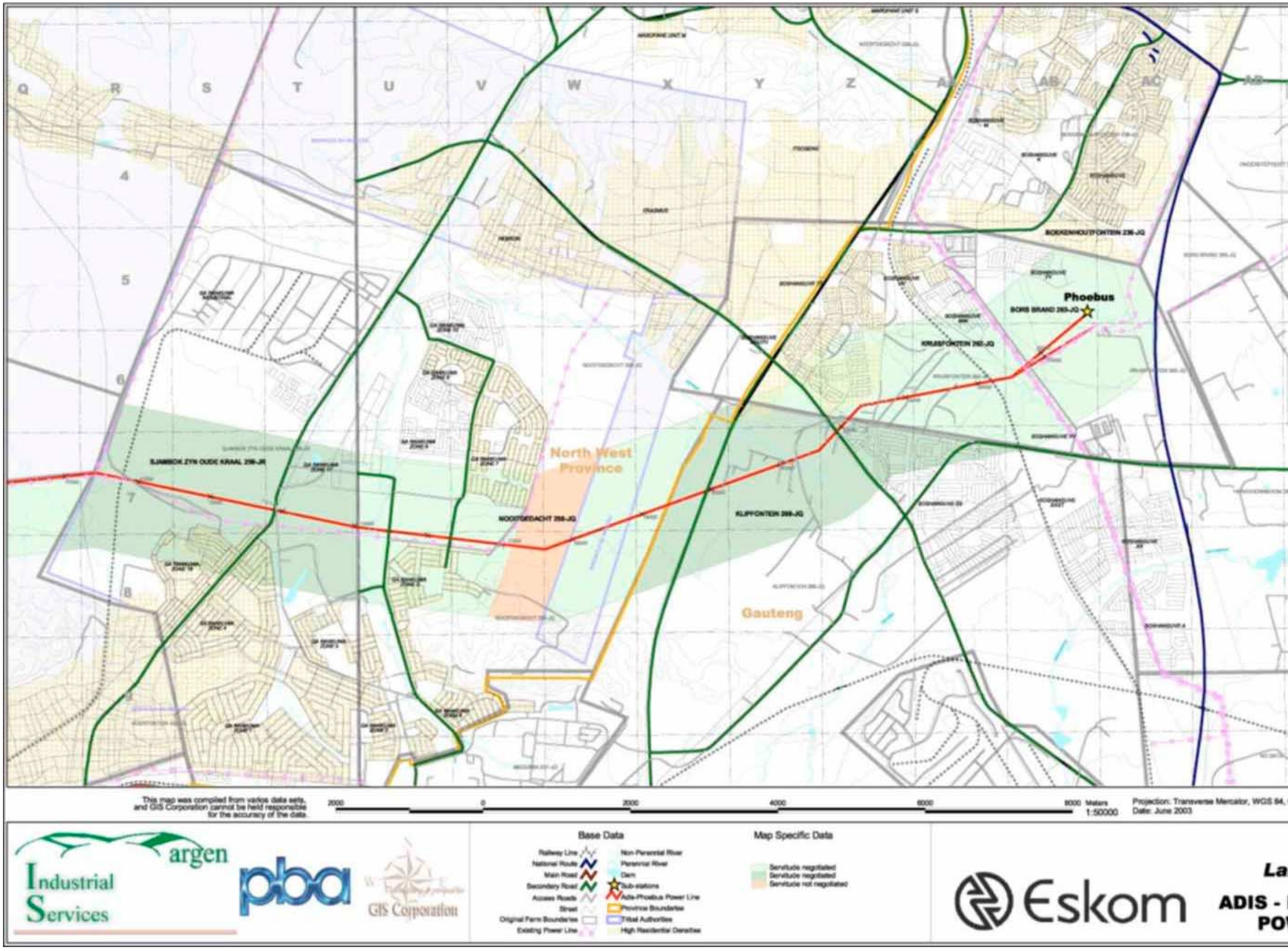
KROKODILKRAAL 428–JQ
Adis
ZWARTKOPJES 433–JQ
MATS MUNICIPALITY
ELANDSFONTEIN 446–JQ
UITVALGROND 431–JQ
HOEKFONTEIN 432–JQ
SLANGSOK ZYN OUDE KRAAL 256–JR
This map was compiled from varios data sets, and GIS Corporation cannot be held responsible for the accuracy of the data.
2000 0 2000 4000 6000 8000 Meters
1:50000
Projection: Transverse Mercator, WGS 84, CM 29
Date: June 2003
Base Data
Railway Line
National Route
Main Road
Secondary Road
Access Roads
Street
Original Farm Boundaries
Existing Power Line
Non-Perennial River
Perennial River
Dam
Sub-stations
Adis-Phoebus Power Line
Province Boundaries
Tribal Authorities
High Residential Densities
Map Specific Data
Servitude negotiated
Servitude negotiated
Servitude not negotiated
GIS Corporation
Eskom
Map 4.1
Landowners
ADIS - PHOEBUS POWER LINE


Phoebus
BOKKENHOUTFONTEIN 236-JQ
BORIS BRAND 265-JQ
KRUISFONTEIN 260-JQ
KLIPFONTEIN 268-JQ
NOOITGEDACHT 266-JQ
SJAMBOK ZYN OUDE KRAAL 256-JR
North West Province
Gauteng
This map was compiled from varios data sets, and GIS Corporation cannot be held responsible for the accuracy of the data.
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Projection: Transverse Mercator, WGS 84,
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Perennial River
Dam
Sub-stations
Adis-Phoebus Power Line
Province Boundaries
Tribal Authorities
High Residential Densities
Map Specific Data
Servitude negotiated
Servitude negotiated
Servitude not negotiated
Industrial Services
pba
GIS Corporation
Eskom


North West Province
Adis
8: Proposed NW 6 route (approximate location)
6: Mining
12: Subsistence agriculture.
13: Proposed Low Cost housing.
9
5: Waste disposal site
14: Proposed Low Cost housing.
11: Subsistence agriculture.
3
2: Brick houses.
24: Sewage works & runoff.
15: Proposed informal settlement area.
1: Proposed Low Cost residential expansion.
10: Proposed regional open space, currently mining.
1
24
10
7
7: Proposed 3rd order Service Delivery Centre.
25: Community access through mine.
26: Community access through mine.
This map was compiled from various data sets, and GIS Corporation cannot be held responsible for the accuracy of the data.
Meters
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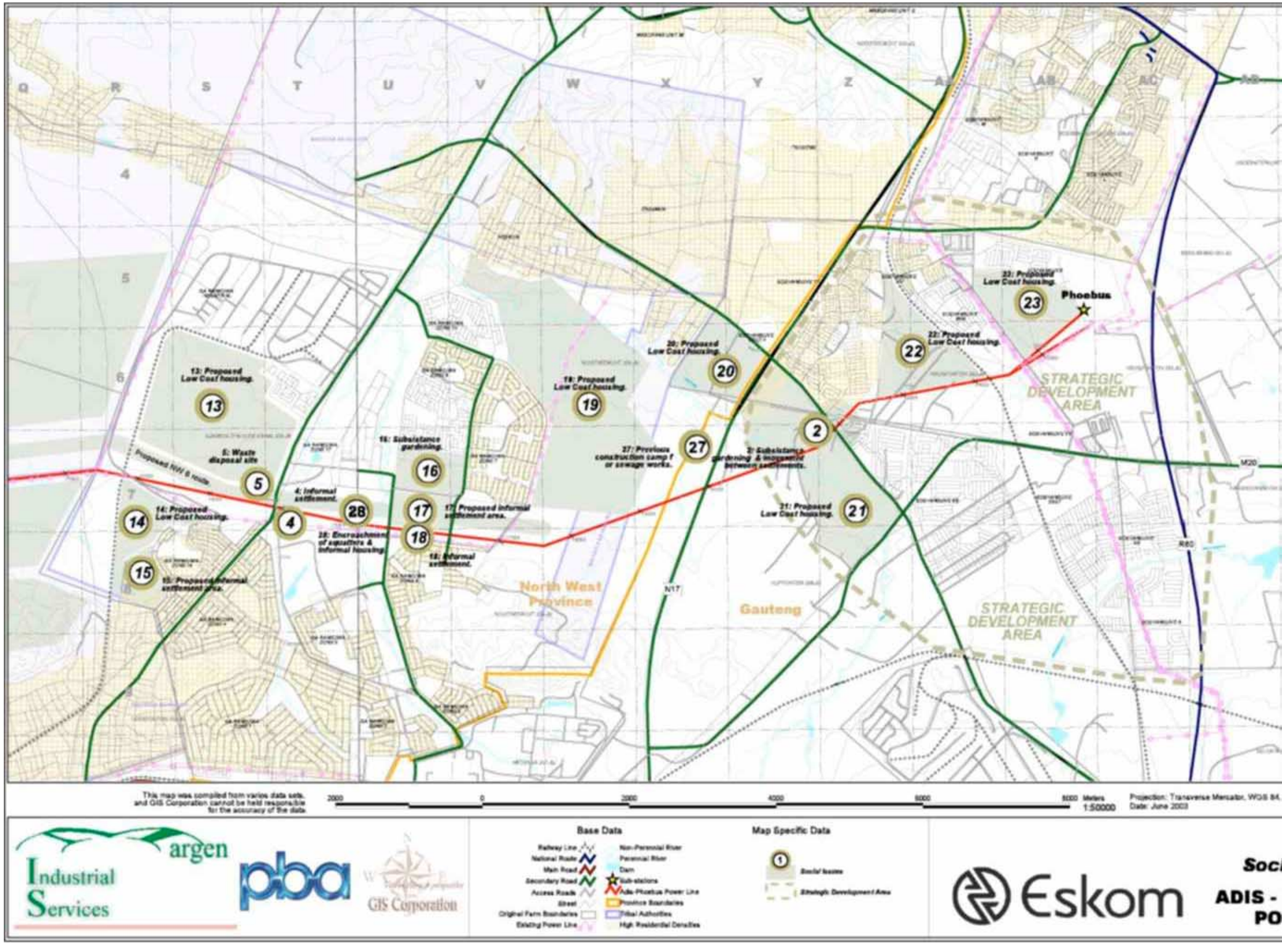
Non-Perennial River
Perennial River
Dam
Sub-stations
Adis-Phoebus Power Line
Province Boundaries
Tribal Authorities
High Residential Densities
Map Specific Data
Social Issues
Eskom
Social
ADIS - PH
POWE


Phoebus
13: Proposed Low Cost housing.
19: Proposed Low Cost housing.
20: Proposed Low Cost housing.
22: Proposed Low Cost housing.
23: Proposed Low Cost housing.
5: Waste disposal site
16: Subsistance gardening.
4: Informal settlement.
28
17
17: Proposed informal settlement area.
18
18: Informal settlement.
14: Proposed Low Cost housing.
15: Proposed informal settlement area.
27: Previous construction camp / or sewage works.
3: Subsistance gardening & informal between settlements.
21: Proposed Low Cost housing.
North West Province
Gauteng
N17
STRATEGIC DEVELOPMENT AREA
STRATEGIC DEVELOPMENT AREA
M20
R80
This map was compiled from varies data sets, and GIS Corporation cannot be held responsible for the accuracy of the data.
2000 0 2000 4000 6000 8000 Meters
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Projection: Transverse Mercator, WGS 84,
Date: June 2003
Industrial Services
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Access Roads
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Original Farm Boundaries
Existing Power Line
Non-Perennial River
Perennial River
Dam
Sub-stations
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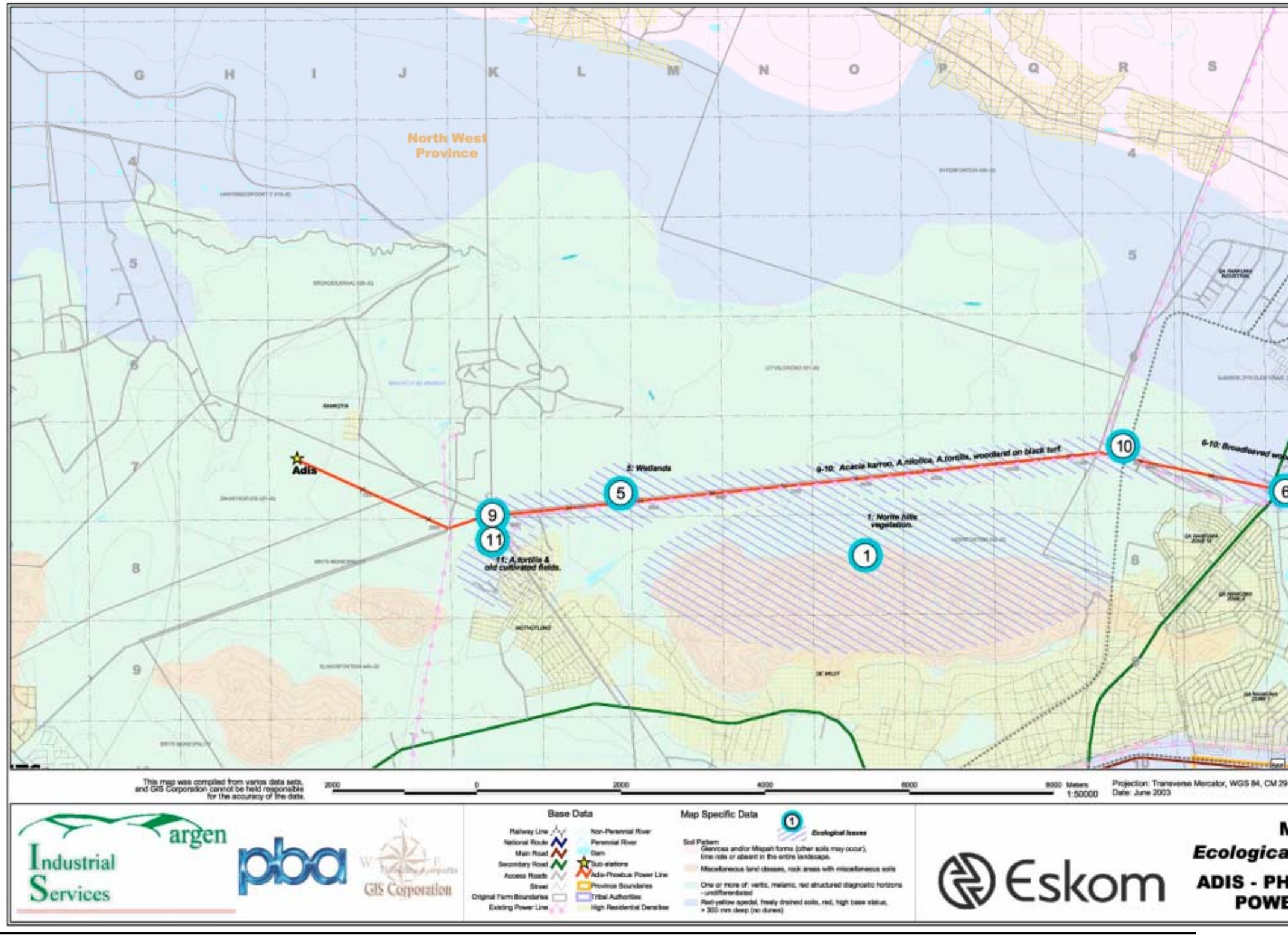
Tribal Authorities
High Residential Densities
Map Specific Data
Social Issues
Ethiopic Development Area
Eskom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North West Province
Adis
5: Wetlands
9-10: Acacia karroo, A.nilotica, A.tortilis, woodland on black turf
1: Northe hills vegetation.
11: A.tortilis & old cultivated fields.
This map was compiled from varios data sets, and GIS Corporation cannot be held responsible for the accuracy of the data.
2000 0 2000 4000 6000 8000 Meters
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Projection: Transverse Mercator, WGS 84, CM 29
Date: June 2003
Base Data
Railway Line
National Route
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Original Farm Boundaries
Existing Power Line
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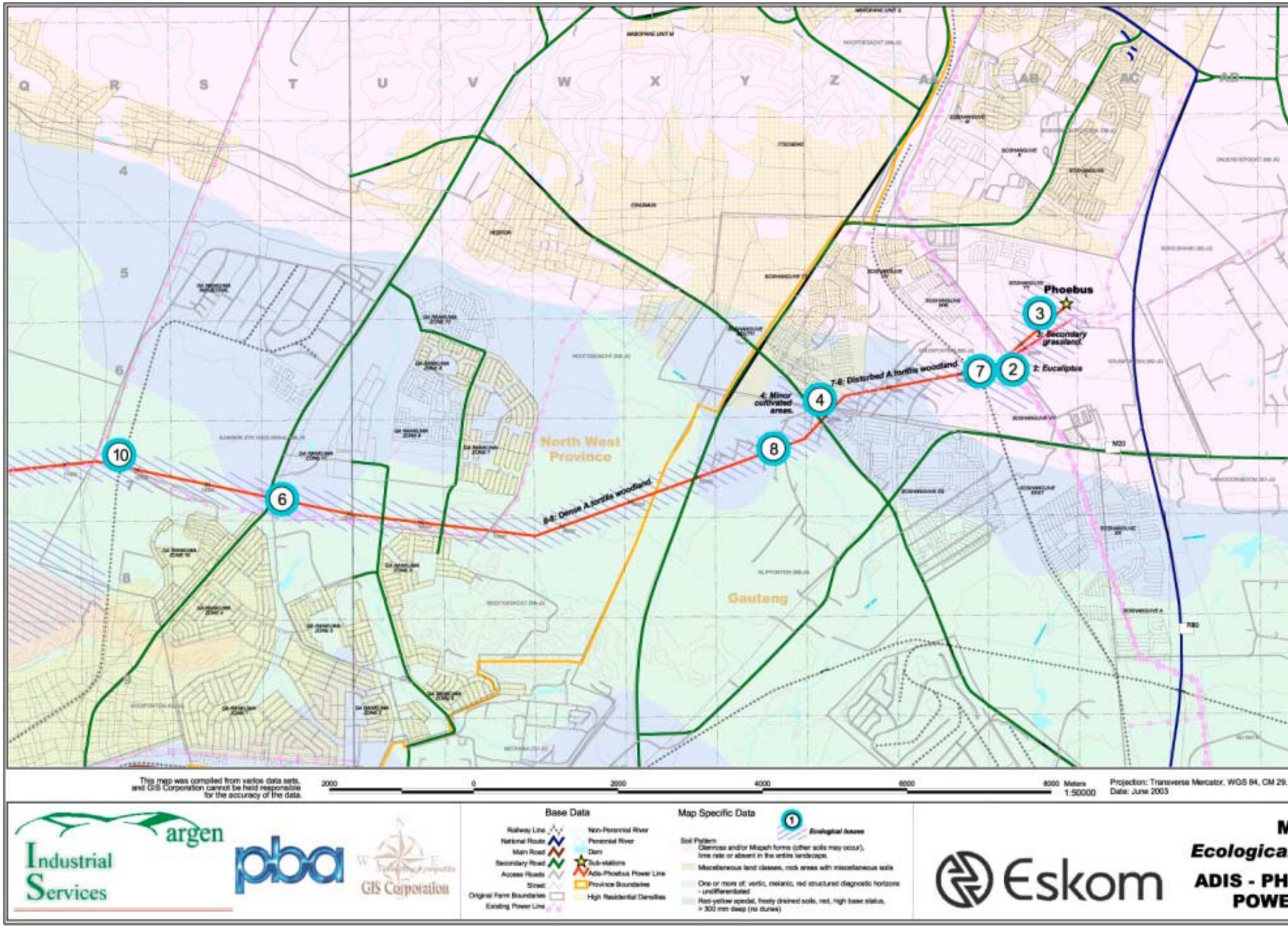
Perennial River
Dam
Sub-stations
Adis-Phoebus Power Line
Province Boundaries
Tribal Authorities
High Residential Densities
Map Specific Data
Ecological Issues
Soil Pattern
Glenrosa and/or Mispah forms (other soils may occur); lime rels or absent in the entire landscape.
Miscellaneous land classes, rock areas with miscellaneous soils
One or more of: vertic, melanic, red structured diagnostic horizons - undifferentiated
Red-yellow apedal, freely drained soils, red, high base status, > 300 mm deep (no dunes)
Industrial Services
GIS Corporation
Eskom
Ecologica
ADIS - PH
POWE


Phoebus
3
3: Secondary grassland
7
2
2: Eucalyptus
7-8: Disturbed A.tortilis woodland
4
4: Minor cultivated areas
8
8-6: Disturbed A.tortilis woodland
6
10
North West Province
Gautang
N20
R80
This map was compiled from varios data sets, and GIS Corporation cannot be held responsible for the accuracy of the data.
2000 0 2000 4000 6000 8000 Meters
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Projection: Transverse Mercator, WGS 84, CM 29.
Date: June 2003
Industrial Services
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GIS Corporation
Base Data
Railway Line
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Perennial River
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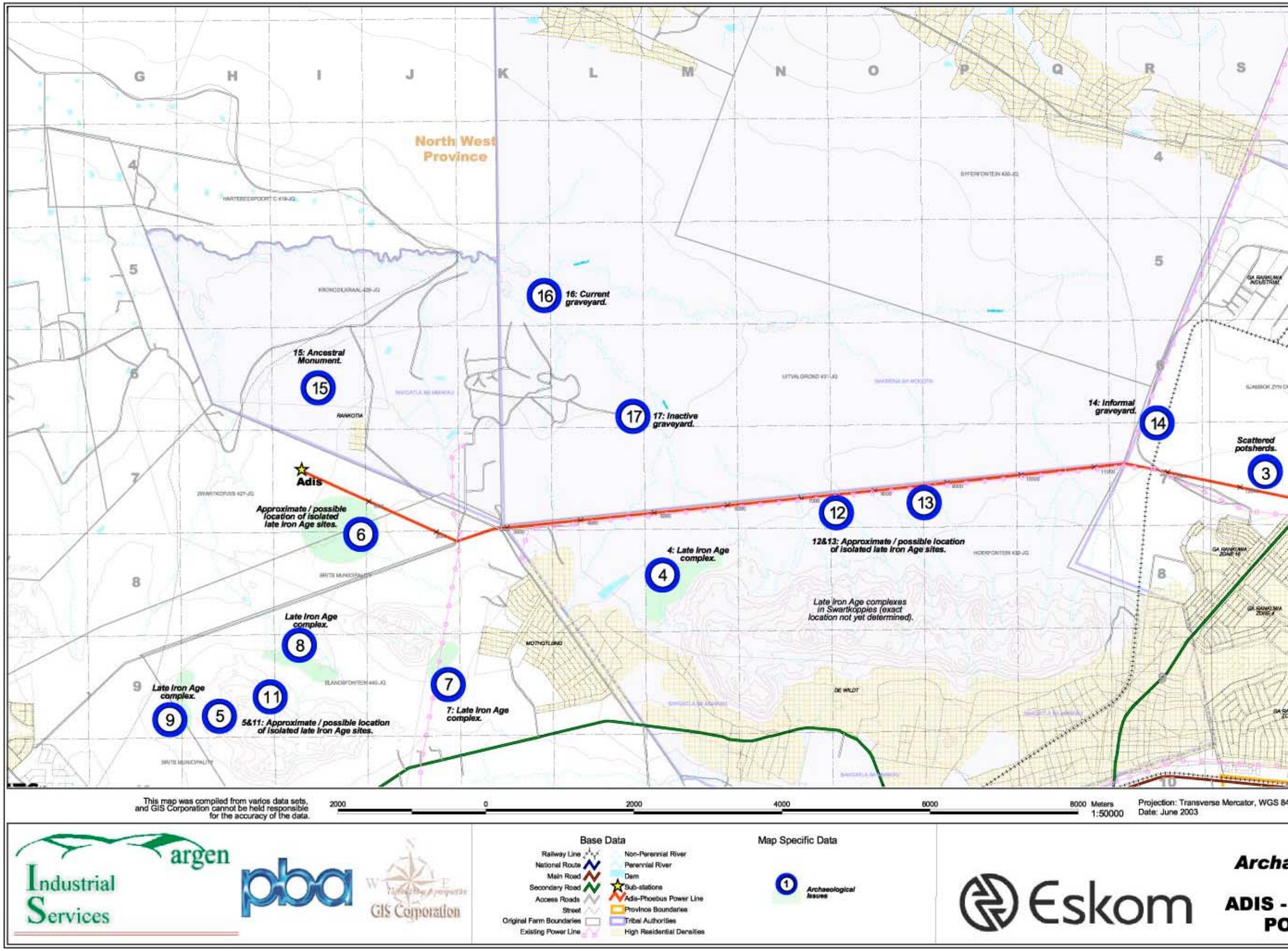
Sub-stations
Adis-Phoebus Power Line
Province Boundaries
High Residential Densities
Map Specific Data
1 Ecological Issues
Soil Pattern
Oliernross and/or Mispah forms (other soils may occur), lime rate or absent in the entire landscape.
Miscellaneous land classes, rock areas with miscellaneous soils
One or more of: vertic, melanic, red structured diagnostic horizons - undifferentiated
Red-yellow apedal, freely drained soils, red, high base status, > 300 mm deep (no dunes)
Eskom
Ecologica
ADIS - PH
POWE


North West Province
16: Current graveyard.
15: Ancestral Monument.
17: Inactive graveyard.
14: Informal graveyard.
Scattered potsherds.
Adis
Approximate / possible location of isolated late Iron Age sites.
12&13: Approximate / possible location of isolated late Iron Age sites.
4: Late Iron Age complex.
Late Iron Age complexes in Swartkoppies (exact location not yet determined).
Late Iron Age complex.
Late Iron Age complex.
5&11: Approximate / possible location of isolated late Iron Age sites.
7: Late Iron Age complex.
This map was compiled from varios data sets, and GIS Corporation cannot be held responsible for the accuracy of the data.
2000 0 2000 4000 6000 8000 Meters
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Projection: Transverse Mercator, WGS 84
Date: June 2003
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Archaeological Issues
Industrial Services
GIS Corporation
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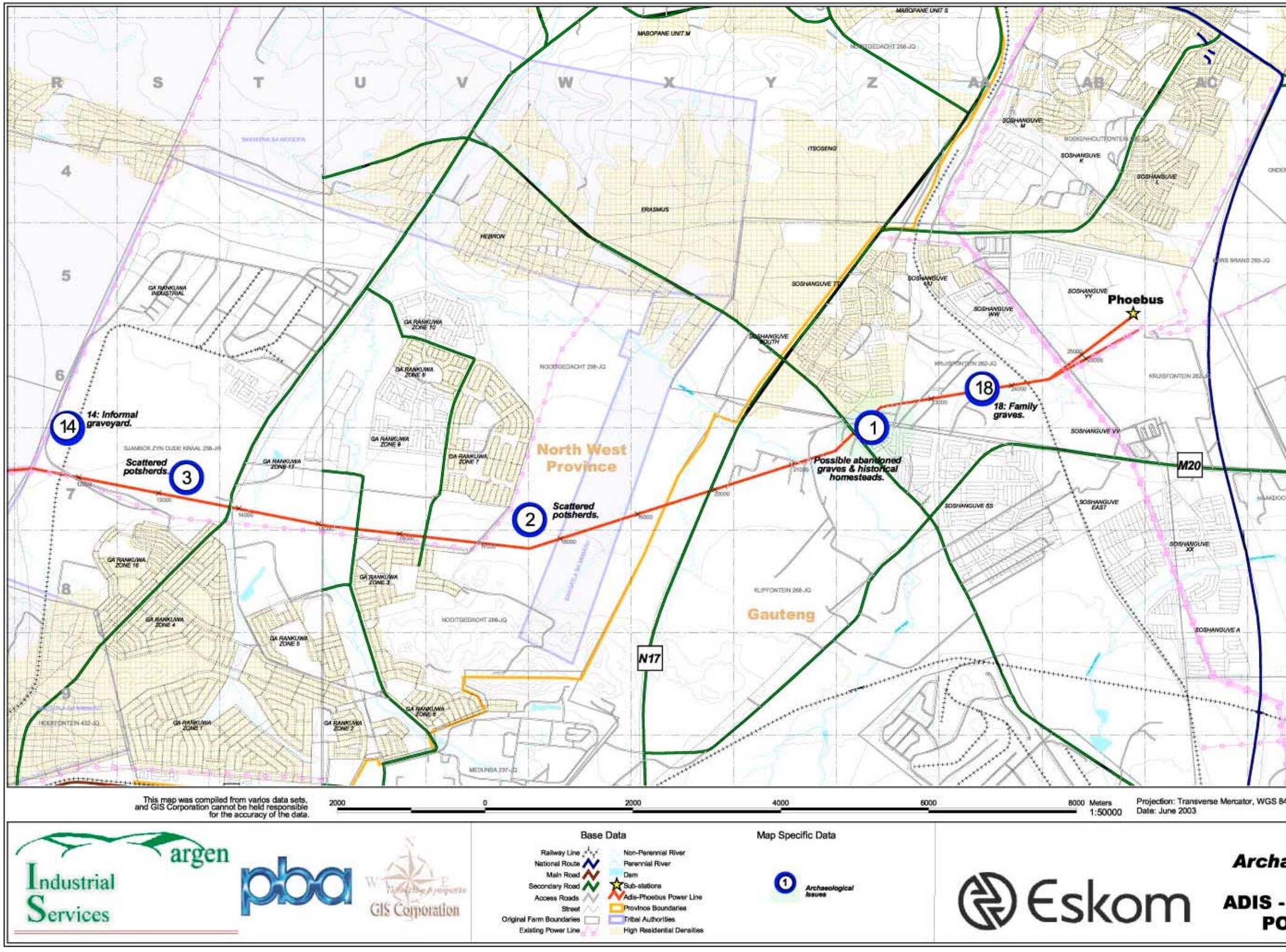

This map was compiled from varios data sets, and GIS Corporation cannot be held responsible for the accuracy of the data.

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Projection: Transverse Mercator, WGS 84
Date: June 2003

Base Data

- Railway Line
- National Route
- Main Road
- Secondary Road
- Access Roads
- Street
- Original Farm Boundaries
- Existing Power Line
- Non-Perennial River
- Perennial River
- Dam
- Sub-stations
- Adis-Phoebus Power Line
- Province Boundaries
- Tribal Authorities
- High Residential Densities

Map Specific Data

- 1 Archaeological Issues

Industrial Services

GIS Corporation

Eskom

Archa

ADIS -
PO

APPENDIX A: COPY OF ENVIRONMENTAL AUTHORISATION FOR THE BIGHORN-ADIS-PHOEBUS LINE AWARDED IN JUNE 1999.

30-JUN-1999 08:27 FROM [illegible] TO [illegible] P.01

Department of Tourism, Environment and Conservation
Private Bag X90
MMABATHO
2735

Tel: 018 - 384 1022/3/4/5/7
Fax: 018 - 389 5158

North West
TEC

FAX COVER SHEET

Attention: J. H. Geeringh
Organisation: ESKOM
Fax: 011 800 3517 (800 x 1165)
Sender: Elden de Boom
Fax operator: 018 374 8244
Date: 30/06/99

Message:
Please receive the attached RoD
for the following electricity transmission line
- Brighton - Adis - Phoebus 400kV
- Hernic Ferrochrome 132kV

Regards

Number of pages: 1 + 6 including cover sheet

Physical Address: Dr Albert Luthuli Drive, Agricentre Building, Ground Floor, East Wing, Mmabatho

NORTH WEST PROVINCE;
DEPARTMENT OF TOURISM, ENVIRONMENT AND CONSERVATION (TEC)

ENVIRONMENTAL IMPACT EVALUATION
Private Bag X90, Mafikeng, 2735
Tel +27 18 384 1022/3/4/5/6/ Fax +27 18 389 5158 or 384 8244
Dr Albert Luthuli Drive, Agricentre Building, Ground Floor, East Wing

North West T·E·C

Date: 29 June 1999
Project Ref: NW 97/98

Att: J.H. Geeringh
P.O. Box 1091
Johannesburg
2000
Tel: 011 100 2465
Fax: 011 100 3917

Re: AUTHORISATION FOR THE ERECTION OF THE BIGHORN - ADIS - PHOEBUS 2X 400KV TRANSMISSION LINES - Registration No. 97/98NW

By virtue of the powers delegated by the Minister in terms of Section 22 of the Environment Conservation Act (Act 73 of 1989), the Department of Tourism, Environment and Conservation authorises the following project:

TITLE THE BIGHORN - ADIS - PHOEBUS 2X 400KV TRANSMISSION LINES

The authorisation is valid for a period of six (6) months. The date of this authorisation is 29/06/1999

Enclosed, please find the Record of Decision and the conditions under which the application is approved. Appeals regarding the authorisation can be directed to the MEC B.E.E. Molewa, Department of Tourism, Environment and Conservation, North West Province at the Above address. Such an appeal must be lodged before 29/07/1999

Yours Faithfully

Alfred Wills
Chief Director

North West
T E C

Record of Decision

DATE	29 June 1999
FILE NO	NW 97/98

DESCRIPTIO I OF THE ACTIVITY

Authorisation I or The Erection of The Bighorn - Adis - Phoebus 2x 400kv Transmission I ines	
LOCATION	Brits district

APPLICANT S DETAILS

NAME	Eskom Transmission
ADDRESS	P.O. Box 109, Johannesburg, 2000
TELEPHONE	011 - 800 8111/2463
FAX	011 - 800 3937

CONSULTAN T

NAME	A.B. de Villiers
ADDRESS	7 Loius Leipoldt Street, Potchefstroom, 2531
TELEPHONE	018 294 5005
FAX	018 299 1580
E - MAIL	

SITE VISITS

DATE	30/08/98
PERSONS PRESENT	• Brain Tladi - North West TEC • J.H. Geeringh - ESKOM

DECISION

To Erect the Bighorn - Adis - Phoebus 2x 400kv Transmission Lines

KEY FACTORS FOR THE DECISION

- Submission of a Scoping report
- The completion of a Archeological survey of the area; no sites of historical importance was found
- No objections from the Interested and Affected Parties
- The development of a comprehensive Environment Management Plan (EMP) that will ensure minimal damage (to be approved by this office)

CONDITIONS

- All conditions and recommendations as stipulated in the scoping report should be adhered to.
- This permit is issued without any alteration in terms of Government Notice No. R1183 of September 1997 of the Environmental Conservation Act (Act No. 73 of 1989). Failure to comply with, or any deviation from the conditions set out in this authorisation constitutes a failure in compliance with authorisation. Such failure in compliance will be dealt with in terms of section 29, 30, and 31 of this Act as well as, any other appropriate legal mechanisms
- The conditions stipulated in this permit shall be reviewed after a period of five years from date of issue of this permit

PERIOD OF VALIDITY

DATE OF ISSUE	29/06/1999
DURATION	Six months
DATE OF EXPIRY	03/01/2000

APPEAL

NAME	MEC - Dept. of Tourism, Environment & Conservation
ADDRESS	Private Bag X90, Mafikeng, 2735

SIGNED: D SWART, Deputy Director
Private Bag X88, MMABATHO 2735
Tel (0140 [illegible]) Fax (0140 [illegible])

DATE: 29/6/99

APPENDIX B: MOTIVATION FOR EXEMPTION FROM CONSIDERATION OF ALTERNATIVES PREPARED BY ESKOM TRANSMISSION DIVISION MAY 2003

MOTIVATION FOR EXEMPTION FROM CONSIDERATION OF ALTERNATIVES

The choice of the line route from Bighorn to the proposed Adis Substation site was made based on an impact assessment done by Professor A B De Villiers of the Potchefstroom University. The ROD for this section as well as the section of line from Adis to the proposed Phoebus site in North West province was granted in June 1999 (see appendix A). This authorisation has subsequently lapsed, although part of the project was implemented. The current Bighorn-Adis 400kV Transmission line is operating at 88kV and is supplying Vametco directly. The section of servitude from Adis to Phoebus was obtained by Eskom and registered as a servitude, with input from all the major stakeholders affected by the servitude alignment.

At the time of obtaining the servitude, the Ucar Mining area was considered with its mineral resources, the Department of Land Affairs, Brits and the Pretoria Municipalities were consulted, and their development planning for the area was taken into consideration. The servitude from Adis to Phoebus was therefore granted to become a service corridor and provision was made for four (4) power lines in the service corridor, 2 x 400kV and 2 x 132kV. The other major development along this corridor were to be housing and possible industry.

This forward planning will service the needs of the area way into the future and enable Eskom to fulfil its obligation to supply electricity for industrial and other development in the area from Rustenburg to Pretoria-North. It also prevented the area from being fragmented by a large number of power line corridors.

APPENDIX C: PUBLIC INVOLVEMENT PROGRAMME

- Background Information Document

- Media: Project Announcement
  - Table of Media
  - English Advert
  - Afrikaans Advert
  - English Press Release
  - Afrikaans Press Release
  - Final Scoping Report Distribution Advert
    - Afrikaans advert not available at time of print

- Schedule of Properties and Infrastructure Crossings

- Key Stakeholder and Landowner Database
  - I&AP Meeting Minutes

- Key Stakeholder Workshop
  - Workshop Database
  - Minutes
  - Attendance Register

ADIS-PHOEBUS 400kV TRANSMISSION LINE AND SUBSTATION ENVIRONMENTAL IMPACT ASSESSMENT INFORMATION DOCUMENT

MAY 2003

The aim of this document

In accordance with Section 21 of the Environmental Conservation Act, 1989, the activity of constructing an electrical transmission line and substation is classified as a listed activity, which requires Environmental Impact Assessments (EIAs), before construction can commence. In addition, the involvement of interested and affected parties (I&Aps) within the area is required. To make sure that all key stakeholders are involved in the study process, this information document is made available to:

- Introduce I&Aps to the proposed project;
- Highlight generic issues and concerns associated with transmission lines and substations, and
- Solicit and receive further comments and issues to be considered during this study.

You are invited to contact the Public Involvement Office for comments and enquiries:

Karin Bowler at:

pbai (SA)
P O Box 3300
Houghton 2041
Tel: 011-4864730
Fax: 011- 646 5135
pbai@iafrica.com

Background

To support the growing demand for electricity in the north-western industrial area of the country, Eskom Transmission Division needs to both improve the reliability of the existing network and ultimately upgrade its capacity. Eskom Transmission Division is proposing the construction of a new substation near Brits and 400kV transmission line from the substation to Phoebus Substation near Shoshanguve.

However, Adis Substation and the 28km 400kV transmission line are not entirely new developments: The strategic plan has been to upgrade the network to 400kV capability from the Matimba Power Station (near Ellisras), through the heavy industrial areas around Rustenburg, Brits and Tshwane. The network will ultimately follow through to link the 400kV network with the power stations in Mpumalanga, thereby enhancing the reliability of the supply to the area, and allowing for further growth in demand. To date, the line through to Bighorn (Marikana) and the proposed Adis site has been completed, but is operating at 88kV to supply local industry in the Brits area. The establishment of the Adis Substation and extending the line to Phoebus will allow the network to operate at 400kV and improve both reliability and capacity of supply to the Rustenburg-Brits-Shoshunguve-Pretoria North areas.

An Environmental Impact Assessment (EIA) for the Bighorn-Adis-Phoebus 400kV line and substations that extend from Rustenburg to Shoshanguve was conducted and environmental authorisation was awarded in June 1999. (This report is available from Eskom Transmission Division).

Since then the servitude of the preferred transmission line route has been negotiated and the Bighorn – Adis section has been constructed. Due to the delay in constructing the remaining section, an EIA will now be conducted for the Adis – Phoebus Transmission Line Section and the Adis Substation.

Agtergrond tot die studie

Ten einde aan die toenemende vraag na elektrisiteit in die industriële gebied in die noordweste van Suid-Afrika te voorsien, moet Eskom Transmissie Divisie die betroubaarheid van die bestaande netwerk verbeter en uiteindelik ook sy kapasiteit opgradeer. Eskom Transmissie Divisie beplan dus om 'n nuwe substasie naby Brits, asook 'n 400kV-transmissielyn vanaf dié substasie na die Phoebus-substasie naby Shoshanguve, te bou.

Die Adis-substasie en die 28km 400kV-transmissielyn is nie heeltemal nuwe ontwikkelings nie. Die strategiese plan was om die netwerk se kapasiteit na 400kV op te gradeer. Dié netwerk strek van die Matimba-kragstasie (naby Ellisras) deur die swaar nywerheidsgebiede in die omgewing van Rustenburg, Brits en Tshwane. Dié netwerk sal uiteindelik deurloop om die 400kV-netwerk by die kragstasies in Mpumalanga aan te sluit. Betroubare elektrisiteitsvoorsiening na dié gebied sal so verbeter word en derhalwe ook die groei in aanvraag.

Die 400kV-lyn vanaf Bighorn (naby Marikana) tot by die voorgestelde Adis-terrein is reeds voltooi, maar word teen 88kV bedryf om die plaaslike nywerhede in die Brits-omgewing van krag te voorsien. Die oprigting van die Adis-substasie en die verlenging van die lyn tot by Phoebus sal beteken dat die netwerk teen 400kV bedryf kan word en die betroubaarheid en kapasiteit van die toevoer na die Rustenburg-Brits-Shoshanguve-Pretoria Noord-gebiede sal dus verbeter word. Die Adis-substasie vorm deel van die voltooiïng van 'n vorige Omgewingsassessering (OA).

Die OA vir die Bighorn-Adis-Pheobus 400kV-lyn en substasie wat vannaf Rustenburg tot Shoshanguve strek, is gedoen en omgewingsmagtiging is in Junie 1999 toegeken. Sedertdien is die serwituut vir die voorgekeurde transmissielynroete onder-handel en die Bighorn-Adis-gedeelte gebou. Weens die vertraging in die konstruksie van die oorblywende gedeelte, moet 'n OA vir die Adis-Phoebus-transmissielyn en Adis-substasie nou onderneem word.

Die Omgewingsassessering-proses wat vir dié studie gevolg sal word.

Twee afsonderlike OAs sal onderneem word. Eskom Transmissie Divisie het, ingevolge omgewingswetgewing, Margen Industrial Services as die Onafhanklike Omgewingskonsultant aangestel om dié OAs te onderneem. Soos met die Departement Omgewingsake en Toerisme ooreengekom is, sal die twee OAs gelyktydig uitgevoer word. 'n Span spesialiste het reeds 'n terreinbesoek onderneem om die projek, die omgewing en die plaaslike gebied te verken. Dié span bestaan onder andere uit 'n argeoloog, ekoloog, voëlkenner en sosiale wetekenskaplike en sal die moontlike impak op die omgewing wat met die voorgestelde aktiwiteite verbind kan word, identifiseer en evalueer. Ondervinding wat die afgelope paar jaar met verskeie OAs opgedoen is, het getoon dat die impak op die omgewing redelik generies van aard kan wees. Dié impakte word op die volgende bladsy gelys. U is welkom om bykomende impakte onder die span se aandag te bring.

Environmental impact assessment process relevant to this study

Two separate EIAs will be conducted for the proposed transmission line servitude and substation. Eskom Transmission Division has appointed Margen Industrial Services as the Independent Environmental Consultant to conduct the EIAs. As agreed with the Department of Environmental Affairs & Tourism, these EIAs will be conducted simultaneously. A team of specialists has already conducted a site visit to gain a first-hand understanding of the programme and the surroundings and local conditions. This team includes an archaeologist, social scientist, ecologist/botanist and an avifaunal specialist. The study team will be identifying and evaluating the potential environmental impacts associated with the proposed activities, these include:

- Archaeologist: Dr Julius Pistorius
- Avifaunal studies : Dr Chris van Rooyen
- Ecology & Botany: Prof George Bredenkamp
- Social Impact Assessment: Ms Anita Bron

Generic environmental issues associated with transmission lines & transmission line infrastructure

Experience gained through undertaking EIAs on transmission lines and substations throughout South Africa in recent years has shown that there are certain environmental issues associated with the construction and operation of these activities. The issues are not site specific at this stage, but are submitted as an aid in identifying the environmental issues in the scoping phase of the study. I&APs are encouraged to identify additional issues and concerns and submit them to the Public Involvement Office for further consideration by the study team.

NATURAL ENVIRONMENT • Erosion • Impact on fauna • Impact on avifauna • Importation of alien vegetation • Impact of herbicides • Impact on conservation area • Poaching of fauna and flora • Impact of construction camps • Opportunities for ecological corridors	**WELL-BEING** • Electromagnetic fields (EMFs) • Safety of personnel and firefighters • Dust pollution • Noise pollution • HIV/Aids • International testing & norms • Fire potential	**ECONOMIC** • Regional support • Local benefits • Local opportunities • Tariffs • Job creation • Tourism
FARMING RELATED ISSUES • Access to properties • Access roads • Loss of agricultural potential • Season for construction activities	**SOCIAL** • Immigration of construction workers • Relocation of people • Construction camps	**ALTERNATIVES** • Strategic considerations • Alternative sources of power generation • Alternative alignments • Design alternatives
AESTHETICS • Visual impacts • Loss of sense of place	**CULTURAL AND ARCHAEOLOGICAL SITES** • Palaeontological sites • Cultural and historical sites	**LAND ISSUES** • Compensation • Property value reduction

The consultation and stakeholder involvement process

An important part of any EIA is public participation. Although the substation site has already been approved and the servitude negotiated with landowners, it is important to allow interested and affected parties the opportunity to have input into the environmental findings and recommendations. In addition to this background information document, **pbai (SA**), the public participation consultant for this project, will be meeting with key stakeholders and directly affected parties. These include the following:

- Provincial environmental authorities
- South African Heritage Resources Agency (SAHRA)
- Landowners
- The Dikgosi and tribal authorities
- Local government structures
- Business and industrial representatives
- Non-governmental organisations (including environmental organisations)

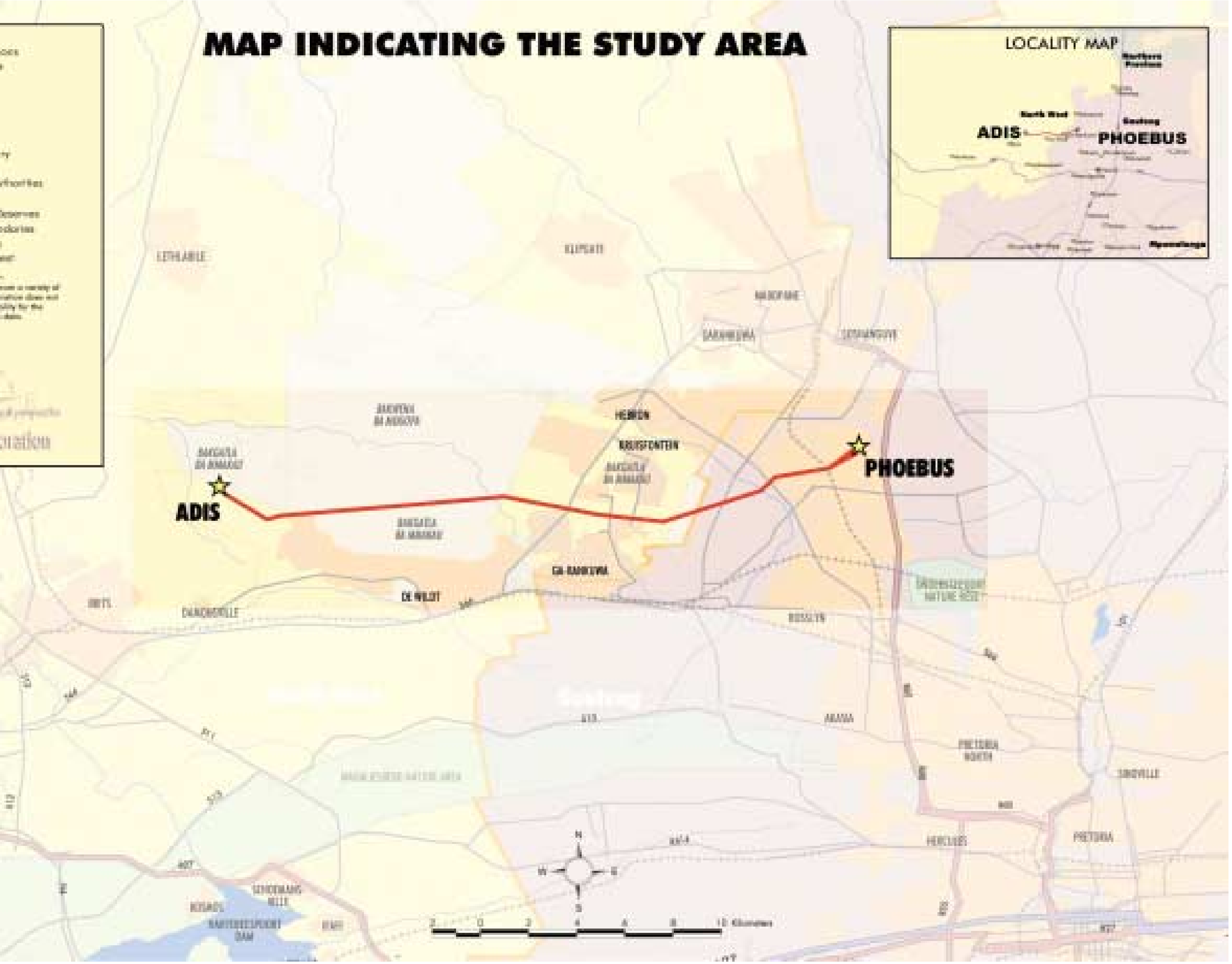
Adverts will be placed in the local media and the relevant environmental report will be made available at various venues when it becomes available. I&APs are invited to contact the Public Involvement Office for further information (contact details provided on front page).

Die konsultasie- en openbare deelnameproses

'n Belangrike aspek van enige OA-proses is die deelname van die publiek. Alhoewel die terrein vir die substasie reeds goedgekeur is en die serwituut met die grondeienaars onderhandel is, is dit belangrik om insethouers en belanghebbende en geaffekteerde partye die geleentheid te bied om aan die studie deel te neem. U word dus genooi om aan die OA-proses deel te neem ten einde meer inligting oor die projek te bekom en u is welkom om enige kwessies en aangeleenthede rakende die konstruksie van die beoogde transmissielyn en substasie te opper of aanhangig te maak. Die studiespan sal onder meer met die volgende groepe samesprekings hou:

- Provinsiale omgewingsowerhede (insluitende SAHRA)
- Grondeienaars
- Dikgosi en tradisionele owerhede
- Plaaslike regeringstrukture
- Besigheid-en nywerheidsgroepe
- Nie-regeringsorganisasies (insluitende omgewingsorganisasies)

Advertensies sal in die plaaslike media geplaas word en die relevante omgewingsverslae sal by verskeie publieke plekke beskikbaar gestel word sodra dit voltooi is. Belanghebbendes word genooi om die Publieke Betrokkenheidskantoor vir nadere inligting te skakel (inligting op bl 1).


MAP INDICATING THE STUDY AREA
LOCALITY MAP
ADIS
PHOEBUS
ADIS
PHOEBUS
HEBRON
GA-RANKUWA
DE WILDT
N
W
E
S
10 Kilometers

MEDIA

Newspaper	Date	Language	Size	Colour
Pretoria News	16/05/03	English	3 columns x 20cm	Black & White
Sowetan	16/05/03	English	3 columns x 20cm	Black & White
Beeld Pretoria	16/05/03	Afrikaans	3 columns x 20cm	Black & White
Pretoria Record North	20/05/03	English	3 columns x 20cm	Black & White
Brits Pos	16/05/03	Afrikaans	3 columns x 20cm	Black & White

Notice of an Environmental Assessment

Adis-Phoebus 400 kV Transmission Line & Adis Substation

To support the growing demand for electricity in the northwestern industrial area of the country, Eskom Transmission Division needs to both improve the reliability of the existing network and ultimately upgrade its capacity. Eskom Transmission Division is proposing the construction of a new substation near Brits and 400 kV Transmission line from this substation to Phoebus substation near Shoshanguve.

The Adis substation forms part of the completion of a previous Environmental Impact Assessment (EIA). The EIA for the Bighorn-Adis-Phoebus 400kV line and substations that extends from Rustenburg to Shoshanguve was conducted and environmental authorisation was awarded in June 1999. Since then the servitude of the preferred Transmission line route has been negotiated and the Bighorn – Adis section has been constructed. Due to the delay in constructing the remaining section, an EIA will now be conducted for the Adis – Phoebus Transmission line section and the Adis substation.

Environmental Impact Assessment Processes

Two separate EIAs will be conducted for the proposed Transmission line servitude and substation. Eskom Transmission Division has appointed Margen Industrial Services as the Independent Environmental Consultant to conduct the EIAs. As agreed with the Department of Environmental Affairs & Tourism, these EIAs will be conducted simultaneously.

Public Participation

To obtain further project information, stakeholders, landowners and interested, and affected parties are invited to participate in the EIA process by submitting their name and contact details to the **pbai (SA)**, the Public Involvement office (details below within 14 days of the publication of the advertisement. You are also invited to raise issues and concerns regarding the construction of the proposed Transmission line and substation.

pbai (SA)
P O Box 3300
Houghton, 2041

Contact Person:

Karin Bowler
Tel: (011) 486 4730 / 082 809 7624
Fax: (011) 646 5135
E-mail: pbai@iafrica.com

Kennisgewing van Omgewingstudies

Adis-Phoebus 400 kV Transmissielyn & Adis Substasie

Om vir die toenemende aanvraag na elektrisiteit na die industrielegebied in die noordweste van Suid-Afrika te voorsien, moet Eskom Transmissie Divisie die betroubaarheid van die bestaande netwerk verbeter én uiteindelik ook sy kapasiteit opgradeer. Eskom Transmissie Divisie is gevolglik van plan om 'n nuwe substasie naby Brits te bou asook 'n 400 kV Transmissielyn vanaf dié substasie na die Phoebus substasie naby Shoshanguve.

Die Adis substasie vorm deel van die voltooiïng van 'n vorige Omgewingsassessering (OA). Die OA vir die Bighorn-Adis-Pheobus 400kV lyn en substasie wat vannaf Rustenburg tot Shoshanguve strek is uitgevoer en omgewingsmagtiging is in Junie 1999 toegeken. Sedertdien, is die serwituut vir die voorgekeurde Transmissielynroete onderhandel en die Bighorn-Adis gedeelte is gebou. As gevolg van 'n vertraging met die konstruksie van die oorblywende gedeelte,moet 'n OA vir die Adis-Phoebus Transmissielyn en Adis substasie nou uitgevoer word.

Omgewingsassesseringsproses

Twee aparte OAs sal uitgevoer word; Eskom Transmissie Divisie het, soos omgewingswetgewing vereis, Margen Industrial Services as die Onafhanklike Omgewingskonsultant aangestel om die bogenoemde OA te onderneem. Soos ooreengekom met die Departement Omgewingsake en Toerisme, sal die twee OAs gelyktydig uitgevoer word.

Openbare deelname

Insethouers, grondeienaars en belanghebbende en geaffekteerde partye word genooi om aan die OA-proses deel te neem ten einde meer inligting oor die projek te bekom. Stuur asseblief u naam en kontakbesonderhede binne 14 dae na die plasing van hierdie advertensie aan pbai (SA), die Publiekbetrokkenheids-konsultant (kyk besonderhede hieronder). U is ook welkom om enige kwessies en aangeleenthede rakende die konstruksie van die beoogde Transmissielyn en substasie te opper of aanhangig te maak.

Pbai (SA)
Posbus 3300
Houghton, 2041

Persoon:

Karin Bowler
Tel: (011) 486 4730 / 082 809 7624
Faks: (011) 646 5135
Epos: pbai@iafrica.com

PRESS RELEASE

Issued to: As per attached list

Embargo: None

Subject : **Suggested Headline:**

EIA for improved electricity infrastructure underway

Attachment: A3 Colour map to assist with orientation of press release content

Issued By:
pbai (SA) (Public Involvement Consultant)
P O Box 3300
Houghton
2041

Telephone : 011 - 486 4730
Fax : 011 - 646 5135

E-Mail : pbai@africa.co.za

Contact : Karin Bowler

Begins.....

Pretoria – The environmental investigations for Eskom Transmission Division to improve the reliability of electricity supply to industry are underway.

To support the growing demand for electricity in the north-western industrial area of the country, Eskom Transmission Division needs to both improve the reliability of the existing network and ultimately upgrade its capacity. Eskom Transmission Division is proposing the construction of a new substation near Brits and 400 kV Transmission line from the substation to Phoebus substation near Shoshanguve.

However, Adis substation and the 28km 400 kV Transmission line are not entirely new developments: The strategic plan has been to upgrade the network to 400kV capability from the Matimba powerstation (near Ellisras), through the heavy industrial areas around Rustenburg, Brits and Tshwane. The network will ultimately follow through to link the 400kV network with the power stations in Mpumalanga, thereby enhancing the reliability of the supply to the area, and allowing for further growth in demand. To date the line through to Bighorn (Marikana) and the proposed Adis site has been completed, but is operating at 88kV to supply local industry in the Brits area. The establishment of the Adis Substation and extending the line to Phoebus will allow the network to operate at 400kV and improve both reliability and capacity of supply to the Rustenburg-Brits-Shoshunguve-Pretoria North areas.

2/…

Page 2/….

An Environmental Impact Assessment (EIA) for the Bighorn-Adis-Phoebus 400kV line and substations that extends from Rustenburg to Shoshanguve was conducted and environmental authorisation was awarded in June 1999. Since then the servitude of the preferred Transmission line route has been negotiated and the Bighorn – Adis section has been constructed. Due to the delay in constructing the remaining section, an EIA will now be conducted for the Adis – Phoebus Transmission line section and the Adis substation.

Two separate EIAs will be conducted for the proposed Transmission line servitude and substation. Eskom Transmission Division has appointed Margen Industrial Services as the Independent Environmental Consultant to conduct the EIAs. As agreed with the Department of Environmental Affairs & Tourism, these EIAs will be conducted simultaneously. A team of specialists has already conducted a site visit to gain a first-hand understanding of the proposed activities, the surroundings and local conditions. This team include*, inter alia* an archaeologist, social scientist, ecologist/botanist and an avifaunal specialist

An important part of any EIA is public participation. Although the substation site has already been approved and the servitude negotiated with landowners, it is important to allow interested and affected parties the opportunity to have input into the environmental findings and recommendations. Public input is strongly supported by Eskom Transmission Division itself. As John Geeringh, Eskom Transmission project manager explains; “it is both Eskom’s policy and philosophy to allow for meaningful public participation in all the EIAs conducted for our projects and we interact closely with the independent consultant appointed to run the public participation programme”.

In addition to a background information document that is available to the public, **pbai (SA**), the public participation consultant for this project, will be meeting with key stakeholders and directly affected parties. Also, the Draft Scoping Report is available for public viewing at the following venues: Akasia, Madibeng (Brits) and Tshwane Metropolitan municipal offices (reception area); Akasia Library(Karen Park), Modibeng Library (Brits, van Velden Street) and Bodibeng Library (Soshanguve, 1424, 1448 Block BB).

Contact Karin Bowler to register as an Interested and Affected Party and to obtain a copy of the background information document on 011-4864730, Fax: 011-646 5135 e-mail: pbai@iafrica.com.

Ends.

PERSVERKLARING

Uitgereik aan: Volgens aangehegte lys

Embargo: Geen

Onderwerp : **Moontlike opskrif:**

OA vir verbeterde elektrisiteitinfrastruktuur word tans onderneem

Aanhegsel: A3-kleurkaart om met oriëntering van inhoud van persverklaring behulpsaam te wees

Uitgereik deur: pbai (SA) (Openbare Deelname Konsultant)
Posbus 3300
Houghton
2041

Telefoon : 011 - 486 4730
Faks : 011 - 646 5135
E-pos : pbai@africa.co.za
Kontak : Karin Bowler

Begin.....

Pretoria – Die omgewingsondersoeke vir Eskom se Transmissie-afdeling om die betroubaarheid van elektrisiteitvoorsiening aan nywerhede te verbeter, word tans onderneem.

Ten einde aan die toenemende vraag na elektrisiteit in die industriële gebied in die noordweste van Suid-Afrika te voorsien, moet Eskom se Transmissie Divisie die betroubaarheid van die bestaande netwerk verbeter en uiteindelik ook sy kapasiteit opgradeer. Eskom se Transmissie Divisie beplan dus om ‘n nuwe substasie naby Brits, asook ‘n 400kV-transmissielyn vanaf dié substasie na die Phoebus-substasie naby Soshanguve, te bou.

Die Adis-substasie en die 28km 400kV-transmissielyn is nie heeltemal nuwe ontwikkelings nie. Die strategiese plan was om die netwerk se kapasiteit na 400kV op te gradeer. Dié netwerk strek van die Matimba kragstasie (naby Ellisras) deur die swaar nywerheidsgebiede in die omgewing van Rustenburg, Brits en Tshwane. Dié netwerk sal uiteindelik deurloop om die 400kV-netwerk by die kragstasies in Mpumalanga aan te sluit. Betroubare elektrisiteitsvoorsiening na dié gebied sal so verbeter word en derhalwe ook die groei in aanvraag. Die 400kV-lyn vanaf Bighorn (naby Marikana) tot by die voorgestelde Adis-terrein is reeds voltooi, maar word teen 88kV bedryf om die plaaslike nywerhede in die Brits-omgewing van krag te voorsien. Die oprigting van die Adis-substasie en die verlenging van die lyn tot by Phoebus sal beteken dat die netwerk teen 400kV bedryf kan word en die betroubaarheid en kapasiteit van die toevoer na die Rustenburg-Brits-Soshanguve-Pretoria Noord-gebiede sal dus verbeter word. 2/…

Bladsy 2/….

Die OA vir die Bighorn-Adis-Phoebus 400kV-lyn en substasie wat vanaf Rustenburg tot by Soshanguve strek, is gedoen en omgewingsmagtiging is in Junie 1999 toegeken. Sedertdien is die serwituut vir die voorgekeurde transmissielynroete onderhandel en die Bighorn-Adis-gedeelte gebou. Weens die vertraging in die konstruksie van die oorblywende gedeelte, moet ‘n OA vir die Phoebus-transmissielyn en Adis-substasie nou onderneem word.

Twee afsonderlike OAs sal vir die voorgestelde transmissielynserwituut en substasie onderneem word. Eskom se Transmissie Divisie het Margen Industrial Services aangestel om die OAs te onderneem. Soos met die Departement van Omgewingsake & Toerisme ooreengekom is, sal die twee OAs gelyktydig uitgevoer word. `n Span spesialiste het reeds `n terreinbesoek onderneem om eerstehandse kennis oor die voorgestelde aktiwiteite, die omgewing en plaaslike toestande in te win. Dié span bestaan onder andere uit `n argeoloog, sosiale wetenskaplike, ekoloog/plantkundige en voëlkundige.

`n Belangrike aspek van enige OA-proses is die deelname van die publiek. Alhoewel die terrein vir die substasie reeds goedgekeur is en die serwituut met die grondeienaars onderhandel is, is dit belangrik om insethouers en belanghebbende en geaffekteerde partye die geleentheid te bied om aan die studie deel te neem. Insette deur die publiek word sterk deur Eskom seTransmissie Divisie self gesteun. Soos John Geeringh, Eskom Transmissie Divisie se projekbestuurder verduidelik, “Dit is beide Eskom se beleid en filosofie om ruimte vir betekenisvolle publieke deelname te laat in al die OAs wat vir ons projekte onderneem word en ons skakel nou met die onafhanklike konsultant wat aangestel is om die program vir publieke deelname te bestuur”.

Benewens `n inligtingsdokument ter agtergrond wat vir die publiek beskikbaar is, sal **pbai (SA**), die publieke deelname konsultant, ook ontmoetings reël met sleutelbelanghebbendes en partye wat direk geaffekteer word. Die konsep ondersoekverslag (Scoping Report) is ook by verskeie publieke plekke beskikbaar gestel sodat belanghebbendes dit kan nagaan; Akasia, Madibeng (Brits) en Tshwane Metropolitanse munisipale kantore (ontvangs); Akasia (Karen Park), Modibeng (Brits, van Velden Street) and Bodibeng (Soshanguve, 1424, 1448 Block BB) biblioteke.

Om as `n Belanghebbende en Geaffekteerde Party te registreer en `n afskrif van die inligtingsdokument ter agtergrond te bekom, kontak Karin Bowler by 011-4864730, Faks: 011-646 5135, e-pos: pbai@iafrica.com.

Einde.

Environmental Assessment Process

Adis-Phoebus 400 kV Transmission Line & Adis Substation

Availability of a Scoping Report

To support the growing demand for electricity in the northwestern industrial area of the country, Eskom Transmission Division needs to both improve the reliability of the existing network and ultimately upgrade its capacity. Eskom Transmission Division is proposing the construction of a new substation near Brits and 400 kV Transmission line from this substation to Phoebus substation near Soshanguve.

The Adis substation and Adis-Phoebus 400kV Transmission line forms part of the Bighorn-Adis-Phoebus 400 kV line & substation network that extends from Rustenburg to Soshanguve.

As agreed with the Department of Environmental Affairs & Tourism, separate EIAs for the Adis – Phoebus line and Adis Substation were conducted simultaneously by Margen Industrial Services, the independent environmental consultant. The findings were published in separate Draft Scoping Reports and released for public comment. Amendments to the reports incorporate comments from key stakeholders and the Final Scoping Reports are now available for public perusal. Copies will be placed at various libraries in the study area. These are listed below and will be available from 20 June 2003.

Akasia Library (Karen Park), Modibeng Library (Brits, van Velden Street) and Bodibeng Library (Soshanguve, 1424, 1448 Block BB).

For further information contact Karin Bowler on
Tel: (011) 486 4730,
Fax: (011) 646 5135
E-mail: pbai@iafrica.com

SCHEDULE OF PROPERTY AND INFRASTRUCTURE CROSSINGS

Grid Reference	Chainage of change of property owner (km)	Property name & Portion number	Length of line in property (m)	Property Owner	Notary and Reference Number	Contact Address	Landscape (flat, gentle slope, undulating, etc.)	Vegetation type & density	Type of farming	Graves and Archeological sites	Line Crossing Chainage (km)	Line Crossings	Grid Ref
I7	0	Roodekopjes / Zwartkopjes 427 JQ	230								0	Start of line (Addis)	I7
J8	2.3	Portion 91 of the farm Elandsfontein 440 JO	650	Provincial Government of the North-West Province	Louis Kuyler: 7/8/2/1-PTN 266 (PTN/PTN-65) RIETGAT TRC	Head of Department, Department of Local Government Housing, Planning and Development, North West Province, Private Bag X2099, Mmabatho, 2735					2.3	"Other" road and 2 power lines (bend)	J8
K7	2.95										2.95	Secondary road and foot path	K7
K7	2.95	Hoekfontein 432 JQ	8400	National Government of the RSA	Adriaan Johan Coetzee: AT6/5/6/2/J/B10/25	Director - General, Department of Land Affairs, Private Bag X833, Pretoria, 0001					4.65	Water course	L7
											5.75	Water course	M7
											7	Water course	N7
											7.7	Water course	O7
											8.85	Water course	P7
R7	11.35										10.6	Water course	Q7
R7	11.35	Remaining extent of ptn 2 of the farm Sjambok Zijn Oude Kraal 258 JR	5840	North-West Province	Ronelle Liebenberg: 7/8/2/1-Ga-Rankuwa	The Deputy Director General Department of Local Government Housing, Planning and Development, Noth West Province, Private Bag X2099, Mmabatho, 2735					11.4	Road and existing power line (bend)	R7
											11.75	Railway / service line	R7
											11.9	"Other" road and existing power line	R7
											13.9	Secondary road	T7
											14.1	Water course	T7
											15.15	Water course	U7
											15.25	Water course	U7
V8	17.19										16.95	Existing power line	V8
V8	17.19	Portion 4 of Sjambok Zijn Oude Kraal 258 JR	760	Various individual property owners							17.55	(bend)	V8 / W8
W8	17.95												
W8	17.95	Remaining extent of ptn 1 of the farm Sjambok Zijn Oude Kraal 258 JR	820	Bakgatla-Ba-Makau Tribe	Helen Blignaut: AT6/5/6/2/H/P2/3	Director, Department of Land Affairs, Private Bag X833, Pretoria, 0001					18.75	Water course	W7
W7	18.77												
W7	18.77	Remaining extent of Portion 5 (a portion of portion2) of the farm Klipfontein 268 JR	340	RSA on trust for the Bakgatla-Ba-Makau Tribe	Adriaan Johan Coetzee: AT6/5/6/2/H/W5/1	Director - General, Department of Land Affairs, Private Bag X833, Pretoria, 0001							
X7	19.11										18.9	Provincial Boundary	W7 / X7
X7	19.11	Portion 17 of the farm Klipfontein 268 JR	220		Ronelle Van Wyk: AT6/5/6/2/H/P2/23	Director - General, Department of Land Affairs, Private Bag X833, Pretoria, 0001							
X7	19.33												

X7	19.33	Remaining extent of Portions 6 & 7 (a portion of portion2) of the farm Klipfontein 268 JR	640	City Council of Pretoria	William Albert Brown Van der Walt	Northern Pretoria Metropolitan Substructure P.O. Box 58393 Karenpark 0118					19.6	Water course	X7
											19.925	Road	X7
X7	19.97												
X7	19.97	Klipfontein 268 JR Various different portions	4330	Northern Pretoria Metropolitan Substructure	Marlene Mathey	Northern Pretoria Metropolitan Substructure P.O. Box 58393 Karenpark 0118					20.175	Small road	X7
											21.075	Small road	Y7
											21.225	Small road	Y7
											21.575	Bend	Y7 / Z7
											21.875	Road	Z7
											22.075	Small road	Z6
											22.375	bend & water course	Z6
		Kruisfontein 262 JR									22.6	Small road & water course	Z6
											22.7	Water course	Z6
											22.82	Small road	Z6
											23.12	Small road	AA6
											23.62	Small road & water course	AA6
											24.17	Railway line	AA6
AA6	24.3												
AA6	24.3	Remainder of portion 3 of the farm Kruisfontein 262 JR	670	Soshanguve South Development Company (Pty) Ltd	Amanda de Wet	Soshanguve South Development Company (Pty) Ltd P.O. Box 1687 Rivonia 2128					24.42	Bend	AB6
											24.57	Water course	AB6
AB6	24.97										24.67	Existing power line	AB6
AB6	24.97	Remainder of the farm Wentzelrust 223 JR	800										
AB5	25.77										25.77	End of line (Phoebus)	AB6

Deleted			
Private, Position: Landowner			
DEDNAM HEDRE MS	PO Box 3765, Brtis, 0250	T:, F:, C:083 504 5811, E:hedre1@hotmail.com	
CallDate	**From**	**ActionType**	**CorrespondType**
27-05-03		General Correspond	Telephone conversation
Phoned in with the following question - Wants to know were the Substation will be situated.			
27-05-03	ns	General Correspond	Telephone conversation
Ms Natahalie Smal left a message on her cell to phone back.			
30-05-03	kb	General Correspond	Telephone conversation
Discussion with Ms Dednam. Issues recorded on e-mail.			
02-06-03	kb	General Correspond	E-mail send
From: Karin Bowler To: Hedre1@hotmail.com CC: Moses, Cecilly Sent: 02 June 2003 Subject: Eskom Transmission EIA-Adis Substation (project 236) Good morning Mrs Dednam As agreed, this e-mail serves to confirm the content of our discussion on Friday 30th May 2003 1. The proposed Adis Stubstation will be built on 36ha of the Farm Roodekopjes of Zwartkopjes 427 JQ. The property belongs to the Madibeng (Brits) municipality and is situated just south of Rankotia. 2. Your farm, Gedeelte 37, Klipkop, is situated well outside the study area, and is not on the 1:50 000 maps (2527DB Brits). As indicated by you, your farm is on the boundary of the Kleinfontein Farm near the Thabazimbi Road. 3. You indicated that there is already a Transmission line which was built on your property about two years ago. (After consulting with my colleagues, it is most likely that this line forms part of the Bighorn - Adis - Phoebus line. As explained, the other part of this project is the Adis - Phoebus Transmission line; the Bighorn - Adis section will feed into the Adis - Phoebus line. This is indicated on Map 3 which is being sent to you by mail. 4. I sending you an information package containing the Background Information Document, a study area map and Map 3, which indicates the proposed site of the Adis substation. 5. You have also requested that you would not like to receive any further information on this project. We will therefore move your name to the "Deleted" section of the database. Thank you for responding to the advert in the Britspos. Should you have any further queries, however, please do not hesitate to contact me. Regards Karin Bowler			
02-06-03	kb	General Correspond	Telephone conversation
Ms Dednam requested to be deleted from the database - Moved to deleted sector.			
02-06-03	kb	General Correspond	Post send
Info package posted included the following: 1. Background information document. 2. Study area map. 3. Substation map.			
02-06-03	cp	General Correspond	Telephone conversation
Left a message on her cell that her e-mail address is not working.			
06-06-03	cp	General Correspond	Telephone conversation
Left message on cell for confirmation that information and e-mail was received.			
09-06-03	cp	General Correspond	Telephone conversation
Left a message on her cellphone to please confirm that she has received the information as her e-mail address is not working.			
Environmental			
DCSD-SA - Business Councill for Sustainable Development - South Africa (Industrial Environmental Forum for SA), Position: Manager			
SIMMONDS JESSICA MS	PO Box 1184, Saxonworld, 2132	T:011 447 9172, F:011 447 0848, C:082 413 3825, E:jessica@ief.co.za / bcsd@ief.co.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**

16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
22-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop. Wants to be kept informed.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
28-05-03		1st KS Workshop	E-mail received
E-Mail failure. Phoned to confirm e-mail address. Resend.			
29-05-03	kb	1st KS Workshop	E-mail send
Resend with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Environmental			
WESSA - Wildlife and Environmental Society of South Africa - North West, Position: Manager			
BARTMAN STUART MR	PO Box 44344, Linden, 2104	T:011 462 8880, F:011 462 8364, C:, E:stuartb@tpdc.co.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
22-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop , referred me to Ms Sue Litard who also can't attend.			

28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Environmental			
WESSA - Wildlife and Environmental Society of South Africa - Northern, Position: Manager			
LITARD SUE MS	, ,	T:011 462 5663, F:011 462 8364, C:082 595 8775, E:info@wessanorth.co.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
22-05-03		1st KS Workshop	Workshop apologies
Mr Stuart Barnand referred me to Ms Sue Litard to attend the workshop for him. Unfortunately Ms Sue Litard can't attend, but requested the Meeting Notes.			

22-05-03	kb	1st KS Workshop	Workshop invite
Will not be attending the workshop for Mr Stuart Barnard. Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
29-05-03	kb	1st KS Workshop	E-mail send
Resend with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
30-05-03		1st KS Workshop	E-mail received
receipt confirmed.			
Govt Local			

CTMM - Tshwane Municipality Environmental Health Region 1, Position: Senior Evironmental Health Practitioner			
MATSOBANE THABO MR	PO Box 119-1465, Rosslynn, 0200	T:012 521 8166, F:012 542 2759, C:082 896 0980, E:helenro@tshwane.gov.za	LO
CallDate	**From**	**ActionType**	**CorrespondType**
23-05-03	kb	1st KS Workshop	Attendance Register
Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.			
22-05-03	kb	1st KS Workshop	Workshop invite
Will be attending the workshop for Ms Florence Nkuna. Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
28-05-03		1st KS Workshop	E-mail received
E-Mail Failure. Phoned to confirm e-mail address. Resend.			
03-06-03		1st KS Workshop	E-mail received
E-Mail Failure. Phoned to confirm e-mail address. Resend and fax Minutes.			
05-06-03		1st KS Workshop	E-mail received
E-Mail Failure. Phoned to confirm e-mail address. Resend.			
05-06-03	kb	1st KS Workshop	E-mail send
Resend with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
06-06-03		1st KS Workshop	E-mail received
Confirmed e-mail. From: Helen Roets To: pbai Sent: 06 June 2003 11:36 Subject: RE: Attenion: Thabo - Minutes of Key Stakeholder Meeting - Eskom's Adis-Phoebus line Baie Dankie, ek het dit uiteindelik ontvang.			

Sal dit vir Thabo deurgee.

Thanx
Helen

06-06-03	kb	1st KS Workshop	E-mail send

Resend with the following documents:
1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00.
2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00.
3. Summary Document of Draft Scoping Report Transmission Line.
4. Summary Document of Draft Scoping Report Substation.

Govt Local			
CTMM - Tshwane Municipality Environmental Health Region 3, Position: Town Planner			
KOSTER HANNES MR	PO Box 58393, Karen Park, 0118	T:012 521 8138, F:012 521 8188, C:, E:hannesko@tshwane.gov.za	LO
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite

Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room). Will also be attending in Mr Pieter de Haas's place.

21-05-03	kb	Landowner Consultation	By Hand

By Hand
Attention: Mr Hannes Koster
20 May 2003

Dear Mr Koster
Re: ENVIRONMENTAL IMPACT ASSESSMENT – LANDOWNER CONSULTATION
ADIS – PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION

Eskom Transmission is currently investigating the construction of a new 400 kV transmission line from a proposed sub-station called Adis (near Brits) to Phoebus substation (near Soshanguve). The establishment of the Adis Substation and extending the line to Phoebus will allow the network to operate at 400kV and improve both reliability and capacity of supply to the Rustenburg-Brits-Shoshunguve-Pretoria North areas.In line with environmental legislation, Eskom Transmission Division has appointed Margen Industrial Services (CC) (Margen)as the Independent Environmental Consultant to conduct the Environmental Impact Assessment (EIA) study for the proposed power line servitude and substation.

As with many projects conducted within business spheres, the timeframes for conducting this Study place a deal of emphasis on a robust public consultation process. Pbai (SA) has been appointed to assist Margen with the Public consultation. As a landowner that has a signed a “Deed of Servitude” for the Transmission line, your department has to be directly consulted with and we have identified you as the relevant official with whom to correspond. In terms of the Deed, information should be sent to you via registered mail. However, in view of the tight time frames of this study, the following action has been taken:

> A copy of the original Deed of Servitude and map for:
< Portions of the farm Kruisfontein 262 JR
< Portions of the farm Klipfontein 268 JR
> And the study Background Information Document (BID) is included in this package which will be handed to you on 23rd May 2003. This package should in turn be given to the relevant officer as indiciated on the envelope provided.

For further information, contact the Public Involvement Officer:
Mrs Karin Bowler Tel: 011 486 4730 / 082 809 7624
Pbai (SA) Fax: 011 646 5135
PO Box 3300 Email : pbai@iafrica.com
Houghton 2041
Yours sincerely,
Karin Bowler
Public Involvement Programme Leader

ENVIRONMENTAL IMPACT ASSESSMENT – LANDOWNER CONSULTATION
ADIS – PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION
ACKNOWLEDGEMENT OF RECEIPT OF DOCUMENTS
I _____ FROM _____
(Full Name & Surname) (Organisation)
IN MY POSITION AS _____
(Official title)
HEREBY ACKNOWLEDGE RECEIPT OF THE DOCUMENTS TO BE HANDED TO
_____

Included in the envelope is the following:
> A copy of the Deed of Servitude (including the original map)
> A Background Information Document detailing the Adis-Phoebuse EIA.

_____
(Signature) (Date)

23-05-03		1st KS Workshop	Attendance Register

Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.

28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Local			
Madibeng Municipality (Brits), Position: Town Planner			
TSOTSETSI MORUTI MR	PO Box 106, Brits, 0250	T:012 318 9529, F:012 318 9203, C:, E:madibeng@icon.co.za	LO
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			

21-05-03	kb	Notification EIA	By Hand

By Hand to Mr Tsotsetsi
Registered Mail
Attention: Mr Iqbal Motala
20 May 2003

Dear Mr Motala
Re: ENVIRONMENTAL IMPACT ASSESSMENT – OFFICIAL NOTIFICATION TO LANDOWNERS
ADIS – PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION

Eskom Transmission is currently investigating the construction of a new 400 kV transmission line from a proposed sub-station called Adis (near Brits) to Phoebus substation (near Soshanguve). The establishment of the Adis Substation and extending the line to Phoebus will allow the network to operate at 400kV and improve both reliability and capacity of supply to the Rustenburg-Brits-Shoshunguve-Pretoria North areas. In line with environmental legislation, Eskom Transmission Division has appointed Margen Industrial Services (CC) (Margen)as the Independent Environmental Consultant to conduct the Environmental Impact Assessment (EIA) study for the proposed power line servitude and substation.

As with many projects conducted within business spheres, the timeframes for conducting this Study place a deal of emphasis on a robust public consultation process. Pbai (SA) has been appointed to assist Margen with the Public consultation. As a landowner that has a signed a "Deed of Servitude" for the Transmission line, your department has to be directly consulted with and we have identified Moruti Tsotsetsi (Madibeng Municipality) as the relevant official with whom to correspond. In terms of the Deed, information should be sent to you via registered mail. However, in view of the tight time frames of this study the following action has been taken:

> A copy of the original Deed of Servitude and map for:
< Portion 91 of the farm Elandsfontein 440 JO
< Remaining extent of portion 2 of the farm Sjambok Zijn Oude Kraal 258 JR
> As well as the study Background Information Document (BID) is included in this package which is being sent by registered mail
> Moruti Tsotsetsi of Madibeng Municipality (Tel No: (018) 318 9529) has been invited to attend a Key Stakeholder Workshop on 23rd May 2003 to raise issues and to comment on the Draft Scoping Report.

For further information, contact the Public Involvement Officer:
Mrs Karin Bowler — Tel: 011 486 4730
Pbai (SA) — Fax: 011 646 5135
PO Box 3300 — Email : pbai@iafrica.com
Houghton 2041
Yours sincerely,
Karin Bowler
Public Involvement Programme Leader
CC: Moruti Tsotsetsi
Madibeng Municipality
P.O. Box 106, Brits, 0250 By Hand

22-05-03		1st KS Workshop	Workshop apologies
Will not be attending.			
29-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
29-05-03		Notification EIA	Fax Received
From: Department Of Developmental Local Government And Housing North West Province Private Bag X2099 Mmabatho 2735 To: Pbai (SA), PO Box 3300, Houghton, 2041 For attention: Karin Bowler Fax number: (011) 646 5135			

Dear Ms Bowler

ENVIRONMENTAL IMPACT ASSESSMENT - OFFICIAL NOTIFICATION TO LANDOWNERS
ADIS - PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION

I refer to your letter dated 20 May 2003 in the above regard and acknowledge receipt of the documents as interested and affected party to the process.

We agree to the representation of Mr Moruti Tsotsetsi of Madibeng Municipality at the Stakeholder workshop but would appreciate it if all correspondence and/or documentation could also be sent to Mrs Irene Sinovich of this Department for notification.

Your assistance in this regard is appreciated.

Kind regards
MI MOTALA
DEPUTY DIRECTOR GENERAL
DATE: 29-05-03

31-05-03		1st KS Workshop	E-mail received
E-Mail failure.			
Govt Local			

Madibeng Municipality (Brits), Position: Town Planner Manager			
DE KLERK JEFF MR	, ,	T:012 318 9243, F:012 318 9234, C:, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
22-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop, but will send Mr Johan Barnard in his place, but he is sick. Then referred me to Ms Pumza Letsoalo, who said she will find somebody to attend the workshop. Mr L.C. Eichstadt will attend on his behalf.			
27-05-03	ns	General Correspond	Fax send

To: Jeff de Klerk
Company: Madibeng Municipality
Fax number: (012) 318 9234
From: Nathalie Smal
Date: 27/05/2003
Job no / Reference no: 236
Total number of sheets, including this one: 2

SUBJECT: LANDOWNERS OF THE PROPOSED ADIS SUB-STATION SITE

Dear Mr de Klerk

Attached please find a map showing the proposed Adis sub-station site.

As discussed with you earlier this morning, it would be of great assistance to us if you could send us information regarding the landowners for this site. Unfortunately, the only other information I have regarding this area is a drawing produced by Eskom some years ago, showing the proposed route for the transmission line. On this drawing there are three or four sub-divisions of the bigger farm (Zwartkopjes) visible, but no division names are given to these farms where the site is proposed. However, the name Matebeleng does appear in one section, but I am not sure as to whether this is the name of the property, area or something else.

If I manage to gather more information I will send it through to you immediately. If you have any further queries please do not hesitate to contact me at the above number or on my cell at 082 780 4843. You are also welcome to e-mail me at nsmal@iafrica.com.

Thank you for you assistance, it is greatly appreciated.
Kind regards
Nathalie Smal

Govt Local			
Madibeng Municipality (Brits), Position: Town Planner Manager			
EICHSTADT L.C. MR			
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Would have attended on his colleagues' behalf. No invitation was sent.			
Govt Local			
Madibeng Municipality, Position:			
BARNARD JOHAN MR	, ,	T:, F:, C:, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
22-05-03	kb	1st KS Workshop	Workshop invite
Will not be attending the workshop for Mr Jeff de Klerk as he is sick. Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
22-05-03		1st KS Workshop	Workshop apologies

Will not be attending the workshop for Mr Jeff de Klerk as he is sick.			
Govt Local			
Madibeng Municipality, Position:			
LETSOALO PUMZA MS	, ,	T:012 318 9273, F:, C:, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
22-05-03		1st KS Workshop	Telephone conversation
Mr Jeff de Kerk referred me to Ms Pumza Letsoalo to attend the workshop for him, she can't attend, but will try to find somebody else.			
22-05-03	kb	1st KS Workshop	Workshop invite
Will not be attending the workshop for Mr Jeff de Klerk, but will try to find somebody else. Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
Govt Local			
Tshwane Municipality Environment Health, Position: Environmental Planning Manager			
WHEELER MICHELLE MS	PO Box 1454, Pretoria, 0001	T:012 308 8846, F:012 308 8934, C:, E:wheeler.michelle@tshwane.gov.za	LO
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
22-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop as they have resource constraints. Resend the invitation fax on 22 May 2003.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Local			
Tshwane Municipality Environmental Health Region 1, Position: Acting Deputy Manager			
NKUNA FLORENCE MS	PO Box 58393, Karenpark, 0118	T:012 521 8172, F:012 542 2759, C:083 258 0650, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
22-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop, but will send Mr Thabo Matsobane in her place.			
Govt Local			
Tshwane Municipality Environmental Health Region 1, Position: Acting Town Planner Manager			
DE HAAS PIETER MR	PO Box 58393, Karen Park, 0118	T:012 521 8124, F:012 521 8188, C:, E:pieterdh@tshwane.gov.za	LO
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
21-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop, but will send Mr Hannes Koster in his place.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Local			
Tshwane Municipality Environmental Health Region 1, Position: Town Planner			
VISSER JOHAN MR	, ,	T:, F:012 521 8188, C:, E:johanvi@tshwane.gov.za	LO
CallDate	**From**	**ActionType**	**CorrespondType**
20-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
20-05-03		1st KS Workshop	Workshop apologies
Will not attend as the line is not in his area.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Local			

Tshwane Municipality Environmental Health Region 2, Position: Town Planner Manager			
LE ROUX JEAN MR	PO Box 3242, Pretoria, 0001	T:012 308 7937, F:012 308 8082, C:, E:jeanlr@tshwane.gov.za	LO
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
22-05-03		1st KS Workshop	Telephone conversation
Left several messages on his answering machine, but no reponse.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt National			
Spoornet, Position: Chief Administrator			
MTSENGA PATRICK MR	PO Box 1276, Joubert Park, 2044	T:011 774 3201, F:011 773 5450, C:, E:MtsengaP@transnet.co.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
21-05-03	kb	1st KS Workshop	Workshop invite
Will be attending the workshop for Mr Frans Mashiane. Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
23-05-03		1st KS Workshop	Workshop apologies
Attention, Mrs Karin Bowler Name of company, ESKOM PRETORIA Your Fax No:(011) 646-5135, Your Tel NO:(011)846-4730 From: N.P. Mtsenga Date: 2003 - 05 - 23 My Fax No:(011) 773-5450, My Tel No:(011) 774-3201 Page No.1 of 6 My Reference No: S.T/I/COA/NsumbuSCI/ My e-mail address: MtsengaP@Transnet.co.za WORKSHOP: ENVIRONMENTAL IMPACT ASSESSMENT Your fax dated 20 May 2003 refers. After having confirmed to attend the workshop, it is with regret to inform you that due to unforeseen circumstances won't be able to attend anymore. The attached documents are for your information. Your understanding to this regard is appreciated. Kind regards Nsumbulana Patrick Chief Admin Officer (Administration) Attached Documents: PROPNET Professional Property Services, Property Register Information for: SARCC. Government Gazette Vol 298 No. 1237.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
28-05-03		1st KS Workshop	E-mail received
E-Mail failure. Phoned and confirmed e-mail address. Resend.			
03-06-03		1st KS Workshop	E-mail received

E-Mail delivery failed. 2nd time that this e-mail failed. Phoned Mr Patrick Mtsenga - send him a fax of the minutes only.			
03-06-03	kb	1st KS Workshop	E-mail send
Resend e-mail on 03 June 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
05-06-03	kb	1st KS Workshop	Fax send
Send fax with the Minutes of the Key Stakeholder Workshop 23 May 2003. Confirmed receipt.			
Govt National			
Spoornet, Position: Junior Manager			

MASHIANE FRANS MR	PO Box 1276, Joubert Park, 2044	T:011 773 8232, F:011 773 5450, C:083 400 7699, E:fransm@spoornet.co.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
21-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop, but will send Mr Patrick Mtsenga in his place.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Provincial			
DME-G - Department of Mineral and Energy - Gauteng, Position: Director of Environment Section			
MATHIPENG ASAPH MR	P/Bag X 59, Braamfontein, 2710	T:011 358 9774, F:011 339 1858, C:082 446 6026, E:asaph@mejhb.pwv.gov.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
21-05-03	kb	1st KS Workshop	Workshop invite
Will be attending the workshop for Mr Andre Cronje. Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
26-05-03		1st KS Workshop	Workshop apologies
Mr Asaph Mathipeng phoned on the 26th to apologise for not attending the meeting as he was too late. He requests that we send him the meeting notes.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Provincial			
DME-G - Department of Mineral and Energy - Gauteng, Position: Regional Director			
CRONJE ANDRE MR	P/Bag X 59, Braamfontein, 2710	T:011 358 9757, F:011 339 1858, C:, E:jhbhvg@mejhb.pwv.gov.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
21-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop, but will send Mr Asaph Mathipeng in his place.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			

Govt Provincial			
DME-NW - Department of Mineral and Energy - North West, Position: Inspector of Machinery			
MATLOU MARCUS MR	PO Box 150, Tlhaeane, 0309	T:014 565 6417, F:014 565 6424, C:082 465 4345, E:matlou@melks.nwp.gov.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Attending the workshop in Mr Kennedy Moagi's place. Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
23-05-03		1st KS Workshop	Attendance Register
Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.			
Govt Provincial			
DME-NW - Department of Mineral and Energy - North West, Position: Regional Director			
MOAGI KENNEDY MR	P/Bag A1, Klerksdorp, 2570	T:018 464 1631, F:018 462 9039, C:, E:kennedy@mekls.nwp.gov.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			

19-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop, but will send Mr Marcus Matlou in his place.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Provincial			
SAHRA - South Africa Heritage Resource Agency - Gauteng, Position: Assistant Manager			
KITTO JENNIFER MS	PO Box 87552, Houghton, 2041	T:011 482 8365, F:011 482 8196, C:, E:jkitto@jhb.sahra.org.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Will be attending the workshop in Mr Thabo Kgomommu's place. Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Provincial			
SAHRA - South Africa Heritage Resource Agency - Gauteng, Position: Cultural Officer			
KHUMALO VUSI MR	PO Box 87552, Houghton, 2041	T:011 482 8365, F:011 482 8196, C:, E:vkhumalo@jhb.sahra.org.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Will be attending the workshop in Mr Thabo Kgomommu's place. Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
23-05-03		1st KS Workshop	Attendance Register
Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.			

27-05-03	sd	General Correspond	E-mail send
Send the following information. 1. Map 7.1 2. Map 7.2 3. App F Transmission Line - Archaeology			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Provincial			
SAHRA - South Africa Heritage Resource Agency - Gauteng, Position: Provincial Manager			
KGOMOMMU THABO MR	PO Box 87552, Houghton, 2041	T:011 482 8365/ 6/ 7, F:011 482 8196, C:, E:tkgomommu@jhb.sahra.org.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
16-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop, but will send Ms Jennifer Kitto and Mr Vusi Khumalo.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Provincial			
SAHRA - South Africa Heritage Resource Agency - North West, Position: Provincial Manager			
NOVEMBER NTSIZI MR	PO Box 3054, Mmabatho, 2735	T:018 381 2032, F:018 381 6953, C:083 411 4520, E:sahra.nw1@iafrica.com	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
23-05-03		1st KS Workshop	Attendance Register
Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.			
27-05-03	sd	1st KS Workshop	E-mail send
Send the following information. 1. Map 7.1 2. Map 7.2 3. App F Transmission Line - Archaeology			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
28-05-03		1st KS Workshop	E-mail received
E-Mail failure. Phoned to confirm e-mail. Resend.			
29-05-03	kb	1st KS Workshop	E-mail send
Resend with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
30-05-03	kb	1st KS Workshop	E-mail send
Resend e-mail with the following documents: 1. Summary Document of Draft Scoping Report Transmission Line. 2. Summary Document of Draft Scoping Report Substation.			
30-05-03		1st KS Workshop	Telephone conversation
Couldn't open zip files. Resend without zip.			
Landowners			
Bakgatla BaMakau Tribe, Position: Landowner			
MOTSEPE KGOSI, S. P. MR	PO Box 83, De Wildt, 2051	T:, F:, C:, E:	
CallDate	**From**	**ActionType**	**CorrespondType**
28-05-03	mm	General Correspond	By Hand
The Secretary 28 May 2003 Bakgatla BaMakau Tribal Authority P. O. Box 83			

De Wildt
2051

ATTENTION: KGOSI S. P. MOTSEPE

Dear Honorable Kgosi Motsepe

RE: BACKGROUND INFORMATION DOCUMENT ON THE PROPOSED ADIS SUBSTATION AND ADIS-PHOEBUS 400 KV TRANSMISSION LINE.

My telephone discussion with Kgosi Motsepe today refers:

ESKOM TRANSMISSION DIVISION is proposing to construct a substation near Brits and a transmission line between this substation and Phoebus substation in Soshanguve. Since Bakgatla BaMakau Tribal Authority is one of the property/land owners in the study area, it is therefore considered to be the affected party.

During our telephone discussion, Kgosi Motsepe indicated to me that he could not be able to have a briefing session with me on these projects because he was attending to other work related matters in Mmabatho until the 19 June 2003. Thus it was agreed that relevant information documents be forwarded to the Tribal Authority offices and written response will be forwarded back.

To give you information about these projects, Background Information Document is herewith enclosed. You are therefore requested to consider the information given and if necessary give a comment, raise concerns or issues relevant to the projects.

You can complete the enclosed questionnaire and forward it to the given contact details. The comment period ends on the 06 June 2003.

Your participation in the projects is highly appreciated.

Yours faithfully
Moses Mahlangu
082 854 9538

Landowners			
DLA - Department of Land Affairs, Position: Deirector General			
MAYENDE G.P. MR	P/Bag X 833, Pretoria, 0001	T:012 312 8911, F:, C:, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
21-05-03	kb	Notification EIA	Post send

Registered Mail
Attention: Mr G.P. Mayende
20 May 2003

Dear Mr Mayende
Re: ENVIRONMENTAL IMPACT ASSESSMENT – OFFICIAL NOTIFICATION TO LANDOWNERS
ADIS – PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION

Eskom Transmission is currently investigating the construction of a new 400 kV transmission line from a proposed sub-station called Adis (near Brits) to Phoebus substation (near Soshanguve). The establishment of the Adis Substation and extending the line to Phoebus will allow the network to operate at 400kV and improve both reliability and capacity of supply to the Rustenburg-Brits-Shoshunguve-Pretoria North areas. In line with environmental legislation, Eskom Transmission Division has appointed Margen Industrial Services (CC) (Margen)as the Independent Environmental Consultant to conduct the Environmental Impact Assessment (EIA) study for the proposed power line servitude and substation.

As with many projects conducted within business spheres, the timeframes for conducting this Study place a deal of emphasis on a robust public consultation process. Pbai (SA) has been appointed to assist Margen with the Public consultation. As a landowner that has a signed a “Deed of Servitude” for the Transmission line, your department has to be directly consulted with and we have identified yourself as the relevant official with whom to correspond. In terms of the Deed, information should be sent to you via registered mail. However, in view of the tight time frames of this study the following action has been taken:

> A copy of the original Deed of Servitude and map for:
< Hoekfontein 432 JQ
< Remaining extent of Portion 1 of the farm Sjambok Zijn Ode Kraal 258 JR
< Remaining extent of Portion 5 (a portion of portion 2) of the farm Klipfontein 268 JR
< Portion 17 of the farm Klipfontein 268 JR

> As well as the study Background Information Document (BID) is included in this package which is being sent by registered mail
> We will be consulting directly with the kgosi of the Bakgatla-Ba-Makau Tribe to give him an opportunity to raise issues and to comment on the Draft Scoping Report.

For further information, contact the Public Involvement Officer:
Mrs Karin Bowler — Tel: 011 486 4730
Pbai (SA) — Fax: 011 646 5135
PO Box 3300 — Email : pbai@iafrica.com
Houghton 2041
Yours sincerely, Karin Bowler, Public Involvement Programme Leader

Landowners			
DLGHPD-NW - Department of Local Government Housing, Planning and Development - North West, Position: Head of Department			
MOTALA IQBAL MR	P/Bag X 2099, Mmabatho, 2735	T:018 387 3607, F:, C:, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
21-05-03	kb	Notification EIA	Post send

Registered Mail
Attention: Mr Iqbal Motala
20 May 2003

Dear Mr Motala
Re: ENVIRONMENTAL IMPACT ASSESSMENT – OFFICIAL NOTIFICATION TO LANDOWNERS
ADIS – PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION

Eskom Transmission is currently investigating the construction of a new 400 kV transmission line from a proposed sub-station called Adis (near Brits) to Phoebus substation (near Soshanguve). The establishment of the Adis Substation and extending the line to Phoebus will allow the network to operate at 400kV and improve both reliability and capacity of supply to the Rustenburg-Brits-Shoshunguve-Pretoria North areas. In line with environmental legislation, Eskom Transmission Division has appointed Margen Industrial Services (CC) (Margen)as the Independent Environmental Consultant to conduct the Environmental Impact Assessment (EIA) study for the proposed power line servitude and substation.

As with many projects conducted within business spheres, the timeframes for conducting this Study place a deal of emphasis on a robust public consultation process. Pbai (SA) has been appointed to assist Margen with the Public consultation. As a landowner that has a signed a “Deed of Servitude” for the Transmission line, your department has to be directly consulted with and we have identified Moruti Tsotsetsi (Madibeng Municipality) as the relevant official with whom to correspond. In terms of the Deed, information should be sent to you via registered mail. However, in view of the tight time frames of this study the following action has been taken:

> A copy of the original Deed of Servitude and map for:
< Portion 91 of the farm Elandsfontein 440 JO
< Remaining extent of portion 2 of the farm Sjambok Zijn Oude Kraal 258 JR
> As well as the study Background Information Document (BID) is included in this package which is being sent by registered mail
> Moruti Tsotsetsi of Madibeng Municipality (Tel No: (018) 318 9529) has been invited to attend a Key Stakeholder Workshop on 23rd May 2003 to raise issues and to comment on the Draft Scoping Report.

For further information, contact the Public Involvement Officer:
Mrs Karin Bowler Tel: 011 486 4730
Pbai (SA) Fax: 011 646 5135
PO Box 3300 Email : pbai@iafrica.com
Houghton 2041
Yours sincerely,
Karin Bowler
Public Involvement Programme Leader
CC: Moruti Tsotsetsi, Madibeng Municipality
P.O. Box 106, Brits, 0250, By Hand

29-05-03		Notification EIA	Fax Received

From: Department Of Developmental Local Government And Housing North West Province
Private Bag X2099 Mmabatho 2735

To: Pbai (SA), PO Box 3300, Houghton, 2041

For attention: Karin Bowler
Fax number: (011) 646 5135

Dear Ms Bowler

ENVIRONMENTAL IMPACT ASSESSMENT - OFFICIAL NOTIFICATION TO LANDOWNERS
ADIS - PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION

I refer to your letter dated 20 May 2003 in the above regard and acknowledge receipt of the documents as interested and affected party to the process.

We agree to the representation of Mr Moruti Tsotsetsi of Madibeng Municipality at the Stakeholder workshop but would appreciate it if all correspondence and/or documentation could also be sent to Mrs Irene Sinovich of this Department for notification.

Your assistance in this regard is appreciated.

Kind regards

MI MOTALA
DEPUTY DIRECTOR GENERAL
DATE: 29-05-03

Landowners			

DLGHPD-NW - Department of Local Government Housing, Planning and Development - North West, Position: Head of Department			
SINOVICHM IRENE, MS	P/Bag X 2099, Mmabatho, 2735	T:018 387 3607, F:018 387 3608, C:, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
29-05-03		Notification EIA	Fax Received

From: Department Of Developmental Local Government And Housing North West Province
Private Bag X2099 Mmabatho 2735

To: Pbai (SA), PO Box 3300, Houghton, 2041

For attention: Karin Bowler
Fax number: (011) 646 5135

Dear Ms Bowler

ENVIRONMENTAL IMPACT ASSESSMENT - OFFICIAL NOTIFICATION TO LANDOWNERS
ADIS - PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION

I refer to your letter dated 20 May 2003 in the above regard and acknowledge receipt of the documents as interested and affected party to the process.

We agree to the representation of Mr Moruti Tsotsetsi of Madibeng Municipality at the Stakeholder workshop but would appreciate it if all correspondence and/or documentation could also be sent to Mrs Irene Sinovich of this Department for notification.

Your assistance in this regard is appreciated.

Kind regards

MI MOTALA
DEPUTY DIRECTOR GENERAL
DATE: 29-05-03

Landowners			
Ga-Rankuwa, Position: Liaison Officer for Ward Councillor			
NGUBENI GEORGE MR	, ,	T:012 702 6501, F:, C:083 330 2031, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
28-05-03	mm	General Correspond	Fax send

To: Tshwane Metro Council, Pretoria
28 May, 2003

ATTENTION MR. GEORGE NGOBENI

Dear Sir

RE: CONFIRMATION OF MEETING ON FFIDAY, 30 MAY 2003

Our telephone discussion this morning has reference:

ESKOM TRANSMISSION DIVISION is proposing to construct a 400 kV Electric Transmission 1ine between Adis Substation near Brits and Phoebus Substation in Soshanguye.

The EIA process for the project is currently being conducted. You have been identified as an Interested or Affected Party. In accordance with the law, your involvement in the information dissemination and information gathering process is a requirement.

In light of the above, I am hereby confirming that I will come for a briefing session with yourself on Friday, the 30 May 2003 at 10H00 in your offices. Ms Tiny Ramane has agreed to attend the meeting.

Hope you find this in order and look forward to seeing you on Friday.

Kind regards, Moses Mahlangu, 082 854 9538

Attendance of the meeting is hereby confirmed. 30-05-03.

30-05-03	mm	General Correspond	Fax send

MINUTES

ADIS SUBSTATION & ADIS-PHOEBUS 400kV TRANSMISSION LINE

Venue: Tshwane Metro Council Chambers, Ultra Phill Building, PRETORIA
30 May 2003 at 10:00am

PRESENT:
NAME
ORGANISATION

Mr. G. M. Mahlangu (GMM)
Margen Industrial Services (Consultant)

Ms. Tiny Ramane (TR)
Liaison Officer (Soshanguve South Ward Council)

Mr. George Ngobeni (GN)
Liaison Officer (Soshanguve Hostel Area Ward Council)

ITEMS DISCUSSED:
ITEM
POINT
RECOMMENDATIONS

Introductions
- Each member present introduced himself/herself and indicated what his functions are in his/her organization
- GMM explained the two projects that are being investigated simultaneously.
- The need for strengthening the electric grid and ensure reliability was discussed. GN agreed with the need and indicated that the household supply was also inadequate. GMM stressed that Eskom Transmission Division is responsible construction of transmission grid between the Generation and Distribution.

Adis substation did not fall in area covered by either of the two officials in attendance. GN suggested we consult the Madibeng Local Municipality to find out who the liaison officer or the councillor is.

It is important that the message be properly conveyed to the public in that construction activity in the area should not be seen to be for the installation of electricity in houses.

The study Area
- The study area for the two projects was explained using maps in the prepared briefing documents. It was agreed that this area fell under TR and GN and that they will explain the projects to their ward councillors.
- GMM stated that since part of the land in the study area belonged to the town council, Ward Councillors in the area are considered to the affected party.
- Previously EIA was conducted and the servitude registered but DEA&T recommended that Public Participation be conducted to inform the public about the construction of the transmission line.

GN emphasized the importance of consulting the councillors, as they were the elected leaders in the area.

Issues Generic to Transmission lines
- Socio-economic issues generic to transmission lines as indicated in the prepared extract from the Draft Scoping Report (DSR) were discussed. GMM mentioned that copies of the DSR were available at different public places in the study area.

Comments, Concerns and Issues
- GN was concerned that since 1999 there has been a change of councillors and new boundary demarcations as such it was not clear if there are records indicating all activities and communication that took place around the issue of the servitude and settlement in it.
- TR wanted more clarity on the question of relocating and compensating people that might be found residing in the servitude.
- GN wanted to know if Eskom can help indicate the exact boundaries of the servitude especially on the area indicated by coordinates, **7K; 8K; 7Y; 7Z and 6Z**
- TR wanted to know what methods were used to inform the people, especially the illiterate poor communities that they should avoid settling in the servitude.

It was agreed that TR and NG would consult the councillors and confirm if there are no people settling in the servitude. Should there be houses in the servitude, TR and GN will try to find out records of who authorised them. If there are no records, Eskom and the council will have to jointly work out a reasonable method of removing them.

Way Forward
- TR will discuss the project with the ward councillor and give all the information to GN as was going on leave until the end of

June 2003.

- GN will also discuss the project with his ward councillor and give feedback to GMM.

Landowners			
Northern Metropolitan Substructure, Position: Manager of Property Services			
MAJA DINA MS	PO Box 58393, Karen Park, 0118	T:012 308 7382, F:, C:, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
21-05-03	kb	Notification EIA	By Hand

By Hand
Attention: Mrs Dina Maja
21 May 2003

Dear Mrs Maja

Re: ENVIRONMENTAL IMPACT ASSESSMENT – OFFICIAL NOTIFICATION TO LANDOWNERS
ADIS – PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION

Eskom Transmission is currently investigating the construction of a new 400 kV transmission line from a proposed sub-station called Adis (near Brits) to Phoebus substation (near Soshanguve). The establishment of the Adis Substation and extending the line to Phoebus will allow the network to operate at 400kV and improve both reliability and capacity of supply to the Rustenburg-Brits-Shoshunguve-Pretoria North areas. In line with environmental legislation, Eskom Transmission Division has appointed Margen Industrial Services (CC) (Margen) as the Independent Environmental Consultant to conduct the Environmental Impact Assessment (EIA) study for the proposed power line servitude and substation.

As with many projects conducted within business spheres, the timeframes for conducting this Study place a deal of emphasis on a robust public consultation process. Pbai (SA) has been appointed to assist Margen with the Public consultation. As a landowner that has a signed a "Deed of Servitude" for the Transmission line, your department has to be directly consulted with and we have identified yourself as the relevant official with whom to correspond. In terms of the Deed, information should be sent to you via registered mail. However, in view of the tight time frames of this study, the following action has been taken:

-A copy of the original Deed of Servitude and map for:
-Portions of the farm Kruisfontein 262 JR
-Portions of the farm Klipfontein 268 JR
-As well as the study Background Information Document (BID) is included in this package package which is being handed to Hannes Koster on the 23rd May 2003.
-Hannes Koster of Tshwane Municipality (Tel No: (012) 521 8138) has been invited to attend a Key Stakeholder Workshop on 23rd May 2003 to raise issues and to comment on the Draft Scoping Report.

For further information, contact the Public Involvement Officer:
Mrs Karin Bowler
Tel: 011 486 4730, Fax: 011 646 5135, Email : pbai@iafrica.com
Pbai (SA), PO Box 3300, Houghton, 2041

Yours sincerely, Karin Bowler, Public Involvement Programme Leader

Landowners			
Owner of farm next to Adis Substation (Farm Rooikopjies), Position:			
DIRANE D.J. MR	Stand 745, Mothotlung,	T:, F:, C:082 436 2333, E:	

CallDate	**From**	**ActionType**	**CorrespondType**
30-05-03	mm	MM - Comments, Concerns and Issues	Telephone conversation

Adis-Phoebus 400kV Transmission Line Project comments, concerns and issues

As an Interested and/or Affected Party, Key Stakeholder or Landowner you are kindly requested to comment on the project to be undertaken in the identified study area (see map) by way of completing this questionnaire. The Public Involvement Officer will explain the study area, the EIA process and help to record your comments.

Title (Dr. Mr. Ms) Mr.
Surname Dirane
Full Name D. J.
Organisation Owner of farm next to Adis Substation (Farm Rooikopjies)
Position
Postal Address Stand 745 Mothotlung
Telephone
Fax
Cell 082 436 2333
E-Mail

1. Are there any interested and Affected Parties, which you feel, should be consulted in the course of this study? If yes, please state contact details (Tel, Fax, Cell, E-Mail, PO Address, Organisation, Position).

2. Are there any issues or concerns that you believe should be addressed in the Environmental Impact Assessment that you would like to bring to ESKOM's attention?

Spoke to him on the telephone and he indicated that he did not have any objection to the project and was happy that he has been informed about the project. He will also inform his employees about the coming project and hope that he will receive cooperation from construction companies and their employees. (Spoke to him on 05-06-03 at about 18H30)

YOUR CONTRIBUTION IS HIGHLY APPRECIATED

Signature Date

Landowners			
Private, Position: Lawyer			
TOEBES KOOS MR	, ,	T:, F:011 783 8146, C:082 783 1976, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
20-05-03	kb	1st KS Workshop	Workshop invite

Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).

21-05-03	kb	Notification EIA	By Hand

By Hand to Mr Toebes
Attention: Mr Hannes Miller
20 May 2003

Dear Mr Miller
Re: ENVIRONMENTAL IMPACT ASSESSMENT – OFFICIAL NOTIFICATION TO LANDOWNERS
ADIS – PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION

Eskom Transmission is currently investigating the construction of a new 400 kV transmission line from a proposed sub-station called Adis (near Brits) to Phoebus substation (near Soshanguve). The establishment of the Adis Substation and extending the line to Phoebus will allow the network to operate at 400kV and improve both reliability and capacity of supply to the Rustenburg-Brits-Shoshunguve-Pretoria North areas. In line with environmental legislation, Eskom Transmission Division has appointed Margen Industrial Services (CC) (Margen)as the Independent Environmental Consultant to conduct the Environmental Impact Assessment (EIA) study for the proposed power line servitude and substation.

As with many projects conducted within business spheres, the timeframes for conducting this Study place a deal of emphasis on a robust public consultation process. Pbai (SA) has been appointed to assist Margen with the Public consultation. As a landowner that has a signed a “Deed of Servitude” for the Transmission line, you have to be directly consulted with and we have identified yourself as the relevant person with whom to correspond. In terms of the Deed, information should be sent to you via registered mail. However, in view of the tight time frames of this study the following action has been taken:

-A copy of the original Deed of Servitude and map for:
-Remainder of Portion 3 of the farm Kruisfontein 262 JR
-Remainider of the farm Wentelrust 223 JR
-As well as the study Background Information Document (BID) is included in this package which is being sent by registered mail
-Koos Toebes (Tel No: 082 783 1976) has been invited to attend a Key Stakeholder Workshop on 23rd May 2003 to raise issues and to comment on the Draft Scoping Report.

As discussed with you on the 20th May 2003, you have agreed toforward this information to the new owner of the above mentioned properties.

For further information, contact the Public Involvement Officer:
Mrs Karin Bowler — Tel: 011 486 4730
Pbai (SA) — Fax: 011 646 5135
PO Box 3300 — Email : pbai@iafrica.com
Houghton 2041
Yours sincerely,
Karin Bowler
Public Involvement Programme Leader
CC: Koos Toebes, By Hand, Cell: 082 783 1976, Fax: (011) 783 8146

22-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop as he couldn't move his other meeting.			
Landowners			
Resident under the line, Position:			
JIYANE JEREMIAH MR	PO Box 1031, Brits, 0250	T:, F:, C:072 580 1106, E:	
CallDate	**From**	**ActionType**	**CorrespondType**
30-05-03	mm	MM - Comments, Concerns and Issues	Meeting present

Adis-Phoebus 400kV Transmission Line Project comments, concerns and issues

As an Interested and/or Affected Party, Key Stakeholder or Landowner you are kindly requested to comment on the project to be undertaken in the identified study area (see map) by way of completing this questionnaire. The Public Involvement Officer will explain the study area, the EIA process and help to record your comments.

1. Are there any interested and Affected Parties, which you feel, should be consulted in the course of this study? If yes, please state contact details (Tel, Fax, Cell, E-Mail, PO Address, Organisation, Position).

Neighbours, Mr Mahlangu and Mr Mlambo. The induna (Mokame) and Mr Katakane should be involved.

2. Are there any issues or concerns that you believe should be addressed in the Environmental Impact Assessment that you would like to bring to ESKOM’s attention?

Have already spent a lot of money in getting the site in good condition. Relocating will be difficult as there is no money for building a new house. My farming activities will be affected negatively.

YOUR CONTRIBUTION IS HIGHLY APPRECIATED

Signature - Refused to sign. Date - 30-05-03

Landowners			
Resident under the line, Position:			
MAHLANGU PETROS. D. MR	PO Box 302, De Wildt, 0256	T:, F:, C:082 818 2130, E:	LO

CallDate	From	ActionType	CorrespondType
30-05-03	mm	MM - Comments, Concerns and Issues	Meeting present

Adis-Phoebus 400kV Transmission Line Project comments, concerns and issues

As an Interested and/or Affected Party, Key Stakeholder or Landowner you are kindly requested to comment on the project to be undertaken in the identified study area (see map) by way of completing this questionnaire. The Public Involvement Officer will explain the study area, the EIA process and help to record your comments.

1. Are there any interested and Affected Parties, which you feel, should be consulted in the course of this study? If yes, please state contact details (Tel, Fax, Cell, E-Mail, PO Address, Organisation, Position).

Inform neighbours and makgomane of the area.

2. Are there any issues or concerns that you believe should be addressed in the Environmental Impact Assessment that you would like to bring to ESKOM's attention?

Not against development but would like to be helped to relocate or shift his house in the same site. He is doing small scale farming on crops and live stock. He is worried about safety of walking under the line.

YOUR CONTRIBUTION IS HIGHLY APPRECIATED

Signature - Signed, Date - 30-05-03

Landowners			
Soshanguve South Council, Position: Liaison Officer for Ward Councillors			
RAMANE TINY MS	, ,	T:012 521 8154, F:, C:073 238 4218, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
28-05-03	mm	General Correspond	Fax send

To: Tshwane Metro Council, Pretoria
28 May, 2003

ATTENTION MR. GEORGE NGOBENI

Dear Sir

RE: CONFIRMATION OF MEETING ON FFIDAY, 30 MAY 2003

Our telephone discussion this morning has reference:

ESKOM TRANSMISSION DIVISION is proposing to construct a 400 kV Electric Transmission 1ine between Adis Substation near Brits and Phoebus Substation in Soshanguye.

The EIA process for the project is currently being conducted. You have been identified as an Interested or Affected Party. In accordance with the law, your involvement in the information dissemination and information gathering process is a requirement.

In light of the above, I am hereby confirming that I will come for a briefing session with yourself on Friday, the 30 May 2003 at 10H00 in your offices. Ms Tiny Ramane has agreed to attend the meeting.

Hope you find this in order and look forward to seeing you on Friday.

Kind regards, Moses Mahlangu, 082 854 9538
Attendance of the meeting is hereby confirmed. 30-05-03.

30-05-03	mm	General Correspond	Fax send

MINUTES ADIS SUBSTATION & ADIS-PHOEBUS 400kV TRANSMISSION LINE

Venue: Tshwane Metro Council Chambers, Ultra Phill Building, PRETORIA
30 May 2003 at 10:00am

PRESENT:
NAME
ORGANISATION

Mr. G. M. Mahlangu (GMM)
Margen Industrial Services (Consultant)

Ms. Tiny Ramane (TR)
Liaison Officer (Soshanguve South Ward Council)

Mr. George Ngobeni (GN)
Liaison Officer (Soshanguve Hostel Area Ward Council)

ITEMS DISCUSSED:
ITEM
POINT
RECOMMENDATIONS

Introductions
- Each member present introduced himself/herself and indicated what his functions are in his/her organization
- GMM explained the two projects that are being investigated simultaneously.
- The need for strengthening the electric grid and ensure reliability was discussed. GN agreed with the need and indicated that the household supply was also inadequate. GMM stressed that Eskom Transmission Division is responsible construction of transmission grid between the Generation and Distribution.

Adis substation did not fall in area covered by either of the two officials in attendance. GN suggested we consult the Madibeng Local Municipality to find out who the liaison officer or the councillor is.

It is important that the message be properly conveyed to the public in that construction activity in the area should not be seen to be for the installation of electricity in houses.

The study Area
- The study area for the two projects was explained using maps in the prepared briefing documents. It was agreed that this area fell under TR and GN and that they will explain the projects to their ward councillors.
- GMM stated that since part of the land in the study area belonged to the town council, Ward Councillors in the area are considered to the affected party.
- Previously EIA was conducted and the servitude registered but DEA&T recommended that Public Participation be conducted to inform the public about the construction of the transmission line.

GN emphasized the importance of consulting the councillors, as they were the elected leaders in the area.

Issues Generic to Transmission lines
- Socio-economic issues generic to transmission lines as indicated in the prepared extract from the Draft Scoping Report (DSR) were discussed. GMM mentioned that copies of the DSR were available at different public places in the study area.

Comments, Concerns and Issues
- GN was concerned that since 1999 there has been a change of councillors and new boundary demarcations as such it was not clear if there are records indicating all activities and communication that took place around the issue of the servitude and settlement in it.
- TR wanted more clarity on the question of relocating and compensating people that might be found residing in the servitude.
- GN wanted to know if Eskom can help indicate the exact boundaries of the servitude especially on the area indicated by coordinates, **7K; 8K; 7Y; 7Z and 6Z**
- TR wanted to know what methods were used to inform the people, especially the illiterate poor communities that they should avoid settling in the servitude.

It was agreed that TR and NG would consult the councillors and confirm if there are no people settling in the servitude. Should there be houses in the servitude, TR and GN will try to find out records of who authorised them. If there are no records, Eskom and the council will have to jointly work out a reasonable method of removing them.

Way Forward
- TR will discuss the project with the ward councillor and give all the information to GN as was going on leave until the end of

June 2003.

- GN will also discuss the project with his ward councillor and give feedback to GMM.

Landowners			
Soshanguve South Development Company (In Liquidation), Position: Owner			
MILLER HANNES MR	PO Box 1687, Rivonia, 2128	T:012 342 7700, F:012 342 7727, C:082 573 9302, E:	LO
CallDate	**From**	**ActionType**	**CorrespondType**
03-05-39	ns	General Correspond	Fax send

To: Hannes Miller
Company: Soshanguve South Development Company in Liquidation
Fax number: (012) 342 7727
From: Nathalie Smal
Date: 30 May 2003

Job no / Reference no: 236
Total number of sheets, including this one: 1

SUBJECT: ESKOM ADIS-PHOEBUS TRANSMISSION LINE – KEY STAKEHOLDER

Dear Mr Miller

Unfortunately, Mr Koos Toebus was unable to attend the Key Stakeholder Workshop for the above project last Friday. We have sent a copy of the background documentation and servitude agreement through to you by registered post for your information.

If you have any queries regarding this project please do not hesitate to contact us.

Kind Regards, Nathalie Smal

21-05-03	kb	Notification EIA	Post send

Registered Mail
Attention: Mr Hannes Miller
20 May 2003

Dear Mr Miller
Re: ENVIRONMENTAL IMPACT ASSESSMENT – OFFICIAL NOTIFICATION TO LANDOWNERS
ADIS – PHOEBUS 400kV TRANSMISSION LINE & ADIS SUBSTATION

Eskom Transmission is currently investigating the construction of a new 400 kV transmission line from a proposed sub-station called Adis (near Brits) to Phoebus substation (near Soshanguve). The establishment of the Adis Substation and extending the line to Phoebus will allow the network to operate at 400kV and improve both reliability and capacity of supply to the Rustenburg-Brits-Shoshunguve-Pretoria North areas. In line with environmental legislation, Eskom Transmission Division has appointed Margen Industrial Services (CC) (Margen)as the Independent Environmental Consultant to conduct the Environmental Impact Assessment (EIA) study for the proposed power line servitude and substation.

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-A copy of the original Deed of Servitude and map for:
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-As well as the study Background Information Document (BID) is included in this package which is being sent by registered mail
-Koos Toebes (Tel No: 082 783 1976) has been invited to attend a Key Stakeholder Workshop on 23rd May 2003 to raise issues and to comment on the Draft Scoping Report.

As discussed with you on the 20th May 2003, you have agreed toforward this information to the new owner of the above mentioned properties.

For further information, contact the Public Involvement Officer:
Mrs Karin Bowler Tel: 011 486 4730
Pbai (SA) Fax: 011 646 5135
PO Box 3300 Email : pbai@iafrica.com
Houghton 2041
Yours sincerely,
Karin Bowler
Public Involvement Programme Leader
CC: Koos Toebes, By Hand, Cell: 082 783 1976, Fax: (011) 783 8146

Mining & Industry			
Vametco Minerals Corporation, Position: Engineering Manager			
SCHILLER NORBERT MR	PO Box 595, Brits, 0250	T:012 318 3266, F:012 318 3201, C:082 902 0489, E:norbert.schiller@vam.stratcor.com	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			

23-05-03		1st KS Workshop	Attendance Register
Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.			

28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
28-05-03		1st KS Workshop	E-mail received
E-Mail failure. Phoned confirmed e-mail address. Resend.			
03-06-03	kb	1st KS Workshop	E-mail send
Resend e-mail with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt Provincial			
DACE-NW - Department of Agriculture, Conservation and Environment - North West, Position:			
RAMATLHAPE MALIBA MS	P/Bag X 82070, Rustenburg, 0300	T:014 592 8261/ 2, F:014 592 2116, C:, E:	KS
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03		Site Visit and Integration Meeting	Attendance Register
Attended Site Visit and Integration Meeting on 06 May 2003.			
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
22-05-03		1st KS Workshop	Telephone conversation
Phoned several times, but no answer.			
Govt Provincial			
DACE-NW - Department of Agriculture, Conservation and Environment - North West, Position: Principal Environmental Officer			
LIGARABA TSHILIDZI MS	P/Bag X 82070, Rustenburg, 0300	T:014 592 7378, F:014 592 3553, C:, E:tligaraba@nwpg.org.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03		Site Visit and Integration Meeting	Attendance Register
Attended Site Visit and Integration Meeting on 06 May 2003.			
16-05-03	kb	1st KS Workshop	Workshop invite
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22-05-03		1st KS Workshop	Workshop apologies
Will not be attending the workshop as she has no access to a car.			

28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Govt National			
DEAT - Department of Environmental Affairs and Tourism, Position:			
MATABANE VINCENT MR	P/Bag X 447, Pretoria, 0001	T:012 310 3624/ 3911, F:012 310 3688, C:082 871 2771, E:vmatabane@ozone.pwv.gov.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03		Site Visit and Integration Meeting	Attendance Register
Attended Site Visit and Integration Meeting on 06 May 2003.			
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
22-05-03		1st KS Workshop	Telephone conversation
Phoned Mr Vincent Matabane the 21 May 2003 on his cellphone and he said he will phone with confirmation on the 22 May 2003. Phoned on the 22 May 2003 - no answer on phone.			
22-05-03		1st KS Workshop	Workshop apologies
Apologised			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Study Team			
Eco-Agent, Position:			

BROWN LESLIE MS	PO Box 703, Heidelberg, 1438	T:, F:016 349 1108, C:082 464 1021, E:	
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03		Site Visit and Integration Meeting	Attendance Register
Attended Site Visit and Integration Meeting on 06 May 2003.			
Landowner			
Eskom North East, Position: Land Developer Manager			
NEL ANDRI MS	PO Box 36099, Menlo Park, 0102	T:012 421 3316/ 4793, F:012 421 6793, C:082 328 2235, E:andri.nel@eskom.co.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Carol Streaton E-Mailed to Mr Andri Nel the Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			

23-05-03		1st KS Workshop	Attendance Register
Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.			

28-05-03	kb	1st KS Workshop	E-mail send
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29-05-03		1st KS Workshop	E-mail received
E-Mail failure. Phoned confirmed e-mail address. Resend.			
03-06-03	kb	1st KS Workshop	E-mail send
Resend e-mail with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Landowner			
Eskom Transmission Division			
CRONJE EDWARD MR			KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Carol Streaton E-Mailed to Mr Andri Nel the Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
30-05-03		1st KS Workshop	Workshop Apologies
Carol Streaton E-Mailed the apologies.			
Landowner			
Eskom Transmission Division			
NAIDOO ANAND MR			KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Carol Streaton E-Mailed to Mr Andri Nel the Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
30-05-03		1st KS Workshop	Workshop Apologies
Carol Streaton E-Mailed the apologies.			
Landowner			
Eskom Transmission Division			
HUMAN LOUISE MS			KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
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30-05-03		1st KS Workshop	Workshop Apologies
Carol Streaton E-Mailed the apologies.			
Landowner			
Eskom Transmission Division			
LIEBENBERG SONJA MS			KS
CallDate	**From**	**ActionType**	**CorrespondType**
16-05-03	kb	1st KS Workshop	Workshop invite
Carol Streaton E-Mailed to Mr Andri Nel the Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
30-05-03		1st KS Workshop	Workshop Apologies
Carol Streaton E-Mailed the apologies.			
Study Team			
Eskom Transmission Division, Position: Public Involvement Advisor			
STREATON CAROL MS	PO Box 1091, Johannesburg, 2000	T:011 800 2465, F:011 800 3917, C:083 633 1545, E:carol.streaton@eskom.co.za	KS

CallDate	From	ActionType	CorrespondType
16-05-03	kb	1st KS Workshop	Workshop invite
E-Mailed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
16-05-03	ns	1st KS Workshop	E-mail send
Map to the venue of the Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
23-05-03		1st KS Workshop	Attendance Register
Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.			
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Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00.			
30-05-03		1st KS Workshop	E-mail received
List of apologies from Eskom. Edward Cronje, Anand Naidoo, Louise Human, Sonja Liebenberg.			
Study Team			
Eskom Transmission Division, Position: Senior Environmental Advisor			

GEERINGH JOHN MR	PO Box 1091, Johannesburg, 2000	T:011 800 2465, F:011 800 3917, C:083 632 7663, E:john.geeringh@eskom.co.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03		Site Visit and Integration Meeting	Attendance Register
Attended Site Visit and Integration Meeting on 06 May 2003.			

16-05-03	kb	1st KS Workshop	Workshop invite
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Govt Provincial			
GDACEL - Gauteng Department of Agriculture, Conservation, Environmental and Land Affairs, Position: Assistant Director: Urban Development			
WARREN ELIZABETH MS	PO Box 8769, Johannesburg, 2000	T:011 355 1927, F:011 337 2292, C:, E:elizabethw@gpg.gov.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03	kb	Site Visit and Integration Meeting	Attendance Register
Attended Site Visit and Integration Meeting on 06 May 2003.			
16-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
19-05-03		1st KS Workshop	Workshop apologies
Will not be attending. They were only interested in the site visit.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00. 3. Summary Document of Draft Scoping Report Transmission Line. 4. Summary Document of Draft Scoping Report Substation.			
Study Team			
GIS Corporation, Position:			
BADENHORST HESTER MS	PO Box 1708, Faerie Glen, 0043	T:012 991 0752, F:012 991 0752, C:083 244 3837, E:hesterbaden@mweb.co.za	
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03		Site Visit and Integration Meeting	Attendance Register
Attended Site Visit and Integration Meeting on 06 May 2003.			
Study Team			
Master Q Research, Position:			
BRON ANITA MS	PO Box 44158, Linden, 2104	T:011 888 3825, F:011 782 3944, C:082 780 5801, E:masterq@telkomsa.net	KS
CallDate	**From**	**ActionType**	**CorrespondType**
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Study Team			
MIS - Margen Industrial Services, Position: Co-ordinator			
MAHLANGU MOSES MR	PO Box 4884, Witbank, 1035	T:013 699 0749, F:013 699 0917, C:082 854 9538, E:delno@telkomsa.net	
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03		Site Visit and Integration Meeting	Attendance Register
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Study Team			
PBA International (SA), Position:			
DUNSMORE STUART MR	PO Box 3300, Houghton, 2041	T:011 486 4730, F:011 646 5135, C:082 579 9149, E:stuartjd@icon.co.za	
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03		Site Visit and Integration Meeting	Attendance Register
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23-05-03		1st KS Workshop	Attendance Register
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Study Team			
PBA International (SA), Position: Engineer			
SMAL NATHALIE MS	PO Box 3300, Houghton, 2041	T:011 486 4730, F:011 646 5135, C:082 780 4843, E:pbai@iafrica.com	
CallDate	**From**	**ActionType**	**CorrespondType**
23-05-03		1st KS Workshop	Attendance Register
Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.			
Study Team			
PBA International (SA), Position: Public Involvement Programme Officer			
BOWLER KARIN MS	PO Box 3300, Houghton, 2041	T:011 486 4730, F:011 646 5135, C:082 809 7624, E:karinbow@iafrica.com	
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03		Site Visit and Integration Meeting	Attendance Register
Attended Site Visit and Integration Meeting on 06 May 2003.			

23-05-03		1st KS Workshop	Attendance Register
Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.			
Study Team			
Private, Position:			
HOPKINSON LISA MS	PO Box 2659, Houghton, 2041	T:011 487 2451, F:011 487 2450, C:083 312 2374, E:	
CallDate	**From**	**ActionType**	**CorrespondType**
06-05-03		Site Visit and Integration Meeting	Attendance Register
Attended Site Visit and Integration Meeting on 06 May 2003.			
Study Team			
Private, Position: Archaeologist			
PISTORIUS JULIUS DR	352 Rosemary Street, Lynnwood, 0081	T:012 348 5668, F:012 348 5668, C:, E:juliuscc@absamail.co.za	KS
CallDate	**From**	**ActionType**	**CorrespondType**

06-05-03		Site Visit and Integration Meeting	Attendance Register
Attended Site Visit and Integration Meeting on 06 May 2003.			
21-05-03	kb	1st KS Workshop	Workshop invite
Faxed Invitation to Attend a Key Stakeholder Workshop on Friday 23rd May 2003 12:00 at The Old Akasia Town Council Building (Council Board Room).			
23-05-03		1st KS Workshop	Attendance Register
Attended Key Stakeholder Workshop at The Old Akasia Town Council Building (Council Board Room) on Friday 23rd May 2003 12:00.			
28-05-03	kb	1st KS Workshop	E-mail send
Send an e-mail on 28 May 2003 with the following documents: 1. Minutes of the Key Stakeholder workshop on the 23rd May 2003 12:00. 2. Attendance Register of the Key Stakeholder workshop on 23rd May 2003 12:00.			
Govt Provincial			
DWAF – Department of Water Affairs and Forestry			
MASELO GEORGE MR		T: 012 255 5803	KS
CallDate	**From**	**ActionType**	**CorrespondType**
30-05-03	mm		Conversation
Mr Maselo was on leave when Mr Mahlangu visited the offices. Mr Mahlangu left the relevant information at the offices.			

KEY STAKEHOLDER WORKSHOP DATABASE

Key to table			
KS	Key Stakeholder	Stakeholders who confirmed attendance but did not arrive at the workshop	
LO	Landowner	Stakeholders who apologized either on the morning of or after the workshop	YES

SECTOR	ORGANISATION	NAME	KS/LO	REPLY SHEET RCVD	APOLOGY RCVD	AFFIRMATIVE RESPONSE	ATTENDED
Environmental	DCSD-SA - Business Councill for Sustainable Development - South Africa (Industrial Environmental Forum for SA), Position: Manager	Simmonds Jessica Ms	KS	YES	YES		NO
Environmental	WESSA - Wildlife and Environmental Society of South Africa - North West, Position: Manager	Bartman Stuart Mr	KS	NO	YES		NO
Environmental	WESSA - Wildlife and Environmental Society of South Africa - Northern, Position: Manager	Litard Sue Ms	KS	NO	YES		NO
Govt Local	CTMM - Tshwane Municipality Environmental Health Region 1, Position: Senior Evironmental Health Practitioner	Matsobane Thabo Mr	LO	YES		YES	YES
Govt Local	CTMM - Tshwane Municipality Environmental Health Region 3, Position: Town Planner	Koster Hannes Mr	LO	YES		YES	YES
Govt Local	Madibeng Municipality (Brits), Position: Town Planner	Tsotsetsi Moruti Mr	LO	NO	YES		NO
Govt Local	Madibeng Municipality (Brits), Position: Town Planner Manager	de Klerk Jeff Mr	LO	NO	YES		NO
Govt Local	Madibeng Municipality, Position:	Barnard Johan Mr	LO	NO	YES		NO
Govt Local	Madibeng Municipality, Position:	Letsoalo Pumza Ms	LO	NO	YES		NO
Govt Local	Madibeng Municipality, Position: Mr Eichstadt would have attended on his colleagues' behalf.	Eichstadt, L.C. Mr	LO	NO	NO		NO
Govt Local	Tshwane Municipality Environment Health, Position: Environmental Planning Manager	Wheeler Michelle Ms	LO	NO	YES		NO
Govt Local	Tshwane Municipality Environmental Health Region 1, Position: Acting Deputy Manager	Nkuna Florence Ms	LO	YES	YES		NO
Govt Local	Tshwane Municipality Environmental Health Region 1, Position: Acting Town Planner Manager	de Haas Pieter Mr	LO	NO	YES		NO
Govt Local	Tshwane Municipality Environmental Health Region 1, Position: Town Planner	Visser Johan Mr	LO	NO	YES		NO
Govt Local	Tshwane Municipality Environmental Health Region 2, Position: Town Planner Manager	Le Roux Jean Mr	LO	NO	NO		NO
Govt National	Spoornet, Position: Chief Administrator	Mtsenga Patrick Mr	KS	YES	YES		NO
Govt National	Spoornet, Position: Junior Manager	Mashiane Frans Mr	KS	YES	YES		NO
Govt National	DEAT - Department of Environmental Affairs and Tourism, Position:	Matabane Vincent Mr	KS	NO	YES		NO
Govt Provincial	DACE-NW - Department of Agriculture, Conservation and Environment - North West, Position:	Ramatlhape Maliba Ms	KS	NO	NO		NO
Govt Provincial	DACE-NW - Department of Agriculture, Conservation and Environment - North West, Position: Principal Environmental Officer	Ligaraba Tshilidzi Ms	KS	YES	YES		NO
Govt Provincial	DME-G - Department of Mineral and Energy - Gauteng, Position: Director of Environment Section	Mathipeng Asaph Mr	KS	NO	YES	YES	NO
Govt Provincial	DME-G - Department of Mineral and Energy - Gauteng, Position: Regional Director	Cronje Andre Mr	KS	NO	YES		NO
Govt Provincial	DME-NW - Department of Mineral and Energy - North West, Position: Inspector of Machinery	Matlou Marcus Mr	KS	YES		YES	YES

KEY STAKEHOLDER WORKSHOP DATABASE

Key to table			
KS	Key Stakeholder	Stakeholders who confirmed attendance but did not arrive at the workshop	
LO	Landowner	Stakeholders who apologized either on the morning of or after the workshop	YES

SECTOR	ORGANISATION	NAME	KS/LO	REPLY SHEET RCVD	APOLOGY RCVD	AFFIRMATIVE RESPONSE	ATTENDED
Govt Provincial	DME-NW - Department of Mineral and Energy - North West, Position: Regional Director	Moagi Kennedy Mr	KS	NO	YES		NO
Govt Provincial	SAHRA - South Africa Heritage Resource Agency - Gauteng, Position: Assistant Manager	Kitto Jennifer Ms	KS	YES	NO	YES	NO
Govt Provincial	SAHRA - South Africa Heritage Resource Agency - Gauteng, Position: Cultural Officer	Khumalo Vusi Mr	KS	YES		YES	YES
Govt Provincial	SAHRA - South Africa Heritage Resource Agency - Gauteng, Position: Provincial Manager	Kgomommu Thabo Mr	KS	NO	YES		NO
Govt Provincial	SAHRA - South Africa Heritage Resource Agency - North West, Position: Provincial Manager	November Ntsizi Mr	KS	YES		YES	YES
Landowners	Private, Position: Lawyer	Toebes Koos Mr	LO	NO	YES		NO
Mining & Industry	Vametco Minerals Corporation, Position: Engineering Manager	Schiller Norbert Mr	KS	YES		YES	YES
Landowner	Eskom North East, Position: Land Developer Manager	Nel Andri Ms	KS	NO		YES	YES
Key Stakeholder	Eskom Transmission Division	Cronje, E dward Mr	KS	NO	YES		
Key Stakeholder	Eskom Transmission Division	Naidoo, A nand Mr	KS	NO	YES		
Key Stakeholder	Eskom Transmission Division	Human, Louise, Ms	KS	NO	YES		
Key Stakeholder	Eskom Transmission Division	Liebenberg, Sonja, Ms	KS	NO	YES		
Study Team	Eskom Transmission Division, Position: Public Involvement Advisor	Streaton Carol Ms	KS	N/a		YES	YES
Study Team	Eskom Transmission Division, Position: Senior Environmental Advisor	Geeringh John Mr	KS	N/a		YES	YES
Govt Prov	GDACEL - Gauteng Department of Agriculture, Conservation, Environmental and Land Affairs, Position: Assistant Director: Urban Development	Warren Elizabeth Ms	KS	NO	YES		NO
Study Team	Master Q Research, Position:	Bron Anita Ms		NO		YES	YES
Study Team	MIS - Margen Industrial Services, Position: Co-ordinator	Mahlangu Moses Mr		N/a		YES	YES
Study Team	PBA International (SA), Position:	Dunsmore Stuart Mr		N/a		YES	YES
Study Team	PBA International (SA), Position: Engineer	Smal Nathalie Ms		N/a		YES	YES
Study Team	PBA International (SA), Position: Public Involvement Programme Officer	Bowler Karin Ms		N/a		YES	YES
Study Team	Private, Position: Archaeologist	Pistorius Julius Dr		YES		YES	YES

MINUTES

ADIS SUBSTATION & ADIS-PHOEBUS 400kV TRANSMISSION LINE

Venue: Tshwane Metro Council Chambers, Ultra Phill Building, PRETORIA
30 May 2003 at 10:00am

PRESENT:

NAME	ORGANISATION
Mr. G. M. Mahlangu (GMM)	**Margen Industrial Services (Consultant)**
Ms. Tiny Ramane (TR)	**Liaison Officer (Soshanguve South Ward Council)**
Mr. George Ngobeni (GN)	**Liaison Officer (Soshanguve Hostel Area Ward Council)**

ITEMS DISCUSSED:

ITEM	POINT	RECOMMENDATIONS
Introductions	• Each member present introduced himself/herself and indicated what his functions are in his/her organization • GMM explained the two projects that are being investigated simultaneously. • The need for strengthening the electric grid and ensure reliability was discussed. GN agreed with the need and indicated that the household supply was also inadequate. GMM stressed that Eskom Transmission Division is responsible construction of transmission grid between the Generation and Distribution.	Adis substation did not fall in area covered by either of the two officials in attendance. GN suggested we consult the Madibeng Local Municipality to find out who the liaison officer or the councillor is. It is important that the message be properly conveyed to the public in that construction activity in the area should not be seen to be for the installation of electricity in houses.
The study Area	• The study area for the two projects was explained using maps in the prepared briefing documents. It was agreed that this area fell under TR and GN and that they will explain the projects to their ward councillors. • GMM stated that since part of the land in the study area belonged to the town council, Ward Councillors in the area are considered to the affected party. • Previously EIA was conducted and the servitude registered but DEA&T recommended that Public Participation be conducted to inform the public about the construction of the transmission line.	GN emphasized the importance of consulting the councillors, as they were the elected leaders in the area.
Issues Generic to Transmission lines	• Socio-economic issues generic to transmission lines as indicated in the prepared extract from the Draft Scoping Report (DSR) were discussed. GMM mentioned that copies of the DSR were available at different public places in the study area.	
Comments, Concerns and Issues	• GN was concerned that since 1999 there has been a change of councillors and new boundary demarcations as such it was not clear if there are records indicating all activities and communication that took place around the issue of the servitude and settlement in it. • TR wanted more clarity on the question of relocating and compensating people that might be found residing in the servitude. • GN wanted to know if Eskom can help indicate the exact boundaries of the servitude especially on the area indicated by coordinates, **7K; 8K; 7Y; 7Z and 6Z** • TR wanted to know what methods were used to inform the people, especially the illiterate poor communities that they should avoid settling in the servitude.	It was agreed that TR and NG would consult the councillors and confirm if there are no people settling in the servitude. Should there be houses in the servitude, TR and GN will try to find out records of who authorised them. If there are no records, Eskom and the council will have to jointly work out a reasonable method of removing them.

ITEM	POINT	RECOMMENDATIONS
Way Forward	• TR will discuss the project with the ward councillor and give all the information to GN as was going on leave until the end of June 2003. • GN will also discuss the project with his ward councillor and give feedback to GMM.	

MINUTES

ADIS SUBSTATION & ADIS-PHOEBUS 400kV TRANSMISSION LINE
KEY STAKEHOLDER WORKSHOP
23 MAY 2003, 11H30 – 15H30

Venue: Council Chamber, Old Akasia Town Council, Akasia, PRETORIA

Participants		
A list of participants is attached in Appendix 1		
Presenters	**Organisation**	**Project Title**
Moses Mahlangu (Chairman) (MM)	Margen Industrial Services	Assistant Project Manager
Stuart Dunsmore (SD)	PBA International (SA)	Project Manager
John Geeringh (JG)	Eskom Transmission Division	EIA Project Manager
Carol Streaton (CS)	Eskom Transmission Division	Manager: Public Participation
Karin Bowler (KB)	PBA International (SA)	Public Participation Team

Item	Point	Action	Date
1.	WELCOME, OBJECTIVES AND AGENDA (Mahlangu) 1. MM welcomed all & thanked them for their time. 2. MM stated the objective of the workshop was to give background to the project and to identify sensitive areas in the study areas. 3. All parties present received summary documents and impact tables of both the scoping reports.		
2.	ATTENDANCE REGISTER AND APPOLOGIES (Mahlangu & Bowler) 1. The attendance register was signed by all parties present. The list of attendees is provided at the top of these minutes. Thabo Matsobane excused himself to leave at 14h30 2. The following apologies were received: • Jessica Simmonds – Business Council for Sustainable Development (BCSD) • Stuart Bartman – Wildlife Environmental Society of South Africa (WESSA) • Sue Litard – WESSA • Moruti Tsotsetsi – Madibeng Municipality • Jeff de Klerk – Madibeng Municipality • Johan Barnard – Madibeng Municipality • Michelle Wheeler - Tshwane Municipality • Pieter he Haas – Tshwane Municipality • Bertus van Tonder – Tshwane Municipality • Johan Visser - Tshwane Municipality • Koos Toebes – Soshanguve Development Company under liquidation • Tshilidsi Ligaraba – Department of Agriculture, Conservation and Environment, North West Province (DACE NW) 3. A letter containing the servitude registration and map for the land owned by the City of Tshwane, was handed to Hannes Koster to hand over to Mrs Maja of Tshwane 4. Mr Koos Toebes, the lawyer representing Soshanguve South Development Company (and Mr Hannes Miller, current owner) has undertaken to inform the new landowner of the negotiated servitude. The relevant documentation has been sent by registered mail to Mr Miller.		
3.	BACKGROUND TO THE STUDY (John Geeringh) 1. JG gave an overview of the study, explaining the existing power supply network and the shortfalls in transmission. 2. There is sufficient power generation capacity to meet current needs, but additional transmission capacity is required to meet the growth in demand in the area. 3. The substation is required to meet demand growth in the Brits/Madibeng area. 4. The transmission line is part of a wider network expansion linking the area to both Matimba Power Station near Ellisras, and the power stations in Mpumalanga. 5. It was also pointed out that the servitude for the proposed Adis-Phoebus transmission line has already been registered and that this project does not involve further servitude negotiations or route selection		

Item	Point	Action	Date
4.	**ACTIVITIES RELATED TO THE CONSTRUCTION OF TRANSMISSION LINES (Carol Streaton)** 1. CS gave a presentation on activities relating to the construction of Transmission lines. 2. Underground Transmission lines are not recommended because of the size of the servitude, permanent disruption to vegetation and high costs. Unlike standard Transmission lines, no agricultural activities can be conducted within the servitude during operation. 3. CS showed an example of the proposed Cross Rope Suspension tower to be used on this line. These towers generally have the lowest environmental impact, are the least visually intrusive, and are cheaper to construct. 4. It was stated that the site for the construction camp would be negotiated by the contractor with the relevant landowner and that an EMP (Environmental Management Plan) would be implemented in running and removing the camp. 5. There are limited opportunities for local labour in the construction of a transmission line as it is a specialised job and there is not sufficient time to train new workers on site. 6. Once the line is built, any vegetation removed in the servitude is usually allowed to re-establish itself, unless they are alien species and provided it does not pose a fire hazard or damage to the over-head lines. 7. Bird guards are erected on towers to prevent power dips from occurring. Bird flaps are used on the earth cable to protect the birds by preventing them from flying into the less-visible earth cable. 8. Provision is made at all substations to prevent oil contamination from transformers. 9. Stormwater runoff is also controlled from the sub-station sites as the area is flat and impermeable.		
5.	THE DRAFT SCOPING REPORT: FOCUSING ON KEY ISSUES (Stuart Dunsmore) 1. SJD presented an overview of the key issues that were documented in the draft scoping reports. 2. History of the project: Bighorn – Adis – Phoebus transmission line EIA was started in the late 1990's and the Record of Decision (RoD) was awarded in 1999. The servitude was registered and the Bighorn – Adis 400kV line was built. 3. The RoD lapsed and a new EIA needs to be undertaken for the remaining section of the line and the sub-station. 4. The specialist areas on this project are: Avifauna, Ecology, Social and Archaeological. 5. A series of maps showing the ecological, social and archaeological issues from the Draft Scoping Report were presented. 6. There may be archaeological sites within the servitude, especially around granite outcrops. However, these can be avoided by careful placing of the electricity pylons. 7. For this reason, both ecological and archaeological foot surveys will need to be done during the design of the line.		

Item	Point	Action	Date
6.	OPEN DISCUSSIONS FOCUSSING ON COMMENTS, CONCERNS, ISSUES AND IMPACTS		
	1. Conductor theft in the North West province has become a problem on 132 kV lines. This was mentioned as a word of caution with regard to the establishment of a 400kV line. It was noted by JG that theft associated with 400kV infrastructure has not been a problem to date.		
	2. Near Soshanguve, north of the servitude, there is a site of family graves (map reference AA 6 between kilometers 23 and 24 on the Farm Kruisfontein 262-JQ)	pbai (SA) / Eskom Transmission Division (ETD)	
	3. There are informal houses in the servitude near Vametco mine; some of these have been there for many years, and the occupants will need to be relocated. Eskom will need to check the conditions of the servitude negotiation in this regard, and unless occupation of the land has occurred illegally, the occupants will need to be compensated. The local municipality will deal with illegal occupation.		
	4. An observation had been made during the site visit that there were houses under existing distribution line running north-south through Motseng (Map reference W5). It is not Eskom Transmission Division's policy to allow this, but the municipality may differ. This information was presented to Hannes Koster from Tswhane Municipality.		
	5. Soshanguve East & West have been earmarked as a strategic development area and it is expected that developments will commence within the next one to five years (map reference AB7; AB6); this area will is known as Klip – Kruisfontein).	ETD	
	6. Construction camps should be situated as far away from existing communities as possible. This was the case with the camp used for the construction of the sewage plant which will provide reticulation for the new Soshanguve developments (map ref: X7). To his knowledge, Thabo Matsobane was not aware of any problems.	ETD / Margen	
	7. As it is widely practised in the area, prostitution is not expected to increase significantly because of migrant workers during the construction of the line or sub-station.	ETD	
	8. It was strongly suggested that the ward councillors for the Ga-Rankuwa and Soshanguve areas be contacted before construction, to inform them of the proposed transmission line. Thabo Matsobane will send KB contact details of two liaison officers for the areas in question. The EIA study team will contact these liaison officers as part of this study.	ETD	
	9. It was suggested that before construction, the traffic department be informed of the construction of the transmission line such that safety matters and potential traffic disruptions can be addressed.		
	10. The existing cemetery in Ga-Rankuwa is outside the servitude at present, but concern was raised as to the future expansion of this cemetery.		
	11. The exact location of the servitude needs to be confirmed. Andri Nel (Eskom Distribution) has slightly different positioning on its maps to the maps provided for this study. It is understood that Eskom Distribution will need to supply the proposed Soshanguve strategic development area; if a new distribution line is required, the alignment may need to be re-routed if the alignment constricts or conflicts with the proposed Adis – Phoebus 400kV)	ETD / pbai (SA)	
	12. It was suggested that the neighbours of the proposed Adis sub-station site be contacted.	pbai (SA)	
	13. The runoff into the wetland is associated with effluent from a nearby water treatment works in Mothutlung.		
	14. The proposed access road to the proposed sub-station, running to the south of the proposed Adis sub-station, site belongs Vametco. Eskom Transmission Division will need to get the necessary permission to use this for access to the Adis Substation site.	ETD	
	15. There is a possibility that Motholtung has expanded and that residents may be living in the servitude. If so, this will also be applicable to Eskom Distribution's line. This should be checked (Map ref: K7)	ETD / pbai(SA)	
	16. The SAHRA representatives were satisfied with the level of archaeological study undertaken, and agreed with the need for a detailed survey at detailed design stage.		
	17. Floodplains along the route must be considered in the design of the line and placement of the towers.	ETD	
	18. It should be noted that waste dump sites attract birds. The avifauna specialist must consider the potential impact on the birds in this area, particularly birds of prey.	C Van Rooyen	
	19. There is an ancestral monument under construction in Rankotia; though not near the servitude or substation site, it must be protected against damage during construction.	ETD / Margen	
	FOLLOW ON		
	1. All proceedings will also be sent to attendees and those who sent apologies.	pbai (SA)	
	2. The scoping report will be re-issued as a final Scoping Report. Any requests for a copy of this report should be made in writing to Margen or PBAI before the 6th June 2003.	Margen	
	3. The City of Tshwane asked that the report be sent to Michelle Wheeler specifically.	all	
	4. SAHRA requested copies of the current archaeology reports and maps.	Margen	
		Margen	
10.	CLOSURE		
	1. MM thanked everyone & closed the meeting.		

ENVIRONMENTAL IMPACT ASSESSMENT: ADIS-PHOEBUS 400KV TRANSMISSION LINE AND ADIS SUBSTATION.
THE OLD AKASIA TOWN COUNCIL BUILDING (COUNCIL BOARD ROOM) FRIDAY 23RD MAY 2003 AT 12:00
ATTENDANCE REGISTER

Mr/ Ms	KS LO	Name	Organisation	Position	PO Address	Telephone	Fax	Cell	E-Mail
Mr	KS	Thabo Matsobane	City of Tshwane Metropolitan Municipality	Snr Environmental Health Practitioner	P O Box 911-1465 Rosslyn 0200	(012) 521 8166	(012) 542 2759	082 896 0980	tamatsobane@yahoo.com
Mr	KS	Norbert Schiller	Vametco Mineral Corporation	Engineering Manager	P O Box 595 Brits 0250	(012) 318 3266	(012) 318 3201	082 902 0489	
Dr		Julius Pistorius	University of Pretoria	Archaeologist	352 Rosemary Street, Lynnwood 0001	(012) 348 5668	(012) 348 5668	-	Juliuscc@absamail.co.za
Mr	KS	Marcus Matlou	Dept. Mineral & Energy	Inspector of Machinery	1098 Menting Rustenburg	(014) 5656 417	(014) 5656 424	082 4654 345	matlou@melks.nwp.gov.za
Ms	KS	Andri Nel	Eskom North East	Land Development Manager	P O Box 36099 Menlo Park 0102	(012) 421 3316	(012) 421 4793	082 328 2235	andrinel@eskom.co.za
Mr		John Geeringh	Eskom Transmission Divison, Land and Rights	Senior Environmental Advisor	P O Box 1091 Johannesburg 2000	(011) 800 2465	(011) 800 3914	083 632 7663	John.Geeringh@eskom.co.za
Mr	LO	Hannes Koster	City of Tshwane Metro Municipality	Town Planner	P O Box 58393 Karen Park 0118	(012) 521 8178	(012) 521 8188		hannesko@tswhane.gov.za
Mr	KS	Ntsizi November	South African Heritage Resources Agency (SAHRA)	Manager	P O Box 3054 Mmabatho 2735	(018) 381 2032	(018) 381 6953	083 411 4520	Sahra.nwi@iafrica.com
Ms		Carol Streaton	Eskom Transmission Division	Public Participation Manager	P O Box 1091 Johannesburg, 2000	(011) 800 2465	(011) 800 3914		Carol.streaton@eskom.co.za
Mr	KS	Vusi Khumalo	SAHRA	Manager	29 Rockridge Road Parktown, Johannesburg	(011) 482 8365	(011) 482 8196		vkhumalo@khb.sahra.org.za
Mr		Moses Mahlangu	Margen Industrial Services	Consultant – Assistant Project Manager	P O Box 4884 Witbank 1035	(013) 699 0749	(013) 6990917	0828549538	delno@telkom.net
Mrs		Nathalie Smal	PBAI (SA)	Consultant - Assistant on EIA study team	P O Box 3300 Houghton, 2041	(011) 486 4730	(001) 646 5135	082 780 4843	nsmal@iafrica.com
Mrs		Karin Bowler	PBAI (SA)	Consultant - Assistant on EIA study team: Public Participation	P O Box 3300 Houghton, 2041	(011) 486 4730	(001) 646 5135	082 809 7624	karinbow@iafrica.com
Mr		Stuart Dunsmore	PBAI (SA)	Consultant – Project Manager on EIA study team:	P O Box 3300 Houghton, 2041	(011) 486 4730	(001) 646 5135	082 579 9149	pbai@iafrica.com

APPENDIX D: ENVIRONMENTAL IMPACT TABLES

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
ECONOMIC:			
National and Provincial Support	National and provincial importance of project in terms of promoting economic growth in the region and South Africa	Phase of concern: **Operation** Intensity: **Low** Overall significance rating: **High (positive)** Continued economic growth northwest area of the country requires additional and reliable electricity supply. The development of the proposed 400kV Transmission line will form an important element of the wider upgrade and strengthening of the network between the Matimba power station near Ellisras to Gauteng. This network will ultimately link up with the power stations in Mpumalanga. Mitigation/Optimisation: **limited** Significance after Mitigation: **High (positive)**	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Local Benefits ***Also refer to:*** ***Job Creation*** ***EMP***	Economic benefits that the Transmission line will bring to local communities	Phase of concern: **Construction (mainly) & operation** Intensity: **Low to Moderate** Overall significance rating: **Medium to High (positive)** There will be little direct benefit to the local community from the line itself. There will however be indirect benefits through the provision of the associated Adis substation. These will include improved reliability of supply and greater supply capacity, limited job creation during construction & decommissioning, limited local economic growth during construction, etc. Indirect benefits will arise from the improved regional economic growth with which this Transmission line is associated. The line will result in improved regional economic growth, as the mining sector remains the dominant formal employment sector in the North West Province, representing nearly 22% of all formal sector employment opportunities in the North West Province. There are approximately 7 applications for new mines, which will have an effect on the regional economy, and social infrastructure requirements. The line might thus indirectly benefit the local communities. Mitigation/Optimisation: **Maximise use of local skills and services.** Significance after Mitigation: **Medium to High (positive)**	• Inform local authorities and services sectors (materials, tourism, catering, vehicle maint. etc.) of pending construction • Encourage contractor (by contractual conditions) to utilise local labour in unskilled and low skilled activities. • Provide training See also other issues referred.
Tariffs	Increase in electricity tariffs	Any new Transmission infrastructure does not infer a tariff increase to local electricity supply. These tariffs are set independently by the local distribution authority (e.g. municipality)	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Job Creation ***Also refer to:*** ***Local Benefits*** ***Validity of the EMP***	Employment of local labour (South African citizens and people local to the area) and preference given to a local contractor Local people could be employed to do the following: • waste removal • gate installation • bush clearing • catering Local independent Environmental Officer.	Phase of concern: **Construction (mainly) & operation** Intensity: **Low** Overall significance rating: Low to **Medium (positive)** Local labour should be utilised where possible. Due to the specialised nature of the work required, there will be limited opportunity for job creation in the local market during the construction, operation and decommissioning. However, there will be some opportunity for the employment of skilled and unskilled labour during construction, and the contractors will be encouraged to recruit from the local communities. This will form part of the EMP, and therefore the construction contract documentation. In the past, Eskom Transmission Division has awarded the contract for the construction of its Transmission infrastructure to a single contractor and left it to the discernment of that firm to obtain the necessary sub-contractors. There is now, however, pressure from local stakeholders for Eskom Transmission Division to stipulate in the main contract that local contractors should be used. Training of labour is a responsibility of the contractor. Eskom Transmission Division will bring the issue of training to the attention of the contractor Mitigation/Optimisation: **limited** Significance after Mitigation: **Medium (positive)**	In addition to the above: • Utilise a local contractor to undertake erosion maintenance and rehabilitation (operations phase) • Encourage contractor (by contractual conditions) to utilise local labour in unskilled and low skilled activities. • Provide training General recommendation: It is suggested Eskom Transmission Division undertakes a skills audit of generic skills required for the construction of a line. Identify those skills that may be transferred to the local/regional community in timeframes in accordance with the construction programme. See also other issues referred.
Local Opportunities (electricity supply)	Opportunities for local distribution to farmers and landowners who want to draw directly from the Transmission line	Local supply direct to landowners, farmers etc., will not occur from this 400kV Transmission line. Local distribution is the responsibility of the local distributor or municipality. This project is focussed on power transmission rather than local power distribution.	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Tourism	The line will detract from the aesthetic appeal of the natural environment, and will therefore negatively impact on tourism activities.	Phase of concern: **Operation** Intensity: **Low** Overall significance rating: **Low)** An assessment of current and planned tourism activities indicate that this area is not earmarked for tourist development. Game lodges do not feature in this area. Approximately 20% of foreign tourists in the North West Province indicated Game Lodges as their preferred type of accommodation. The major attractions visited in the North West Province by foreign tourists are Sun City (75%), Pilanesberg National Park (52%) and Madikwe Game Reserve. The impact of the line on tourism in this area will not be significant. Mitigation/Optimisation: **none** Significance after Mitigation: **Low**	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
WELL BEING:			
Electromagnetic Fields	Impact of electromagnetic fields (EMFs) on animals, people and vegetation	Phase of concern: **Operation** Intensity: **Low** Overall significance rating: **Potentially High (perceptive)** International research into this issue has been inconclusive and therefore Eskom Transmission Division adopts the precautionary principle in the control and restriction of activities taking place within a servitude. The 130m servitude currently registered for the line prevents the use if the land for habitation or place of work. Outside the servitude the EMF levels drop to normal background levels. Mitigation/Optimisation: **monitor occupation of land around line during operation** Significance after Mitigation: **Low**	• Monitor occupation/activity in the area within Eskom ownership around the line.
Dust & Noise	Dust & noise control during the construction phase.	Phase of concern: **Construction** Intensity: **Moderate to low** Overall significance rating: **Moderate to Low (adjacent to residential areas)** There is a risk of some dust and noise generation during the construction and decommissioning phases. These will be of a temporary nature, and can be controlled through good site management. Mitigation/Optimisation: **general site management** Significance after Mitigation: **Low**	• Keep intrusive construction and operation of heavy machinery to normal working hours. • Ensure machinery and vehicles in good working order • Any blasting to be done after informing local public • Awareness of windy conditions, residential areas and dust producing operations
Corona (Noise)	The effect of the corona (low "buzzing" noise) may be noticeable in properties immediately adjacent to the servitude.	Phase of concern: **Operation** Intensity: **Moderate to Low** Overall significance rating: **Low** It is expected that houses adjacent to the servitude may experience some noise from the corona, usually during wet weather. This is seen to be of low to moderate significance, typically less of a disturbance than busy	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
		road traffic. Houses further away are expected to experience little or no noise. Mitigation/Optimisation: **None** Significance after mitigation: **Low to Moderate**	
Use of creosote poles ***Also refer to: Impact on fauna and flora***	Creosote poles may be used during the project and may have a negative health implications and an ecological impact Areas of storage for the creosote poles will need to be appropriately managed.	Phase of concern: **Construction** Intensity: **low** Overall significance rating: **Moderate to low** Creosote is believed to have carcinogenic properties. Thus, it is possible that creosote may pose a health risk to the construction workers that handle the treated poles and to fauna and flora. However, the use of creosoted poles in construction is very low (stringing process where the transmission lines span roads). These temporary structures will be dismantled within approximately two weeks thus limiting potential for contamination Handling procedures, health and safety standards, pole specifications and ground remediation methods should be presented in the environmental management plan Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Low**	• Ensure proper handling procedures by the stringing team • Use of PVC sleeves on newly creosoted poles • Avoid use near watercourses and groundwater sources (though none of the latter noted in the study area)
HIV/Aids	***Refer to Inmigration of construction workers***		

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Fire ***Also refer to:*** ***Impact on flora*** ***Access roads*** ***Erosion***	The construction and operation of the line may alter the occurrence and management of fires in the area. The change in the nature of fire hazards and events can have safety, economic and ecological implications.	Phase of concern: **Construction and operation** Intensity: **Moderate to High** Overall significance rating: **High (construction) to Moderate (operation)** Fires are a natural part of the environment in the study nearby veld areas, and is an important part of the management of grasslands in particular. The presence of the line is not seen to change the nature and occurrence of fires during operation, and careful management during construction will minimise veld fire incidents. The line operation should not be significantly affected by fires. Eskom is currently developing a Veld Fire Management Plan Mitigation/Optimisation: **Identify 'hotspot' areas during design and raise height of towers and line in these areas. see also EMP requirements** Significance after Mitigation: **Low**	• Contractors to be trained in fire fighting in veld and woodland areas (fire beaters and backpack sprayers to be made available with each construction team) • Maintain vegetation in servitudes, particularly hotspot areas. • Contact telephone number and name of Eskom operations control room to be published for line management (eg switching off line) during extreme fire conditions. • Publish reporting procedures for fire fighting and line operations – eg names of local fire fighting representatives (eg conservancy and game farm representatives, farmers associations) and reporting of location by pylon number • Access routes to servitudes to be clearly marked with pylon numbers See also Eskom Transmission's Generic EMP

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
AESTHETICS:			
Visual impact	Visual impacts will be significant in the local area	Phase of concern: **Operation** Intensity: **High** Overall significance rating: **Moderate** The Visual Absorption Capacity of the area is considered to be low to moderate – ie the line will blend into the surrounds to a limited extent. However, the impact is reduced by the flat terrain and bush vegetation in the general vicinity making the line visible only at relatively close proximity and some intermittent views at a distance. From vantage points in the koppies to the south, it is seen that the wider area is already disturbed visually by mining, industrial and urban development. A particularly significant presence in the area is the mine and tailings just to the east of the site. Hence the usually high visual impact of a new line is considered to be moderate in the context of the local environment. Furthermore, the cross rope tower structures that will be used for much of the route are much less visually intrusive than the older and more common strain tower style of design. Nevertheless the new line will still be noticeable in the area. Mitigation/Optimisation: **none** Significance after Mitigation: **Moderate**	Construction Phase: • Follow least visually intrusive access routes. Do not scrape new roads where possible. Rather undertake bush clearing only. • Siting of any borrow pits (few, if any, anticipated) to consider visual impact • Rehabilitation to proceed as early as possible in the construction process. Rehabilitation of access roads, borrow pits, spoil storage areas and eroded areas to be addressed in particular.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Loss of sense of place	Negative impact on the spiritual, aesthetic and therapeutic qualities associated with the area in the vicinity of the line	Phase of concern: **Operation** Intensity: **Moderate to high** Overall significance rating: **Low** It is considered that both the local and wider area are considerably disturbed from the original bushveld character. Even the aesthetic and visual merit of the area has been changed due to the spread of urban and industrial development, and even the prominent feature of the koppies to the south have been severely affected by granite mining. Additionally, there are many linear features in the environment that are characteristic of urban development (eg distribution lines, railway lines and particularly roads), and hence the new line will not be out of character in the new sense of place that is current. Mitigation/Optimisation: **none** Significance after Mitigation: **Low**	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
SOCIAL:			
Relocation of people ***Also refer to: Compensation***	Will there be a need to relocate people, and their property/houses? What are the likely impacts? Will they be compensated?	Phase of concern: **Construction** Intensity: **low** Overall significance rating: **moderate to high** There are a few properties within the servitude just south of the Vametco Mine (location 3 on Map 5.1), including a scrap yard business and three residential dwellings. It is understood these were established prior to the registration of the servitude and will need to be moved. It is further understood that Eskom transmission Division will relocate and compensate the inhabitants. New land must be sourced in association with the local municipality for Mothotlung. There is also an encroachment of informal housing from the northern side of the line just south of Ga-Rankuwa Zone 17 (location 28 on Map 5.2). Some of these residents may need to be moved and should be done in conjunction with the support of the relevant Ward Councillors. Additionally, there are a few of locations in the servitude where subsistence level cultivation is being carried out. It is understood that, though these are illegal in terms of the registered servitude Eskom Transmission Division will compensate for any loss of crops as a result of construction. Mitigation/Optimisation: **Eskom to engage with land users currently within the servitude and make arrangements for relocation of property.** Significance after Mitigation: **moderate to low, low positive**	Design phase: • Compensation payments to give careful consideration to property values of traditional houses • Relocation and compensation to give account for disruption of access to transport, schools, clinics, etc. • All relocations to be undertaken with local authority support. Construction Phase: Ensure necessary services (water, electricity, access, river crossings, etc) as appropriate are installed prior to the relocation of the families.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Disruption of social networks and daily movement patterns ***Also refer to:*** ***Location of Construction Camps*** ***Traffic safety***	The social routine and social networks may be disrupted during the construction process.	Phase of concern: **Construction** Intensity: **High** Overall significance rating: **Moderate** The presence of construction teams, construction camps, traffic etc could have a significant impact on local community routine. Interaction between the communities and the construction teams can be influential in disrupting local customs and structure. The occurrence of this is unpredictable, but needs careful management during construction. Mitigation/Optimisation: **see EMP requirements**. Significance after Mitigation: **moderate to low**	• careful planning of construction camps (see below) • strict adherence to speed limits. Disciplinary action for reckless and drunk driving • avoid construction vehicle movements during peak hours, start and end of school time (students on the roads), cultural and worship periods, etc. • limitation on construction worker movements after hours, and particularly week-ends. • monitor local security (prevention of theft, etc.)
Location of construction camps ***Also refer to:*** ***Disruption of social network*** ***Impact on water sources*** ***Impact on fauna and flora*** ***Poaching of fauna*** Poaching of flora ***Impact of construction camps***	The siting of construction camps in terms of: • Social issues • Ecological issues • Camps should be above any 1:100 year flood line. This refers particularly to the placement of toilets. • Waste disposal management	Phase of concern: **Construction** Intensity: **Moderate to High** Overall significance rating: **High** It is expected there will be one large construction camp for the line. It's location will be decided by the contractor who will negotiate land with the landowner. However, its location may have impacts on a number issues: • disruption of the local communities (see above) • traffic disruption (see traffic safety) • security of local communities (see above) • increase in the sex trade and sexually related diseases (see below) • poaching of fauna and flora (see below) • waste disposal (see below) • pollution from spillages (fuel) However there are, as discussed in the sections above, potentially positive impacts such as: • the support of local services, shops, etc. • purchase of local materials • use of local skilled and unskilled labour (albeit a limited opportunity given the specialised nature of the construction.)	Design Phase: Each contractor will have different methods of dealing with site security, staff management, vehicle management, etc. Additionally the site selection will also be dependent on local aspects such as material availability, services required, and specific design criteria for the line. **However, it is recommended that Eskom Transmission Division needs to be intimately involved in the site selection process with the contractor.** It is suggested that the EMP should be developed to include a plan for the site selection of the construction camp. The plan will guide the contractor in the site selection, and must therefore set key objectives based on the items listed adjacent. The contractor will then indicate in his tender how he will achieve these objectives. The drafting of this element of the EMP therefore needs to be done prior to the tender process – ie during the design phase. It is also suggested to follow the recommendation of the local community and place the camp some distance away from existing residential areas.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Location of construction camps …..continued		Both the potentially positive and negative impacts are affected by the location of the construction camp, particularly its proximity to populated and economically active areas. With poor planning of the location, and in combination with poor site management, the net impact of all the above issues could be highly significant and negative. With careful planning and management, the outcome could be highly significant and positive. Consultation with the local community has identified that, they would prefer the construction camp to be placed away from existing residential areas. In doing so, negative impacts will be minimised. If effectively managed this impact may be changed to a low but potentially positive impact. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Low (positive)**	Construction phase • Acknowledge local community requirements and keep the construction camp away from residential areas. • Implementation of the EMP • Eskom Transmission Division to be part of the site selection process and to approve the final decision. See also Eskom Transmission Division's Generic EMP
Gravesites ***Also refer to: Consultation***	Protection of gravesites, disinterment of graves	Phase of concern: **Construction** Intensity**: Low** Overall significance rating: **Low** There is the potential for gravesites to be found within the servitude. They will be identified during the archaeological survey during the design phase of the project. These may be left untouched in the majority of cases as the tower may be moved up or down the centre line of the servitude. However, the cultural acceptability of this will need to be explored with the owners of the grave, if they can be traced. Management guidelines will be set up by the archaeologist on completion of the site survey. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Low**	Design Phase: • Survey preferred route and identify all grave sites • Adjust tower locations accordingly • Consultation with owners and AmaKhosi as to options for diversion of line, etc. • Map location of all gravesites along the route Construction Phase: • Contractor to be informed of all gravesites • Access roads, camps, storage areas, etc to avoid gravesites – minimum 100m clearance is suggested. • Any damage to gravesites must be reported to the Environmental Officer and the 'owner' immediately.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Traffic Safety ***Also refer to:*** ***Access to Properties*** ***Location of Construction Camps***	Road traffic safety, particularly relating to construction traffic.	Phase of concern: **Construction** Intensity: **Moderate to high** Overall significance rating: **Moderate to High** General maintenance and operation traffic will be limited (usually 1 vehicle) and intermittent (once a year) and is not expected to have any significant impact on local traffic. No reports of problems associated with the existing lines have been received. Construction traffic will be greater in volume and it will be experienced in phases at any one point. Most of the construction traffic will use the servitude access roads, but use of the local farm and district roads will be required. Construction traffic will need to abide by the associated speed limits and traffic by-laws and regulations for the area. Abnormal loads will need the necessary authorisations. Particular care in the populated rural areas will be required. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Low to moderate**	• Construction traffic to comply with national traffic laws and local by laws. • All vehicles to be in good working order, particularly brakes as there are many pedestrians and animals in the area. • All drivers to have full drivers licences • Traffic movements for heavy and abnormal vehicles must be planned and agreed with the Environmental Officer(s). • Construction traffic to be confined to normal working hours. However, particular care to be given at school opening and closing times. • Damage caused by construction traffic to be repaired immediately to prevent damage/accidents to road users.
Inmigration of construction workers	***Refer to Construction camps***		

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
LAND ISSUES:			
Compensation	Details about compensation	Eskom Transmission Division has already finalised the registration of the servitude and paid compensation to the respective landowners This is a private matter between the two parties.	• The EMP should outline Eskom Transmission Division and Contractor responsibilities in these instances
	If land is being leased, who is compensation paid to?	Eskom Transmission Division negotiates directly with the Landowner and compensation is paid to him/her.	
	Will Eskom compensate for cattle that have been stolen by workers residing in the construction camps?	The contractor should be held responsible for proven theft. An additional concern is that the construction camps could be seen as an ideal opportunity for locals to commit crime under the guise of it being the construction workers. The private contractor should have security mechanisms in place to cater for any such potential problems.	
Land evaluations	How is land evaluated?	An independent evaluator is appointed by Eskom. If there is a disagreement, a second opinion can be sought.	
	How can the independence of the evaluator be guaranteed if Eskom is paying his fee?	The landowner can nominate an independent evaluator. Also, evaluators subscribe to a code of conduct However, it is understood that the servitude is registered and that no further negotiations will be required.	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Property value reduction	Negative impact on property values	Phase of concern: **Operation** Intensity: **High** (along entire route) Overall significance rating: **Low positive** It is understood that Eskom Transmission Division has completed a formal land negotiation process with all directly affected landowners. Though this requires confirmation for a few locations along the route. The valuation of the land takes into account current landuse and (proven) plans for development. Land values and their fluctuation are dependent on many variables and market conditions, many being area specific. However, it is understood that the negotiation process should address the issue of loss of value, and it is dependent on the landowner and Eskom Transmission Division to ensure this is covered in any agreed compensation. Mitigation/Optimisation: **none anticipated** Significance after Mitigation: **Low (positive)**	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
FARMING RELATED ISSUES:			
Access to properties ***Also refer to:*** ***Poaching of fauna and flora*** ***EMP and process***	The creation of new or improved access to properties, for access to the line, brings potential associated issues that need to be considered. Minimising on the use of access gates. Gate security Maintenance of assess roads	Phase of concern: **Construction and Operation** Intensity: **Moderate to High** Overall significance rating: **Moderate to High** Access to properties is established in agreement with landowners. The problems associated with this issue include: • Unauthorised access to private land (leading to poaching, theft, damage, etc.) • Poor gate management • Access road degradation and maintenance • Uncertain responsibilities (between landowner and Eskom Transmission Division) The resulting theft or damage can be significant and expensive. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Low**	• Farm gates need to remain closed unless agreed with the landowner. • Where possible, current Eskom gates should be used rather than establishing new gates • Security control of gates must be agreed with the landowner (dual locks, etc) • During construction, the landowner needs to know who will be gaining access to his/her property. Contact details need to be provided. • The local farming association and affected landowners should be informed of the timing of construction activities and/or movement through farm gates • Requirements for access control should be set out in the EMP. Special conditions set by the landowners in the land negotiation process will be incorporated in the EMP • Responsibilities during construction and operation must be clearly set out in the EMP (including contact details)

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Access roads ***Also refer to:*** ***Access to properties*** ***Erosion*** ***Fire fighting*** ***Visual impact*** ***EMP***	The physical creation and use of new roads, or increased use of existing roads will also have associated impacts	Phase of concern: **Construction & Operation** Intensity: **High** Overall significance rating: **potentially High** This issue shall be addressed in the agreements between Eskom Transmission Division and the affected landowners for the life of the Transmission line. Eskom Transmission Division undertakes to maintain roads and access routes used for maintenance and access of the line. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Moderate to low**	Construction Phase: • Use existing roads where possible • Establish maintenance responsibilities and inform landowner • All erosion and water damage on access roads to be rehabilitated before construction is complete. (it may be required that interim damage will also need to be repaired – to prevent stock losses, etc – this will need to be monitored by the Environmental Officer and landowner and the necessary repairs undertaken. • Access roads through wetland areas to be avoided • Eroded areas to be avoided unless proper erosion management is put in place Operation Phase: • Responsibilities for maintenance to be clearly set and recorded in the EMP. • The Eskom Transmission Division regional offices must keep a record of all visits to work or inspect the roads. • The Environmental Officer for the Operations Phase to undertake spot checks on access road conditions. • It is recommended that the Environmental Officer for the Operations Phase is an independent person with knowledge of the area, and preferably locally based. • It is recommended the national office representative carries out an annual audit of the regional office with particular attention to road and erosion maintenance.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Loss of agricultural potential	Restrictions on landuse and activities will impact on the agricultural potential of the land.	Phase of concern: **Construction & operation** Intensity: **moderate** Overall significance rating: **Low to Moderate** There is some agricultural landuse along the servitude, and it is understood that any loss of economic potential had been addressed via the servitude negotiation process. However, it is expected that all current landuses within the study are will be able to continue with the new line in place. In most cases the pylons can be moved to avoid certain activities. Mitigation/Optimisation: **none anticipated** Significance after Mitigation: **Low**	
Season for construction activities ***Also refer to:*** Impact on flora and fauna ***Erosion*** Fire	Certain activities (construction and operation) may have greater impacts on the environment and agricultural activities at certain times of the year.	Phase of concern: **Construction** Intensity: **High** Overall significance rating: **Moderate to high** The critical seasons are seen to be the end of the dry season July – September (fire risk), and the wet season November – March (erosion and waterlogging) This is a complex issue as the limited timeframe available before start of operation would mean that there will be limited flexibility in the construction programme. However, good site management during construction should minimise much of the damage and effective rehabilitation will mitigate most of the remaining damage. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Moderate to low**	On the assumption that construction will be continuous for at least 6 months it will be difficult to avoid the critical seasons. Hence the following are recommended for application via the EMP: • Training of construction teams regarding sensitive areas and critical seasons • Undertake rehabilitation as soon as possible • No fires on site • Construction team members are not to disturb fauna and flora, but particularly in the critical seasons • Avoid wetlands and water logged areas • Use track vehicles (earth moving, cranes, etc) in wet conditions to minimise surface damage. • Avoid eroded areas.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
NATURAL ENVIRONMENT:			
Erosion ***Also refer to:*** ***Access roads*** ***Auditing of EMPs***	Erosion on access roads may become a problem.	Phase of concern: **Operation and construction** Intensity: **Moderate** Overall significance rating: **Moderate to low** The soils in the area and the flat terrain result in a relatively low risk of water or wind erosion and there is limited evidence of erosion in the vicinity. Erosion due to heavy traffic in wet or waterlogged conditions is a potential problem if the main access road is not well constructed (eg vehicles create new paths around waterlogged areas) Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Low**	Construction Phase: • All access roads to be carefully planned and selected – where possible use existing access roads • A soils specialist should be consulted during this exercise. • Rehabilitate all existing erosion areas along access routes used for construction and operation • Avoid all wetland areas • Crossing of all streams and drainage lines to be stabilised immediately. Rehabilitation to take place as soon as possible. • Environmental Officer to inspect all roads with landowner before contractor leaves site. A revisit before the end of the 12 month contract period is also recommended so that the contractor can repair any unstable areas. Operation Phase • An independent Environmental Officer should be employed to monitor the environmental status of the line. • Agreements for maintenance between Eskom Transmission Division and the landowner must be clearly stated • Due to the nature of this area, the new line and access roads should be inspected twice in the wet season. Any necessary repairs to be effected by the Eskom Transmission Division regional office immediately

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Impact on fauna ***Also refer to:*** ***Season for construction activities*** ***Erosion*** ***Fire*** ***Impacts on flora***	Impacts on the natural fauna in the area	Phase of concern: **Construction and Operation** Intensity: **Moderate to low** Overall significance rating: **Low** The immediate area has been experiencing increasing development in recent years, and the presence of the indigenous fauna for the area is seen to be low and limited to small mammals (ground squirrels, rats, mice, etc.). Information on the presence of reptiles and insects is limited. However, there are some sensitive areas within the servitude that will need to be avoided during construction, including: • Granite hills and outcrops • Watercourses • Wetland areas As for the assessment of impacts on fauna, the disturbed nature of the area means that many of the indigenous species will no longer be present. However, an opportunity exists for protection of the habitat within the servitude, potentially re-establishing the something of the original vegetation of the area and encouraging the reintroduction of the indigenous fauna and avifauna. This is seen to be a small but significant positive impact of the development of the line, and has proven to be important in other areas where the presence of a servitude in developed areas offered 'green corridors' to the local communities. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Low positive**	Design Phase: See recommendations under 'Impacts on flora' Construction Phase • Avoid wetlands and watercourse crossing with access roads • Minimise cutting of bushveld areas inside the servitude. • Keep activities within the servitude during construction. • Spoil storage areas outside the footprint to be carefully selected with the assistance of an ecologist (see 'Impact on flora'). • No open fires on site • All workers to be aware of fire risk. Provide a 'smoking area' on site for better control. • Rehabilitation to begin as early as possible. • No cutting of trees or collecting of firewood. • Rehabilitate potential erosion sites immediately during wet season. Operation Phase • Monitor plant rehabilitation See also rehabilitation opportunities under 'Impact on flora'.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Impacts on Avifauna (birds)	Impacts on birds. Particular concern regarding impacts on birds attracted to the waste dump site.	Phase of concern: **Operation** Intensity: **Moderate** Overall significance rating: **Low** The disturbed nature of the wider environment means that many of the 'power line sensitive' birds have moved away from the area. It is considered there is a low likelihood of collisions with the Secretary bird, Cape Vulture (both Red Data), Black Eagle (Swartkoppies range) and the White and Abdim's Storks, and that destruction of important breeding habitats is unlikely due to the already disturbed nature of the area. Furthermore, the design of the cross rope suspension towers does not provide for good perching sites, resulting in less likelihood of electrocution. The existing dump site (see location 5 on Map 5.1) will attract certain scavengers such as cattle egret, pied crow and yellow-billed kite. None of these have any record of collisions with transmission lines, and are seen to be agile and unlikely to be affected by the new line. Mitigation/Optimisation: **none anticipated, but see EMP requirements.** Significance after Mitigation: **Low**	Construction • Monitor collisions • Contractor and his staff to be made aware of surrounding environment and prevented from raiding nests etc. • Construction work to be confined to servitude • Avoid all wetland areas • Install bird guards and bird flaps on the tower structures and lines where applicable. Operation phase • Establish monitoring programme.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Impact on flora ***Also refer to:*** ***Season for construction activities*** ***Erosion*** ***Fire*** ***Impacts on fauna***	General impacts on flora.	Phase of concern: **Construction and operation** Intensity: **Moderate** Overall significance rating: **Moderate to low** The area is seen to is seen to be generally degraded from its original natural condition. In places where natural veld still exists, there is often a prevalence of pioneer species due to poor management (eg overgrazing) in the past. No sensitive plant species or Red Data species were identified and though a detailed survey is recommended during the design phase (for the placement of the towers), it is envisaged that any sensitive plants found could be removed or the tower position moved to protect it. The presence of Red Data species is expected to be mainly geophytes, which can be moved locally id necessary. There will be limited need for the cutting of trees within the servitude as most of the natural species are sufficiently low in height. However, there is opportunity to thin out some of the existing vegetation through the removal of woody species in overgrown sections. As with the assessment of the impacts on fauna, there is opportunity for the rehabilitation and protection of the area in the servitude after construction. This would offer limited but significant mitigation if implemented. Mitigation/Optimisation: **refer to EMP requirements** Significance after Mitigation: **low negative to low positive**	Design Phase: • Ecologist to undertake a foot survey to assist in selection of tower placements. • Ecologist to assist in preparation of a rehabilitation plan for the site, including: o consideration of most suitable locations for temporary spoil storage, o protection of indigenous species for re-establishment and propagation within the site o removal of alien species o rehabilitation programme • Where appropriate, planting of trees to reduce visual impact of the sub-station (though it is recognised that the potential for screening is very limited given the heights of the indigenous trees) Construction Phase • *As for Impact on Fauna*

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Importation of alien vegetation	Importation of alien vegetation through building materials	Phase of concern: **Construction** Intensity: **Moderate** Overall significance rating: **Moderate** This is seen to be an issue that can be minimised through careful management during the construction and rehabilitation process. This should therefore be addressed in the EMP. Enhancement may be achieved through the eradication of existing alien species with the area of ownership. Mitigation/Optimisation: **refer to EMP requirements** Significance after Mitigation: **low**	Construction Phase: • Contractor to be made aware of invader species in the area. • Operation in these areas to include the eradication of the alien plants and treatment of stumps, etc. • Importation of materials that may be contaminated by alien plant seed etc. is to be obtained from controlled sources. • Storage/stock piling of materials should not be in alien plant areas for fear of disturbance and spreading. Operation phase: • Monitor alien plant areas and control further spreading.
Impact of herbicides ***Also refer to: Impact on wetlands***	Herbicides will be used during the construction and operation phases of the project to clear and potentially manage the line.	Phase of concern: **Operation** Intensity: **low** Overall significance rating: **Moderate** The area within the servitude is kept clear of weeds and vegetation growth by the selective use of herbicides. Despite the potential for the impact on surrounding vegetation, it is recognised that Eskom Transmission Division has strict management and operational guidelines as to the use of herbicides on its sites. It is Eskom Transmission Division's policy to only use herbicides where necessary and only after site investigation. No specific herbicides are prescribed. The most appropriate will be selected. Monitoring is undertaken and impact on adjacent plant life and water resources are carefully investigated. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **low**	Operation phase: • Refer to Eskom Transmission Division's Generic EMP • A monitoring programme and responsibilities should be drafted of the use of herbicides is recommended.
Impact on conservation areas		There are understood to be no conservation areas within or adjacent to the servitude.	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Impact of construction camps ***Also refer to: Location of construction camps***	The construction camps may have an impact on the natural environment • should be at least a hundred meters away from any water source • should be above the 1:100 year flood line. This refers particularly to the placement of toilets.	Phase of concern: **Construction** Intensity: **High** Overall significance rating: **Potentially High** The location of the camp is normally at the discretion of the contractor who will reach an arrangement with a landowner. This issue is discussed in more detail above in *Location of Construction Camps* Impacts on the physical environment will be focussed on • drainage (stormwater) • erosion • wastewater (vehicle washing, etc.) • sewage • solid waste – wind blown and litter (rubble, plastic, steel, etc.) • fire (spreading from camp fires) • pollution – fuel spillages, broken cement bags, etc. The impact of all the above can be highly significant dependent on location, but all can be managed and mitigated. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **moderate to low**	Design phase Eskom Transmission Division to be actively involved with the contractor in the selection of the construction camp. Refer to *Location of Construction Camp* for more detail. It is recommended that the ecologist and soils specialist be consulted at this stage. Construction phase • site to be located above the 1:100 year floodline and at least 100m away from a watercourse or borehole • a formal stormwater drainage system to be put in place (can use infiltration methods) • erosion protection and sediment traps to be placed at stormwater outfalls from the camp • wastewater needs to be treated before discharge to any water source (settlement treatment may suffice dependent on initial water quality) Use of detergents, chemicals, etc to be avoided. • Chemical toilets to be provided if waterborne services not available. • A solid waste service must be put in place. Disposal of solid waste at licensed waste dumps only. Wind blown waste to be controlled • Open camp fires to be avoided if in sensitive areas. • Fuel storage and material storage areas to be secure from unauthorised access. Provision of spillage bunds or sumps for fuel spillage or leakage. • Environment Officer to be appointed to monitor construction camp and to implement EMP. Contact details to be made available to general public. • Camp site to be rehabilitated after completion of construction.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
CULTURAL AND ARCHAEOLOGICAL SITES:			
Palae-ontological Sites	Impact on fossils.	No fossil sites have been identified in the study area	
Archaeology	Impact on iron age sites.	Phase of concern: **Operation** Intensity: **High** Overall significance rating: **Moderate to low** A large number of Iron age sites are known to exist within the study area and for this reason the study area is considered archaeologically sensitive. However, from knowledge of the area it is anticipated that there are few sites within the servitude and that most of them will be of low significance, and will merely need to be surveyed and recorded. It is recommended that a Phase 1 level survey is undertaken once the initial placement of the towers is made known, ie at detailed design stage.. It will then be possible to shift tower locations in the local vicinity if necessary. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Low**	Design Phase: • Appoint archaeologist specialising in the iron age to carry out a survey of the preferred route, giving attention to proposed tower locations. • Report back to SAHRA and agree way forward. • Shift tower locations where necessary • Update EMP requirements for the construction phase Construction phase • Undertake site excavations by an approved specialist at tower locations as required prior to excavation of the foundations. • Log results and send data back to SAHRA • Follow requests by specialist archaeologist.
Cultural and Historical Sites	Impact on cultural and historical sites.	Phase of concern: **Construction** Intensity: **Low** Overall significance rating: **Low** Historical dwellings or homesteads may occur near the boundaries of the servitude, though none are anticipated from initial inspection of the area. However, during the abovementioned archaeological survey in the design stage, attention will also be given to historical sites. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Low**	Undertake detailed survey during detailed design of transmission line, and report findings to SAHRA.
Impact on National Heritage Sites		There are understood to be no National Heritage Sites within or adjacent to the servitude.	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
MANAGEMENT RECOMMENDATIONS:			
Environmental control officer ***Also refer to:*** Validity of the EMP	Appointment of environmental control officers (or Environmental Officer)	An environmental control officer should be appointed for the construction phase and a regional environmental manager should be appointed for operation. The roles, responsibilities and contact details should be set out in the EMP	Further to the points adjacent, it is recommended that the EMP is developed and implemented to cover the life of the project from environmental authorisation to decommissioning. Hence the EMP should cover: • Design • Construction • Operation • Decommissioning The EMP is a working document, and need only address the current phase in any detail. It will therefore evolve and need to be reviewed at regular intervals. The role if the Environmental Control Officer will form an important part of the development of the document, and different officers may be involved for each phase, or just over time. The contact details of the Environmental Control Officer needs to be published to all affected parties.
	Liaison with Landowners	Landowners should have access to an environmental control officer with whom they can lodge grievances during construction.	
	The environmental liaison officer must have a formal education.	As above.	

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
PROCESS:			
Importance of the EMP ***Also refer to: Management Recommendations Process***	The role of the EMP	The EMP is a key document that must be applied for the life of the development – i.e. planning, design, construction, operation and decommissioning • It sets out important environmental aspects specific to the development and how they should be managed for each phase of its life • It is initially founded on the recommendations of the EIA, but it will evolve further with time • The EMP should identify roles and responsibilities of those departments and individuals responsible for its implementation. Names and contact details of key personnel must be set out in the EMP • It is a legally binding document if it is a condition of the "Record of Decision" awarded by DEA&T • The EMP would be a "Quality Document" where environmental management systems (ISO 14000) are operational in an organisation. Eskom Transmission Division is currently in the process of seeking accreditation under ISO 14000 (see below) • The EMP should include a communication strategy that details communication channels between the Environmental Control Officer and Landowners. • The EMP should specify clearly grievance procedures that disgruntled landowners can follow.	The EMP should be structured to include the recommendations adjacent.
Validity of the EMP	What assurance can be given that the EMP will be implemented with due diligence an in a manner appropriate to the local area?	A local Environmental Officer with knowledge of the area should preferably be appointed. This would also ensure independence.	It is vital that appropriately experienced/qualified staff are made responsible for the implementation of the EMP.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
CONSTRUCTION CAMP ISSUES:			
Inmigration of construction workers ***Also refer to:*** ***Compensation*** ***Location of construction camps,*** ***Fire*** ***Poaching of fauna and flora***	Inmigration of construction workers may lead to: • Increased theft and poaching – fruit, stock, farming implements, irrigation pipes due to improved access to farms • Increased social problems – drinking, violence, prostitution and HIV/Aids	Phase of concern: **Construction** Intensity: **High** Overall significance rating: **Potentially moderate to high** The specialised skills required for the construction of a transmission line will mean that most of the construction workers will be brought in from outside the local area, and quite possibly outside the region. The social implications of this can be significant and is discussed under the issues mentioned above. An associated issue is the possibility of a sharp increase in the sex trade and the associated risk of sexually transmitted diseases, including HIV/AIDS. It is reported that prostitution is present in the area and control will need to be given to the involvement of construction workers in the local communities. There issue needs to be given particular attention in the selection of a camp site. It is recommended that community officials be consulted of the intended location of the camp as part of the construction planning process. Mitigation/Optimisation: **see EMP requirements** Significance after Mitigation: **Moderate to low**	• Eskom Transmission Division to be involved in the planning of the location of the construction camp. • Movements of construction workers to be carefully monitored, especially after hours and week-ends • Information and education relating to sexually transmitted diseases to be made available to both construction workers and local community. This programme to be repeated during the construction programme. • Medical support to be available (sensitivity to local customs to be upheld) • Contractor and Environmental Officer to maintain contact with community representatives (eg regular/scheduled meetings) to monitor conditions.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
PROCESS:			
Consultation prior to construction ***Also refer to: Management Recommendations EMPs***	Landowners should be consulted prior to construction.		The EMP should detail a communication plan that will be effected prior and during construction. The Environmental Control Officer should accept responsibility for giving effect to the communication strategy.
GENERAL			
Flood risk	Risk of damage to the Transmission line and disruption of services due to flooding.	The route of the transmission line crosses a number of watercourses along its 26km. Many of these are seasonal streams and none are considered to be 'main river' in size. Risk of flood damage is considered to be small. However, it is recommended that towers at the crossing points are placed at least 50m away from the watercourse to minimise any such risk.	Design phase to ensure placement of towers a minimum of 50m away from watercourses at crossing points.

ISSUE	DETAILS	GENERAL ASSESSMENT AND EMP REQUIREMENTS	
		COMMENT	EMP Requirements
Potential temporary and long-term disruption of infrastructure and services ***Also refer to:*** ***Traffic safety*** ***Safety during construction***	Potential disruption of: • Local services (water, electricity) • The local irrigation canal network. • Local traffic • Waste dump site	Disruption of local services (water, electricity, etc.) due to the construction process is expected to be of low probability as most of the construction activity will be away from most services and will remain 'off-line' from the local electricity network until start of operation. Eskom should negotiate with the Dept of Transport in terms of registration of road servitudes and access points. Permission is required from the Dept of Transport to: • Access off existing provincial roads • Cross existing provincial roads For impacts on local traffic see 'Traffic Safety' above Impacts on the local canal network should be minimal. Construction vehicles should not cross any canals other than at formal and safe crossing points (with consideration to weight of vehicle). The new line is not expected to affect the operation or closure of the existing dump site (location 5 on Map 5.1). the line alignment is understood to be south of the main working area and will traverse any operation there. However, Eskom Transmission Division will need to ensure the location of the towers will not interfere with operations at the site, and that the minimum ground clearance of the line is high enough to ensure normal operations at the site. Eskom Transmission Division will need to liaise with the local municipality in this regard.	Eskom Transmission Division to contact the Dept of Transport and local Irrigation Board to get the necessary permits for access. A wider services search will need to be undertaken by the design team. Any likely crossing of the canals in the area should be first reported to the Eskom Transmission ECO. Eskom Transmission designers to liaise with the local authority regarding the tower locations and line height at the dump site.

APPENDIX E: LEGAL REVIEW

LISA HOPKINSON ENVIRONMENTAL LEGAL CONSULTING SERVICES

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TO: PBA INTERNATIONAL (SA) (PTY) LIMITED

ATT: MR STUART DUNSMORE

TELEFAX NO: 011 – 646 5135

12 MAY 2003

Dear Stuart

RE: ESKOM – APPLICATION FOR AUTHORIZATION TO CONSTRUCT THE ADIS - PHOEBUS 400kV TRANSMISSION LINE – ENVIRONMENTAL IMPACT ASSESSMENT

1. BACKGROUND

The applicant in the above matter is ESKOM, a statutory body established by virtue of the Electricity Act of 1922 read with the ESKOM Act of 1987.

The activity for which authorization is being sought is the construction of a 400kV transmission line that will extend some 28 kilometres from a substation that will be erected at ADIS near Brits in the North West Province, to a substation at PHOEBUS just south of Shoshunguwe in the Gauteng Province, so as to enable ESKOM to convey a reliable supply of electricity across this area for use by distributors of electricity (eg. municipalities in the area), and other third parties.

2. THE LAW

This activity is defined in Government Gazette Notice No. R1182 dated 5 September 1997, and more specifically item 1(a) of Schedule 1 of the said Notice, as being an activity which may have a substantial detrimental effect on the environment, and the provisions of sections 21, 22 and 26 of the Environment Conservation Act No. 73 of 1989 ("ECA") accordingly apply to the proposal by ESKOM to undertake such an activity.

Section 22(1) of ECA requires that ESKOM should apply to a competent authority for written authorisation to conduct the proposed activity. Section 22(2) of ECA states that such a competent authority may only issue such an authorisation after consideration of reports concerning the impact of the activity and of alternative proposed activities **on the environment (environmental impact reports).**

Section 26 of ECA provides for the passing of regulations by the Minister of Environmental Affairs and Tourism (the Minister) regarding, inter alia, the scope and content of environmental impact reports, the drafting and evaluation of such report, and

the procedures to be followed by the developer in the course of or after the performance of the activity in question, in order to substantiate estimates made in the environmental impact reports.

Such regulations have been passed and are contained in Government Gazette Notice No. R 1183 dated 5 September 1997 (the EIA Regulations).

These regulations are law and exemption from any of their provisions is only possible if a written application with reasons is made to the Minister or a competent (as the case may be) in terms of the provisions of section 28A of ECA, for exemption from the application of any provision of any regulation promulgated in terms of ECA, and such exemption is granted by the Minister or competent authority. An exemption can be granted with or without conditions, as the Minister or the competent authority may deem fit.

Good cause will have to be shown as to why the application of the particular regulation/s is not appropriate in the circumstances.

3. AUTHORITY RESPONSIBLE FOR CONSIDERING AND ADJUDICATING ON THE APPLICATION

I understand that on 6 May 2003, the application for authorisation to construct the 400kV transmission line was submitted directly to DEAT National, and that copies of the application were provided to Gauteng DACEL and to DACE North West at this time.

I am satisfied that in terms of EIA Regulations, and more specifically regulations 4(3)(d) and (e), that DEAT National is vested with the authority and responsibility to receive, consider and adjudicate this application.

4. EVALUATION OF CERTAIN ASPECTS OF THE RECOMMENDED EIA PROCESS

I understand that copies of the Plan of Study for Scoping were handed to representatives of the offices of each of the three authorities referred to above at the same time that the application for authorisation to conduct the proposed activity was given to them i.e. also on 6 May 2003.

I have the following comments on certain aspects of the EIA proposals set out in the POS.

4.1 I understand that ESKOM is in the process of applying for exemption from having to consider alternatives as part of this EIA process, and that DEAT National has indicated that they would consider such an exemption.

If this is not forthcoming, then the POS should be expanded upon to provide for the consideration of alternatives as part of the scoping process.

4.2 I have reviewed the public consultation methodology proposed in the POS for the participation of directly affected landowners and interested and affected parties (I&AP's) in the scoping process of this study, and my comments on this follow.

The concept of integrated environmental management is firmly entrenched in our laws by virtue of the numerous provisions dealing with this in the National Environmental Management Act no. 107 of 1998 (NEMA). The purpose of integrated environmental management is informed decision – making by Government in all matters that may have an impact on our environment.

An Environmental Impact Assessment (EIA) is a tool of integrated environmental management and is primarily focused on the identification of impacts **of a proposed development on the environment, socio – economic conditions, and cultural**

heritage of the people and the properties to be affected by the proposed development. Once identified, an assessment can be made as to how these impacts can be measured, monitored, managed and mitigated. In other words, EIA's are fact –gathering exercises aimed at informed decision – making. **(See section 24(7) of NEMA for support of this).**

Participation by specialists, directly affected landowners and other I&AP's in the EIA process should be focused on and evaluated in this context. This should be made clear to participants at the outset of the public consultation process, in other words, the focus and purpose of their participation in this EIA process should be stated so as to avoid any misunderstanding on this issue from the outset.

My comments on the methodology proposed for the Public Consultation Process is based on the assumption that it is legally competent to limit this study to the identified study/ proposed servitude corridor only. In other words, that the study corridor/ servitude corridor identified in the POS is shown to be the most suitable and environmentally sound route along which the proposed 400kV transmission line is to be constructed, and that this is the only area that needs to be assessed for impacts for the purpose of this application.

Based on this assumption, I am of the view that the Public Consultation Process recommended in the POS appears to be robust. Subject to what I have set out below, I would think that a strong argument could be made that this would be sufficient to satisfy the requirements of NEMA and the EIA Regulations that there should be adequate and appropriate consultation with directly affected landowners (the landowners) and other I&AP's in the scoping process proposed for this application. This statement also presupposes that no significant issues are identified during the scoping process that would of necessity demand further specific investigation and consideration outside of the scoping phase of this EIA.

I would like to suggest that communication with the landowners be direct and personal, i.e via phone calls, faxes, and personal delivery/service of documents to the landowners at the physical address of their official offices, rather than by way of registered letters.

A responsible person who will accept service of such documentation on behalf of each landowner, and who will participate in this process for and on behalf of each landowner should be identified, and proof of service of documents on the landowners and receipt of such documents, should be obtained. Each landowner needs to be given all the information that it may require to participate meaningfully in the EIA process. They should be told exactly what is required of them and by when i.e. what the time frames are that will apply to their participation in the process.

Since the period within which landowners are required to give input into the study is limited to a maximum of 14 days, it is critical that all relevant information necessary to enable landowners to participate in the process, be given to and received by the landowners as soon as possible after the POS has been accepted by DEAT National, if not before. You will need to maximise the time to be given to landowners to consider your documents and to respond to your study process. The process of sending registered letters may prove to be unreliable and too time-consuming, with the onus being placed on the public consultation consultant to prove that the registered letters have in fact been received and when. This is often difficult and should be avoided. Direct channels of communication are preferred and are in my view critical to the success of this study.

I would like to suggest a similar level of communication with the key stakeholders.

In addition to this, I would also like to suggest that the processes identified for notifying and communicating with key stakeholders, the Vametco Mine (as the key adjacent landowner) and other I&AP's, be initiated immediately after the POS has been accepted by DEAT National, if not earlier.

Insofar as "other interested parties" is concerned, particular attention should be paid to the provisions of section 2(4)(f) of NEMA that require that participation by vulnerable and disadvantaged persons must be ensured. If the persons who will be affected by this proposed development include vulnerable and disadvantaged persons, appropriate provision should be made for such persons to participate directly in this process, alternatively that acceptable representatives for this category of person be identified and their participation in the process facilitated.

Finally, provided that you can show that there has been timely communication of data and information; that there are adequate channels for eliciting and encouraging responses and participation in the process; that there has been fair notice and practice, and transparency throughout the process; that all directly affected landowners have been contacted and communicated with directly and personally; that I&AP's (other than landowners) have been adequately identified and afforded a reasonable opportunity to participate in this process; and that there is fair and balanced representation of all I&AP's throughout the process, it should be possible to make out a strong argument in favour of compliance with NEMA and its requirements of adequate and appropriate participation by I&AP's in the scoping phase of this EIA process, despite the short time frame afforded to this in your study.

The 14 - day comment period provided for in the POS is exceptionally tight and there may well be objection to this. The time that will really count for evaluation will be the actual days that an I&AP is afforded to review all relevant documents and to access the information that such I&AP will require to be able to participate meaningfully in the process. This time must be maximized, will be determined on the facts of each case, and will be calculated to run only as from the date on which the particular I&AP actually becomes aware or should reasonably be expected to become aware (by whichever means) of ESKOM's application for authority to proceed with the proposed activity.

The longer the period of time that can be afforded to I&AP's to review documentation, to submit comments and participate in the process, the more likely it will be that I&AP's will have been given a reasonable opportunity to participate in the scoping process.

5. CONCLUSION

There seems to be a strong willingness between the parties who have thus far participated in the application process (e.g DEAT National, DACEL Gauteng, DACE North West, ESKOM and the specialists thus far appointed to the project), to act together in a spirit of mutual co-operation in facilitating as far as is possible, the achievement of the objectives set for this project, i.e placing DEAT National in a position, after completion of the scoping phase of this project, to make an informed decision on the facts presented and to issue a ROD for the proposed activity.

Taking the history and background of this proposed development into consideration and the fact that:

- **the proposed development is the subject of a previous EIA and a fairly recent ROD;**

- **most of the planning for the area concerned has been done on the basis that the authorities have previously agreed to the development and that it has been broadly accepted by the community and all I&AP's in the area that the development will at some stage take place – it being only a matter of when;**
- **it is considered that it is highly likely that the recommended route for this development will at the end of the scoping phase of this EIA, be proved to still be the most suitable and environmentally sound route for the proposed development;**
- **the process recommended in the POS should ensure the identification of the significant impacts on the environment, and adequate and appropriate participation by I&AP's in the identification of such impacts;**

I believe that if there is a commitment from all key stakeholders in this process to participate in the study process in a responsible and appropriate fashion, and in a manner which acknowledges the rights and obligations of all stakeholders in this process as contemplated in NEMA and ECA, it should be possible for DEAT National to issue the ROD.

Kind regards,

LISA HOPKINSON

APPENDIX F: ARCHAEOLOGY

SCOPING THE NATURE AND EXTENT OF POSSIBLE HERITAGE RESOURCES IN ESKOM'S PROPOSED NEW 400kV POWER LINE CORRIDOR BETWEEN THE ADIS SUBSTATION AND THE PHOEBUS (HANGKLIP) SUBSTATION IN THE NORTH-WEST AND GAUTENG PROVICES OF SOUTH AFRICA

BACKGROUND

Eskom intends establishing a new 400kV power line between the existing Hangklip (Phoebus) Substation near Soshanguve in the north-east and the proposed new Adis Substation near the Ucar Vanadium Mine in the west. The proposed new development project is situated in the Central Bankeveld, a swath of land stretching from the far North-West through the Gauteng and Mpumalanga Provinces of South Africa incorporating parts of the northerly bushveld, the Magalies Valley and the southerly Highveld.

Note on mapping: Key features identified in this report have been captured in the study maps given in the main body of the Scoping Report. Please refer to ***Maps 7.1 and 7.2*** *for more detail on the archaeological issues relevant to the study.*

The Central Bankeveld is covered by older grabbo penetrated by younger vulcanic magma that formed the series and chains of granite hills running from the Pilanesberg in the north-west to Onderstepoort near Pretoria in the east. These hills represent a unique ecozone characterised by grassveld, savanna veld and near wooded valleys. This region has abundant surface water supplies with the Pienaars, the Moretele, the Hex and the Apies Rivers all draining their waters into the Crocodile River system.

Interaction in the Central Bankeveld between the climate, geology, and the fauna and flora over millions of years established a milieu in which prehistoric and historic communities flourished, the most pronounced being the numerous Late Iron Age Tswana spheres of influence that emerged along the chain of granite hills between Pretoria and Onderstepoort from the 17th century onwards. These communities found a suitable living environment where they practised herding, agriculture, metalworking and trading. Here these settlements of these early Tswana chiefdoms are characterised by an impressive and elaborate stone-built tradition. Hundreds of stone walled settlements, some clustered in larger complexes, were built along the bases of the granite hills.

HISTORICAL CONTEXT OF THE STUDY AREA

The earliest human occupation of the Central Bankeveld was probably by Early Stone Age people such as Homo Erectus who manufactured hand axes and cleavers (500 000 years ago). Middle Stone Age sites are numerous over South Africa so that these people, who were already 'modern' in physical appearance, must have roamed the wider area in and around Eskom's study area (150 000 years ago). Later Stone Age San hunter-gathers established base camps in caves in the Magaliesberg while rock engravings and a limited number of rock paintings also exist close to the Magaliesberg and the Pilanesberg (dating back to 20 000 years ago). The first Bantu-Negroid herders and agriculturists in the Central Bankeveld lived close to Brits (Hartebeespoortdam) (AD 500 to 800) while extensive Late Iron Age Tswana domains emerged and flourished in the Central Bankeveld from the 17th century onwards.

The Swartkoppies mountain range close to Eskom's study area is also known as Mabjanamatshwana, one of two localities from where a diaspora of Sotho-Tswana clans took place centuries ago. The second centre was Rathateng, a settlement situated at the confluence of the Crocodile and Marico Rivers. Whilst Kwena clans dispersed from Rathateng to settle in the north-western parts of the Transvaal (Modimosana, Hurutshe, Phalane, Mogôpa), Kgatla clans spread from Mabjanamatshwana and settled in the Pilanesberg and in Botswana (Kgafela), near Warmbaths (Mosêtlha) on the Springbok flats and in Sekhukhuneland (Motša and Mmakau).

Numerous pre-*difaqane* and *difaqane* wars were fought during the last quarter of the 18th century and the first quarter of the 19th century. These wars led to the displacement of large numbers of Tswanas in the Central Bankeveld. Internal strife between various Tswana chiefdoms also seems to have been on the increase from the latter half of the 18th century onwards. Succession disputes led to the splintering of chiefdoms into a growing number of independent spheres of influence in the Central Bankeveld.

The *difaqane* wars caused by the Matabele (Ndebele) of Mzilikazi caused havoc in the Central Bankeveld during 1827 to 1832. The Matabele destroyed the Kwena Môgôpa, the Kgatla and what had remained of the Pô after their defeat by the Pedi. The Matabele established several settlement complexes in the Central Bankeveld from whence they maintained their grip on the indigenous population. At least two of these Zulu/Nguni residences (*imisi*) and military kraals (*amakhanda*) were located near Brits, one close to Eskom's study area. (Cornwallis Harris who hunted extensively in the Bankeveld painted this village in 1836).

During the early 19th century, travellers, traders and missionaries visited the Central Bankeveld, where they encountered the devastated Tswana chiefdoms. Some of them saw and recorded Mzilikazi's villages. Amongst the earliest travellers who moved through the Bankeveld in 1829 were the traders Robert Schoon and William McLuckie. The missionary Robert Moffat followed them two months later. In June 1835 Charles Bell and other members of Andrew Smith's expedition travelled through the Bankeveld only to be followed by Cornwallis Harris a year later.

The Bankeveld was rich in fauna, which attracted the Griqua and the first white hunters to the region. Ivory was plentiful, with herds of elephants roaming the area. Ivory and animal skins were sought after as precious trade commodities.

The first immigrant Boers established themselves to the north of the Magaliesberg in the late 1840's and established farms near Potchefstroom and Rustenburg. Some of the Voortrekkers also gradually occupied the fertile Crocodile River valley near Brits during the middle of the 19th century. The historical context of the larger study area also saw outstanding historical events such as the Anglo Boer War (1899 to 1902); the great depression and the building of the Hartebeestpoortdam and its canal system (1920's); the Nationalists policy of the removal and 'reorganisation' of black communities into homelands such as Bophuthatswana (1948 onwards), and the first democratic election and undoing of apartheid (1994) during the last hundred years. This more recent time period is also tied in with cultural values, traditions, places and people that may qualify as part of the 'national estate' as outlined by the National Heritage Resources Act (Act No 25 of 1999).

SCOPING THE HERITAGE POTENTIAL OF THE ESKOM STUDY AREA

Types and ranges of heritage resources in the Central Bankeveld

The National Heritage Resources Act (Act No 25 of 1999) lists a wide range of heritage resources that are considered to be part of the 'national estate'. The 'Historical context of the study area' (see above) indicated the nature and the extent of the rich cultural heritage that exists in the Central Bankeveld and therefore, possibly in the Eskom study area as well. These remains include those of the earliest hominids (ape-man creatures); Stone Age sites, rock painting and engraving sites associated with the San people; Early and Late Iron Age sites occupied by the first Bantu-Negroid farmers; historical remains associated with the first immigrant Boers; block houses and fortresses built by British troops during the Anglo Boer War; graveyards dating from historical and pre-historical times, and numerous other formal (modern) sites, townscapes, museums, monuments, statues, cemeteries, commemorative plaques, etc.

The Eskom study area

The Eskom study area in the Central Bankeveld is a narrow corridor (approximately 28km long and 130 meters wide) running from the east to the west across the farms Kruisfontein 262JQ, Sjambok Zyn Oude Kraal 258JR, Hoekfontein 432JR and Krokodilkraal 426JQ (1: 50 000; Brits 2527DB and 2528CA Pretoria) in the Central Bankeveld of the North-West Province and the province of Gauteng. According to a brief site visit, knowledge gained from surveys in the Central Bankeveld and from extended excavations of Late Iron Age sites near Brits in the past, the heritage potential of the proposed Adis Phoebus power line corridor can be scoped by dividing the power line corridor into the following parts:

Part AB (Map 7.2: Phoebus to (1))

Part AB runs from the Hangklip (Phoebus) Substation to the western boundary of Soshanguve South and Soshanguve SS and can be divided into a part that initially runs across open veld followed by a second part that runs between the two residential areas. The first stretch, after leaving/entering the Hangklip Substation initially runs across open veld with little development activities. No heritage resources of outstanding significance are expected to occur along this part of the proposed corridor, except perhaps scattered stone tools.

The second stretch of Part AB runs through an existing open space (corridor) between Soshanguve South and Soshanguve SS. The northern and southern boundaries of this stretch of the proposed power line corridor collate with residential areas on both sides. Although no single, isolated (abandoned) graves were observed in this corridor, or close to the perimeters of the corridor, such sensitive remains may exist. Dwellings older than sixty years most probably occur near the boundaries of the corridor.

Part BC (Map 7.2: Approximately (1) to (2))

Part BC runs across veld with no visible infrastructure. It crosses at least two tributaries of the Sand River before reaching a turning point. Part BC has partly been disturbed by agricultural activities in the past. Remains dating from the Stone Age, the Iron Age or the relatively recent past may exist along this stretch of the proposed new power line corridor. However, considering the destructive affect of agriculture and the fact that these activities were sustained over a period of time (according to topographical maps), heritage resources that may have existed may have been damaged (destroyed) by these activities. If small agricultural plots with (semi-permanent) homesteads were established in this area, abandoned graves may exist. (This remains are also referred to as remains dating from the relatively recent past).

Part CD (Map 7.2: Approximately (2) to (3))

Part CD runs along the northern boundary of Garankuwa and follows a stretch of land that has to a large extent been affected by various kinds of development activities in the past. Foothills of the Swartkoppies mountain range in the form of low granite knolls and outcrops occur in the eastern and western parts of Part CD. Part CD may be associated with isolated stone walls, mostly damaged, close to the granite outcrops. Scatters of potsherd have been observed along Part CD.

Part DE (Map 7.1: Approximately (3) to (12), and half way to (6))

Part DE runs on flat turf veld to the north of the Swartkoppies mountain range. This part of the corridor runs across old agricultural fields with scattered, inconspicuous granite knolls closer to the foot of the Swartkoppies mountain range. Part DE has also been scarred by older dirt roads while a new dirt road (used by the local granite mine) has been constructed in the more recent past.

Some of the granite knolls closer to the foot of the Swartkoppies mountain range are associated with small stone walled sites. Rudimentary stone wall foundations with little archaeological material (potsherds) were observed on level ground some distance from the foot of the Swartkoppies mountain range. These remains may date from an early part of the Late Iron Age (15th century or 16th century).

Part EF (remaining sections to Adis)

Part EF runs away from the Swartkoppies mountain range towards the north-west where it meets the Adis Substation on the farm Krokodilkraal 426JQ. This stretch of the proposed new power line initially runs across relatively undisturbed veld followed by agricultural fields. Low granite knolls occur to the south of the proposed Adis Substation. These granite outcrops are associated with Late Iron Age stone walled sites.

COMMENTARY

It is clear that the Central Bankeveld contains a wide range of heritage resources dating from the pre-historical past through the historical period into the relatively recent past. This continuum is the result of the fact that many of the people living close to Eskom's proposed new power line corridor are descendants of populations that have occupied the Central Bankeveld from the earliest times. The scoping exercise has indicated that a wide range of heritage resources occur close or in Eskom's proposed power line corridor, some of which may be affected by the building of the new 400kV power line namely: Stone Age and Iron Age sites; historical sites, and remains dating from the relatively recent past including sensitive remains such as unattended graves. These remains are not considered to be of outstanding significance.

Heritage resources of outstanding significance, such as the Late Iron Age complexes along the Swartkoppies range of mountains that are related to the Mabjanamatshwana origin centre of the Sotho-Tswana, occur at a considerable distance from Eskom's proposed power line corridor and will not be affected by the development.

RECOMMENDATIONS

The Adis Phoebus power line corridor has to be subjected to a thorough Phase I foot survey in order to document and to map all possible types of heritage resources in close proximity or in the power line corridor. Mitigation measures for the various types of heritage resources that may occur

within the boundaries of the proposed power line corridor and which may be affected by Eskom's proposed development project are set out in Table 1.

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Table 1: Note the mitigation measures to be followed whenever any of the following heritage resources and sensitive remains may be affected during the construction and operation of the power line between the Adis Substation and the Phoebus Substation in the North-West and Gauteng Provinces of South Africa.

HERITAGE RESOURCES	MITIGATION MEASURES	PROCEDURES	GENERAL REMARKS
Stone Age sites and scatterings of stone tools	• Collection from surface/ donate to a local museum • Test or extended excavations if unique • Keep *in situ* (under power line)	• Permit from SAHRA and collaboration with archaeologist	Stone tools may occur near or in the proposed new power line corridor.
Early Iron Age sites	• Surveys and test excavations • Extended excavations if unique • Keep *in situ* (under power line)	• Permit from SAHRA and collaboration with archaeologist	It is highly unlikely that there are Early Iron Age sites in the proposed new power line corridor
Late Iron Age sites	• Survey (map) and test excavations • Extended excavations if unique • Keep *in situ* (under power line)	• Permit from SAHRA and collaboration with archaeologist	Late Iron Age complexes of outstanding significance occur outside the power line corridor Isolated, small Late Iron Age sites may occur in or close to the new power line corridor Scatters of potsherds and damaged isolated walls occur in the new power line corridor.
Historical sites and structures (houses, farm homesteads, etc.)	• Documentation before destruction • Restoration and utilization • Incorporation into new development schemes	• Permit from SAHRA and collaboration with historical architect	Historical dwellings or homesteads may occur near the boundaries of the new power line corridor
Graves and graveyards	• Relocation of graves and graveyards • Keep *in situ* (under power line)	• Permits from SAHRA, national and provincial health departments. • Community consultation. • Collaboration with archaeologist	Unattended graves, hidden by vegetation, may occur in or near the new power line corridor Graveyards occur near the new power line corridor.

APPENDIX G: SOCIAL

ADIS-PHOEBUS 400kV TRANSMISSION LINE
SOCIAL IMPACT ASSESSMENT

1. GENERAL DESCRIPTION OF THE AREA

It is proposed that a new 400kV transmission line, approximately 26km in length, be constructed on a servitude registered in general terms. The area stretches from a sub-station currently called Hangklip in Soshanguve, which is part of the City of Tshwane in Gauteng, to Adis, a site approximately 8 km north-east of Brits in the North West Province. A 400kV capacity sub-station will have to be built at Adis to ensure effective transmission.

Note on mapping: Key features identified in this report have been captured in the study maps given in the main body of the Scoping Report. Please refer to ***Maps 5.1 and 5.2*** *for more detail on the social and socio-economic issues relevant to the study.*

2. TRANSMISSION LINE

2.1 North West Province

2.1.1 Local Municipality structure

The section of the servitude in North West Province falls within the jurisdiction of the Local Municipality of Madibeng (NW 372). It is understood that Madibeng Local Municipality owns the Adis site and supports the development.

This municipality covers an area of approximately 3 814 km². The Local Municipality consists of parts of the former Brits TLC, the former Hartebeespoort TLC, the former Skeerpoort TRC, and the former Eastern District Council[3].

2.1.2 Land use and socio-economic profile - Madibeng

The Madibeng Local Municipality area is characterised by a number of urban areas, although the population is mostly rural[4]. It includes approximately 43 villages and 9000 farm portions. The total population in this local municipality is estimated to be approximately 419 451 people, of which more than 90% is black[5]. The black population is particularly poor. Due to poverty, unemployment and migration, high percentages of rural populations are accommodated in informal houses/settlements [6]. It is anticipated that unemployment might become a major threat in the next 5-10 years, because of the high percentage of young people who will enter the employment market[7].

Migration patterns can be attributed to the dominant activities in the area. These are agricultural, mining and manufacturing. The economy is dominated by the mining industry, of which only granite benefits the local community. The average economic growth was about 6%

[3] Madibeng Integrated Development Plan
[4] The proportion of rural people in North West Province is 64.4%, the second highest proportion of rural population in South Africa
[5] Madibeng Integrated Development Plan
[6] The unemployment rate of the area is 37.7%
[7] Madibeng Local Municipality Integrated Economic Growth Strategy, 2003

during 1996-2000. A strong economic link exists especially with Rosslyn in Gauteng, through the Platinum Spatial Development Initiative[8].

The total available electricity supply to the Brits Eskom Region (an area much larger than the Brits Local Council Boundaries) is 570 MVA. The current demand within this distribution region is 477 MVA, which leave an approximate spare capacity of 93 MVA[9].

2.1.3 Land use and socio-economic profile – study area[10]

The area in the North West Province that will be directly affected by the transmission line or is in close vicinity to the line, is not densely populated (approximately less than 1 person per ha). Settlements in the area are Rankotia, Mothotlung and Mmakau. Mining activities take place at the Ukar Vanadium mine, and in the koppies, Bakgatla ba Mmakau, South of the servitude. Subsistence farming takes place along the servitude. The area up to the mine is tribal land.

Rankotia is approximately 1 km north-east of the proposed site for the substation. Rankotia is not mentioned in the Madibeng IDP/IDF. This seems to be an area with low economic development potential, but in high need of socio-economic and infrastructure provision. Young people most probably moved out of the area in search of employment, resulting in the general degradation of the settlement. The settlement might experience growth should the mining in the area pick up. Based on the maps in the IDP, general information about the area, and a site visit, the following population characteristics can be concluded:

- The area is relatively high in population density.
- Older people are in the majority.
- The population in this area is poor. It is estimated that the average household income is less than R1 500 p/m.
- Bucket- and/or pit latrines are used.
- Piped water and electricity are not available.
- Candles are most probably the main source of lighting and fuel.
- In line with the unemployment rate of the municipal area, one can assume that 40% and more of the population are unemployed. The majority of the employed sector of the community does not necessarily work in the mining sector.
- The educational level is low.
- Dwellings vary from 3 room dwellings on separate stands to informal dwellings.

Mothotlung is a urban area with a population of approximately 14 000[11], and is serviced directly by Eskom. The area is a formal residential settlement, with an informal residential area to its north, closer to the servitude. The following developments are proposed in the Spatial Development Framework:

- Develop Mothulung to a 2nd service delivery centre. It is proposed to add two clinics, a post office and a community centre, as well as approximately 4 more schools. Brits will be the business provider. To accommodate the proposed residential development, a total of 87ha is needed (approximately 1x1 km). A specific area for development will not be identified. Development will take place in and around the settlement where needed.

[8] Madibeng Integrated Development Plan
[9] Madibeng Local Municipality Integrated Economic Growth Strategy, 2003
[10] Madibeng Integrated Development Plan & Madibeng Integrated Development Framework, 2003. A final copy of the IDF was not yet available at the time of completion of this document. This information is based on an interview with Mr. D. Saayman of CityScope
[11] Estimated 2000 figures, based on 1996 census figures

- The tender process for Mothotlung Extension 1 has been finalised. The Province has given permission to proceed with the construction of houses even though the land is still not yet transferred. Of the 768 applications, 733 have been approved.

Mmakau is an important rural village, and its development is focussed along the primary development corridor from Brits through towards Ga-Rankuwa and Rosslyn. This core development region is to be the short and medium term focus for investment and infrastructure development programmes within the eastern development region. Makau is not a wealthy village, although certain sections in Mmakau have a monthly household income in excess of R5 000 per month. Informal settlements occur north of the formal residential area, linking informal settlements in Gauteng, closer to the servitude.

Proposed development of villages further north of the servitude, e.g. Kgabalatsane, will not take place in a southern direction towards the servitude.

2.1.4 Proposed roads

It is proposed that major arterial, NW6, be build about parallel to the servitude, to connect Brits with Ga Rankuwa. It is also envisioned that a freeway, the PWV6, pass through this area – east of Mothulung.

2.2 Gauteng[12]

2.2.1 Local Municipality structure

The Tshwane Metropolitan Municipality consists of the former Pretoria Town Council, Centurion Town Council, the Northern Pretoria Metropolitan Sub-Structure, Eastern District Council Area, Pienaars River TRC, Crocodile River TRC, and Northern Pretoria Metropolitan Sub-Structure. The study area is now under the jurisdiction of The City of Tswane, Region 1.

2.2.2 Land use and socio-economic profile - Tshwane

The Tshwane area is regarded as one of the cities most affected by apartheid and modernist planning. It is made up of low-density urban and rural sprawl, fragmentation, separation of land uses and income groups and structural imbalances. The city's settlement structure is regarded as one of the most inefficient and distorted in South Africa because so -called homelands (bantustan) were situated nearby. This provided circumstances where residential settlements could be located even further away from the city than before under pretence that development will be provided nearby. (Mabopane, Garankuwa, Winterveld, Temba.) The creation of homelands in general also brought about huge concentrations of impoverished rural people that are still in a process of urbanization. About 80% of dwelling units in Tshwane are formal.

Akasia is one of an inner ring of satellite nodes developed approximately 10 to 12,5 kilometres from the city centre. These centres have established their own catchment areas and related developments and facilities.

Soshanguve, Rosslyn and Garankuwa are part of a series of emerging and established urban cores - stretching north-ward away from the city center in a band from 25 km to 40 km, presenting difficulty in bringing about integration.

[12] Tshwane 2020 plan IDP 2002/2003, State of the Environment Report Pretoria, 2001

The Brits-Ga-Rankuwa-Rustenburg area is a manufacturing cluster, creating employment opportunities for residents in North West Province-Madibeng and Gauteng-Tshwane. This includes the food and beverages sector; non-metallic mineral products; fuel petroleum chemical and rubber products; metal products and machinery; and transport equipment.

A new wave of urbanisation into the Tshwane area is expected because huge state subsidised transport schemes for people living in far away rural areas to the north east of Tshwane into Mpumalanga are about to be terminated by the department of transport.

2.2.3 Land use and socio-economic profile – study area

The City of Tshwane has an estimated population of 2,2 million. The Soshanguve wards in total has a population of about 225 000, and Ga-Rankuwa's wards in total have an estimated population of about 45 000.

The area is densely populated and planned future development will increase density even more. This area has higher percentages of children. In light of this, unemployment might become a major threat in the next 5-10 years. The unemployment rate for Tshwane is 26%. It is assumed that not more than 74% of the population in the study area is economically active. Employment opportunities are few in this area. Most jobs are in the central/south-eastern parts of the Metropolitan Area. The areas affected by the transmission line, is thus one of the poorer areas in Tshwane.

The residential areas alongside the servitude are mainly formal. The Ga-Rankuwa area seems to have a higher incidence of electricity and flush toilets compared to Soshanguve[13].

The Ga-Rankuwa area is identified as an area that requires special strategies aimed at attracting development. Low cost housing is planned for most of the open spaces in the residential areas. The Soshanguve area is an urban core, Klip Kruisfontein, and low cost housing is planned for most of the open spaces in the residential areas.

The planned developments for Soshanguve/Ga-Rankuwa takes into account the servitude. Based on Eskom's feedback on the "dorpstigting verwysing", this area was never considered for development. Squatters currently illegally occupying land in the servitude, were planned to be moved to the new settlements.

Subsistence farming does occur, in some instances, in the servitude.

4. REFERENCES

Madibeng Integrated Development plan – *the report on CD does not have a date, and the contact person at Madibeng was unavailable today, Friday.*

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Madibeng Draft Spatial Development Framework, 2003.
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[13] Based on field trip and data in the IDP

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APPENDIX H: AVIFAUNA

Bird Impact Scoping Study

400kV Transmission line
Adis-Phoebus
North-West/Gauteng Province

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EXECUTIVE SUMMARY

The proposed line is likely to pose a minimal risk to birds in the surrounding area. The reasons for that are that high levels of habitat destruction and human activity has transformed the area extensively. This has resulted in most powerline sensitive species becoming very rare along the alignment, minimizing the risk of interaction. The design of the proposed powerline precludes the possibility of streamer induced faulting.

1 Introduction

1.1 Description of typical impacts of transmission (>220kV) on birds

Because of their size and prominence, electrical infrastructures constitute an important interface between wildlife and man. Negative interactions between wildlife and electricity structures take many forms, but two common problems in southern Africa are electrocution of birds and other animals and birds colliding with powerlines. (Ledger & Annegarn 1981; Ledger 1983; Ledger 1984; Hobbs & Ledger 1986a; Hobbs & Ledger 1986b; Ledger *et.al..* 1992; Verdoorn 1996; Kruger & Van Rooyen 1998; Van Rooyen 1998; Kruger 1999; Van Rooyen 1999; Van Rooyen 2000). Other problems are electrical faults caused by bird excreta when roosting or breeding (Van Rooyen *et.al* 2002) on electricity infrastructure, and disturbance and habitat destruction during construction and maintenance activities.

The terms of reference for this study stipulated that the potential impacts of the powerline on birds should be investigated therefore attention will be focused on that aspect. Where/if applicable, reference will be made to the expected impacts of the birds on the proposed powerline.

- Electrocutions

Large birds of prey are the most commonly electrocuted on powerlines. The large transmission lines (>220kV) are usually not a threat to large birds, because the towers are designed in such a manner that the birds do not perch in close proximity the potentially lethal conductors. In fact, these powerlines have proved to be beneficial to birds such as Martial Eagles, Tawny Eagles, African Whitebacked Vultures, and even occasionally Black Eagles by providing safe nesting and roosting sites in areas where suitable natural alternatives are scarce (pers.obs.). Cape Vultures and African Whitebacked Vultures have also taken to roosting on powerlines in certain areas in large numbers, while Lappetfaced Vultures are also using powerlines as roosts, especially in areas where large trees are scarce (pers.obs.).

- Collisions

Up to 1996, it was generally believed that powerline collisions are not a major problem in Southern Africa, with the exception of the three crane species and flamingos. This may have been the case because collisions with powerlines are seldom recorded through internal systems, as it seldom impacts on the electricity supply. However, a disturbing new picture has since started to emerge, pointing to collisions as a major cause of unnatural mortality for several threatened birds (van Rooyen 1999). Most heavily impacted upon are bustards, storks, cranes and various species of waterbirds. These species are mostly heavy-bodied birds with limited maneuverability, which make it very difficult for them to take the necessary evasive action to avoid colliding with powerlines.

- Habitat destruction and disturbance

During the construction phase and maintenance of powerlines, some habitat destruction and alteration inevitably takes place. This happens with the construction of access roads, and the clearing of servitudes. Servitudes have to be cleared of excess vegetation at regular intervals in order to allow access to the line for maintenance, to prevent vegetation from intruding into the legally prescribed clearance gap between the ground and the conductors and to minimize the risk of fire under the line which can result in electrical flashovers.

These activities have an impact on birds breeding, foraging and roosting in or in close proximity of the servitude, both through modification of habitat and disturbance caused by human activity.

2 Background to current study

2.1 Particulars of study area

The study area forms part of the savannah biome. It is characterized by a grassy ground layer and a distinct upper layer of woody plants (Low & Rebelo 1996). Where this upper layer is near the ground the vegetation may be referred to as shrubveld, which best describes it in the study

area, probably due to overgrazing. The shrub-tree in the study area typically varies from 3 to 5 m. The shrub-tree element may come to dominate the vegetation in areas which are being overgrazed.

Broadly speaking the vegetation type along the alignment can be described as Mixed Bushveld (Low & Rebelo 1996). In the study area, this consists of open savanna in various stages of degradation. Small areas along the Swartkoppies range are relatively intact, albeit heavily grazed. In other areas, the original vegetation has been cleared for urban development. Intensive quarrying has also impacted on the vegetation (see appendix A and B).

2.2 Proposed powerline, including structure types

The total length of the proposed line is about 26km. The preferred structure type for the line is the cross-rope suspension structure. This structure has no inherent electrocution risk for birds due to the large clearances. The structure does have earthwires running at the top which create a potential collision risk to birds.

2.3 Predictive methods

- 1:50 000 maps of the study area were provided showing existing powerlines, roads, railways , dams, urban areas and the land cover. These were used in order to identify potential "hot-spots" along the corridors e.g. patches of undisturbed vegetation, river crossings, wetlands and dams and agricultural areas.
- Atlas of southern African Birds (ASAB) (Harrison *et.al.* 1997) species lists of each of the quarter degree squares (or 1: 50 000 map units), 2527DB, 2528CA, within which the corridors are located were obtained from the Avian Demography Unit at University of Cape Town.
- The area was visited for a day to obtain a first-hand perspective of the proposed routes and birdlife. An attempt was made to travel all the alternative corridors as far as was practically possible, and to visit all potential hot-spots identified from the 1:50 000 maps.
- The impacts were predicted on the basis of six years of experience in gathering and analysing data on wildlife impacts with powerlines throughout southern Africa (see van Rooyen & Ledger 1999 for an overview of methodology), supplemented with local knowledge and first hand data. Extensive use was made of personal experience of the bird life in the study area, with which the author is intimately familiar with.

2.4 Uncertainties in predicting results

- The ASAB data covers the period 1986-1997. Bird distribution patterns fluctuate continuously according to availability of food and nesting substrate.
- Sources of error in the ASAB database.
  Inadequate coverage of some areas
  Errors in species identification during data capturing stage
  Biases in the reporting process due to several factors
  (For a full discussion of potential inaccuracies in ASAB data, see Harrison *et. al.* 1997).
- Access to some of the corridors, especially the Northern Corridor, was limited as few access roads were available to inspect the area. In this instance, a general impression of the habitat was formed from whatever vantage points were available, supplemented with information from the 1:50 000 maps.

2.5 Gaps in baseline data

- Little long term, verified data of species distribution on **microhabitat** level along the proposed powerline routes.
- Little long term, verified data on impacts of existing lines in the study area on birds.

3 Criteria against which expected impacts are evaluated

Nature	Description of impact
Potential risk created by proposed structure type	Very high, high, low, very low
Probability	• Improbable, where the possibility of the impact to materialise is very low • Probable, where there is a distinct possibility that the impact will occur • Highly probable, where it is most likely that the impact will occur • Definite, where the impact will definitely occur
Expected locality	Description of localities where impact is expected to occur
Frequency	Very high, high, low, very low
Timing	Time of day/year
Duration	• Short term (0-5 years) • Medium term (5-15 years) • Long term (for the life-time of the infrastructure)
Permanence	Permanent, semi-reversible or reversible
Significance	• Low, where it will not have an impact on the decision • Medium, where it should have an impact on the decision unless mitigated • High, where it will influence the decision regardless of possible mitigation

(Adapted from Guideline Document, EIA Regulations, Implementation of sections 21, 22 and 26 of the Environment Conservation Act, April 1998, DEAT)

4 Evaluation of expected impacts

Generally speaking, it is unavoidable that birds get killed through interaction with infrastructure, including powerlines, despite the best possible mitigation measures. It is therefore important to direct risk assessments and mitigation efforts towards species that have a high biological significance, in order to achieve maximum results with the available resources at hand. However, a pure scientific approach would only consider the effects of deaths on the sustainability of the population, but society places other values on certain species, e.g. aesthetic or commercial, which can not be accounted for in a pure scientific approach, but can not be ignored either. In accordance with this principle, the risk assessment is primarily aimed at assessing the potential threat to Red Data species (see appendix C), but in addition, more common large species that are vulnerable to powerlines, that occur or potentially occur along the proposed powerline corridors, was also considered in the study, although in less detail.

4.1 Disturbance during construction phase and habitat loss due to powerline

These impacts are likely to be minimal and of limited duration. The habitat loss will be restricted to the footprint of the towers and the loss of a few larger trees that will have to be cleared in the servitude. Most of the lower storey vegetation should grow back in time. Birds breeding and foraging in the servitude should have no problem relocating temporary (or permanently), as habitat is available outside the servitude. The most likely area for this impact to occur is in the open savanna thornveld adjoining the Swartkoppies range.

4.2 Collisions with the proposed line

This impact could potentially occur, but the overall risk is very small. The area is heavily populated and the areas of natural habitat are fragmented and small. The Red Data species most likely to be affected is the Secretarybird, but the frequency is likely to be very low. Cape Vultures could potentially feed along the line, but the level of disturbance makes it unlikely. As far as non-Red Data species are concerned, there are several powerline sensitive species that have been recorded in the study area. Those that could potentially occur in the habitat along the line are large raptors such as Black Eagle (Swartkoppies range), and White and Abdim's Stork (open savanna and old lands). However, for the same reasons (disturbance and habitat destruction), they re not likely to be encountered in significant numbers, therefore interactions with the line are likely to the exception. Several powerline sensitive waterbird species have been recorded in the greater study area, but the habitat along the alignment is not suitable (lack of significant waterbodies).

5 Other impacts

Electrical faults on transmission lines are an important source of power disturbances. These faults have a variety of causes, including fires, lightning, insulator pollution, animal electrocutions, and equipment failure. An important faulting mechanism that has hitherto been largely overlooked, are bird streamers. The bird streamer flashover theory is based on the assumption that long streams of excrement released by large birds, either perched or in flight near a transmission line tower, can cause a flashover. A streamer that bridges the entire distance, or sufficient part thereof, between the earth plane (the steel tower and the bird perched on it above the insulator) and the nearest live hardware point, acts as a fuse and a transient earth fault occurs (Van Rooyen & Vosloo 2002).

The design of the cross-rope suspension tower makes it highly unlikely that large birds perching on the towers will be a potential source of faulting, as it is very unlikely that they will perch above the live hardware. The most likely perching spots are the earth peaks.

6 Conclusions

6.1 Impacts of the line on birds

The proposed line is likely to pose a minimal risk to birds in the surrounding area. The reasons for that are that high levels of habitat destruction and human activity has transformed the area extensively. This has resulted in most powerline sensitive species becoming very rare along the alignment, minimizing the risk of interaction.

6.2 Impacts of the birds on the line

The design of the proposed powerline precludes the possibility of streamer induced faulting.

7 Impact management plan

No impact management for birds are proposed due to the low likelihood of impacts occurring (see appendix D)

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Figure 1: Mixed Bushveld along the route with Swartkoppies range in the background

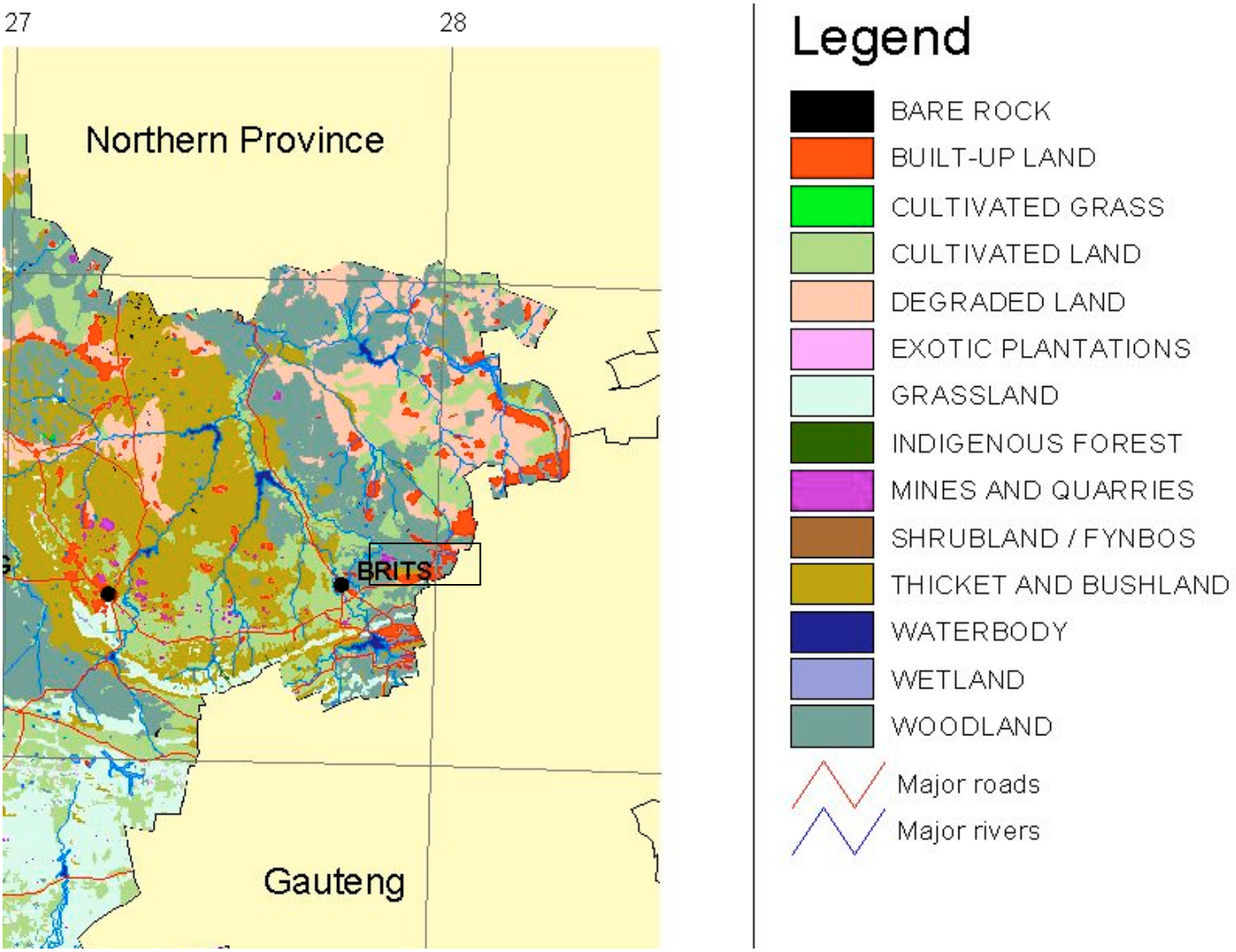
Figure 2: Granite quarries in the study area

Figure 3: Urban development along the alignment

Figure 4: Urban development near Phoebus

Appendix B Land cover in study area

Source: Department of Environmental Affairs & Tourism, University of Pretoria, GIS Business Solutions



Potential impacts on Red Data species recorded in 2527DB, 2528CA

Species	Conservation status (Barnes 2000)	Nature of impact	General susceptibility to expected impacts	Probability	Expected locality	Frequency	Timing	Duration	Permanence	Extent	Magnitude
Pinkbacked Pelican	Vulnerable	• Collision	High	Improbable	There are no suitable large waterbodies along the alignment						
Black Stork	Near-threatened	• Collision	Unknown. Its close relative, the White Stork is highly susceptible to collisions and electrocutions	Improbable	The species breed in the Magaliesberg at Roberts Farm east of Olifantsnek. It occurs sparsely throughout the study area. Frequent cliffs to roost and breed, rivers and wetlands to feed. Could potentially be encountered along the Swartkoppies range, but the disturbance (quarries) rule it out						
Marabou Stork	Near-threatened	• **Collision**	Unknown, but probably high due to physical size and behaviour.	Improbable	Vagrant to the area, occur sporadically						

Yellowbilled Stork	Near-threatened	• Collision	High	Improbable	There are no suitable large waterbodies along the alignment						
Greater Flamingo	Near-threatened	• Collision	High	Improbable	There are no suitable large waterbodies along the alignment						
Lesser Flamingo	Near-threatened	• Collision	High	Improbable	There are no suitable large waterbodies along the alignment						
Secretarybird	Near-threatened	• Collision	High	Probable. It is a fairly common breeding resident and vulnerable to collisions. Most at risk when flushed.	Most likely to be encountered in open savanna, particularly adjacent to the Swartkoppies range	Very low. The birds generally occur single or in pairs. Wanders widely outside the breeding season.	Any season	Collisions long term	Collisions permanent, although resident birds may with time learn to avoid the line.	Local	**Low**
Cape Griffon	Vulnerable	• Collision with powerline when feeding in the vicinity of powerlines	Medium	Probable. The species has a high reporting rate due to several breeding colonies in the Magaliesberg. There used to be a vulture restaurant at De Wildt, just south of the alignment.	This species roost regularly on powerlines in the vicinity of Sun City. Could be encountered anywhere away from human settlements, feeding on livestock carcasses.	Very low. The area has a high disturbance factor due to dense human settlement.	Any season	Long term	Permanent	Regional	**Low**

African Whitebacked Vulture	Vulnerable	Collision with powerline when feeding in the vicinity of powerlines	Medium	Improbable. The species is a vagrant to the area							
Tawny Eagle	Vulnerable	• Collision	Medium	Improbable due to low numbers	Tawny Eagles are extremely rare outside large game reserves.						
Martial Eagle	Vulnerable	• Collision	Medium	Improbable due to low numbers.	Martial Eagles could occur anywhere away from human settlements.						
Ayres's Eagle		• Collision	Medium	Improbable. The species is a vagrant to the area							
Lanner Falcon	Vulnerable	• Collision	Low. Normally nimble enough to avoid powerlines.	Improbable							
Lesser Kestrel	Vulnerable	• Collision	Very low. Bird is small and agile.	Improbable	Vagrant to the area. Will benefit from powerlines as it uses it to perch on.						
African Marsh Harrier	Vulnerable	• Collision	Very low	Improbable	Vagrant to the area						
Blue Crane	Vulnerable	• Collision	High	Improbable.	Vagrant to area.						
Grass Owl	Vulnerable	• Collision	?	Improbable.	Vagrant to area. Requires tall, undisturbed rank grassland.						
Halfcollared Kingfisher	**Vulnerable**	• **None**									

APPENDIX I: EMP ADIS-PHOEBUS 400kV

TRANSMISSION SERVICES

ENVIRONMENTAL MANAGEMENT PROGRAMME

EMP

Adis-Phoebus 400kV

J Geeringh
Senior Environmental Advisor
Tx Eng Capital Programme

CONTENTS

1. SCOPE

The scope of this document is to give guidelines, to the Contractor constructing the transmission line, regarding the environment. This document shall be seen as part of the contract and supplementary to Eskom's TRMSCAAC1 REV 3. **The management programme must thus be part of the enquiry document to make the recommendations and constraints, as set out in this document, enforceable under the general conditions of contract.**

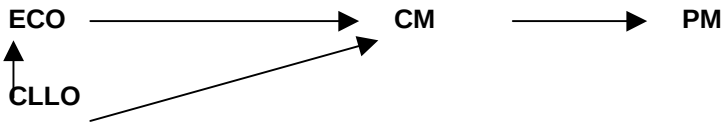
The management programme has a long-term objective to ensure that:

1) Environmental Management considerations are implemented from the start of the project,
2) Precautions against damage and claims arising from damage are taken timeously, and
3) The completion date of the contract is not delayed due to problems with Landowners arising during the course of construction.

Eskom would like a commitment from the Eskom Project Manager and Contractor on the following issues:

1. Take into consideration the Landowners as the line traverses private property.
2. Always behave professionally on and off site.
3. Ensure quality in all work done, technical and environmental.
4. Resolve problems and claims arising from damage immediately to ensure a smooth flow of operations.
5. To underwrite Eskom's Environmental Policy at all times.
6. To use this Environmental Management Programme for the benefit of all involved.
7. To preserve the natural environment by limiting destructive actions on site.

1.1. Reporting Structure.



ECO:- Environmental Control Officer (Can be the Eskom Site Supervisor)
C:- Contractor
CM:- Contract Manager (Eskom)
CLLO:- Contractor Landowner Liaison Officer (Dedicated person)
PM:- Project Manager (Eskom)

1.2. Responsibility Matrix.

Function	Name / Cell Nu	Responsibility
Project Manager (PM) Eskom		Overall management of project and EMP implementation
Site Supervisor/ Contract Manager (CM) Eskom		Oversees site works, liaison with Contractor, PM and ECO
Environmental Control Officer (ECO) Eskom		Implementation of EMP and liaison between Eskom, Contractor and Landowners
Contractor (C)		Implementation and compliance with recommendations and conditions of the EMP, Appoints dedicated person (CLLO) to work with ECO
Contractor Landowner Liaison Officer (CLLO)		Implementation of EMP, landowner interaction, environmental control of site actions, re-mediation and rehabilitation work.
Tx Engineering Environmental Advisor (Eskom)		Environmental advice and auditing

(Table to be completed upon Contract award)

2. INTRODUCTION

The construction of transmission lines can have a major impact on the environment. It is thus imperative that better precautions be taken to ensure that environmental damage is minimised. This will take a concerted effort from the Contractor and proper planning is of the utmost importance. The Environmental Control Officer shall make contact with the local Extension Officer of the Dept. of Agriculture, as this person has valuable information about the area and the local farming community.

(Information regarding the line and special conditions in general).

The Environmental Control Officer shall convey the contents of this document to the Contractor site staff and discuss the contents in detail with the Project Manager and Contractor.

The Contractor (TRMSCAAC1 REV 3 section 4.1.2) shall take all the necessary precautions against damage.

Good relations with Landowners need to be established and sustained. This will help in the solving of problems and the prevention thereof. Lines of communication should always be open to ensure proper and timeous reaction to complaints. The contact numbers of the ECO and Contractor shall be made available to Landowners. The reputation of both the Contractor and Eskom is at stake and should be the drive for everybody involved to perform in excellence.

All Environmentally sensitive areas are indicated on the profiles and the Project Manager and Contractor shall take note of these.

During the construction period at least two (2) Environmental Audits shall be conducted to determine compliance with the recommendations of the EIA, EMP and conditions of the Record of Decision (ROD). These can be internal or external by DEAT or combined audits.

3. TECHNICAL SPECIFICATIONS OF THE LINE

3.1. LENGTH:

The length of the line will be approximately _____km.

3.2. SERVITUDE WIDTH:

The building restriction is _____m. Construction is limited to the _____m servitude in which the line will be constructed. A 6m strip shall be cleared flush with the ground to facilitate access and construction, except where tower erection and stringing requires more space. Any extra space outside the servitude shall be negotiated with the relevant Landowner and approved by Eskom. All areas marked as no go areas inside the servitude shall be treated with the utmost care and responsibility.

3.3. TOWER PARAMETERS:

3.3.1. Tower spacing : _____m. (Average)

3.3.2. Tower height : _____m. (Average)
3.3.3. Conductor attachment height : _____m. Average)
3.3.4. Conductor type ` : _____.
3.3.4. Minimum ground clearance : _____m.

3.4. TOWER DESIGN:

The following types of towers may be used on this project:

- Cross rope suspension tower.
- Compact cross rope suspension tower.
- Guyed-V suspension tower.
- Self-supporting suspension tower.
- Self-supporting strain tower.

3.5. MAJOR ACTIVITIES OF THE PROJECT

The project involves 18 major activities of which 4 are completed. These are:
1. Environmental Impact Study – Copy of ROD appended to this document.
2. Negotiations for the servitude –Landowners list and details appended.
3. Land survey to determine exact placement of the line towers.
4. Drawing work to produce the profiles for construction – profiles included.

The following activities are still to be performed and will take approximately 6 months to complete:
1. Erection of camp sites for the Contractors' workforce.
2. Negotiations for access roads to the servitude.
3. Servitude gate installation to facilitate access to the servitude.
4. Bush clearing to facilitate access, construction and the safe operation of the line.
5. Establishing of access roads on the servitude.
6. Transportation of equipment, materials and personnel.
7. Installation of foundations for the towers.
8. Tower assembly and erection.
9. Conductor stringing and regulation.
10. Final inspection of the line and hand over to region for operation.
11. Rehabilitation of disturbed areas.
12. Signing off Landowners.
13. Handing and taking over of the servitude.
14. Operation and maintenance of the line.

The final inspection for the release of the Contractors' guarantee takes place one year after completion of the project. The line will be in operation immediately after completion of the project and will stay operational for the lifetime of the plant. Subsequent maintenance and refurbishment can extend the operational lifetime of the plant substantially.

3.6. PROJECT EXECUTION AREA

Construction activities are limited to the area as demarcated by Eskom and shown on the site plans. Any area outside Eskom owned property, required to facilitate access, construction

camps or material storage areas, shall be negotiated with the Landowner and written agreements shall be obtained.

Should water be required from sources other than Eskom supply, a written agreement shall be reached between the Contractor and the Landowner in the presence of Eskom. Should the Contractor be required to use water from a natural source, **the Contractor shall supply a method statement to that effect**. Strict control shall be maintained and the ECO shall regularly inspect the abstraction point and methods used.

No work shall commence until permission is granted from the Environmental Advisor from Transmission Engineering and the ROD from DEAT has been obtained. The Project Manager shall ensure that all conditions in the ROD are fulfilled before the Contractor occupies the site.

3.7. SITE ESTABLISHMENT

Site establishment shall take place in an orderly manner and all amenities shall be installed at Camp sites before the main workforce move onto site. **A method statement is required from the Contractor at tender stage that includes the layout of the camp, management of ablution facilities and wastewater management**. The Contractor camp shall have the necessary ablution facilities with chemical toilets where such facilities are not available at commencement of construction. The Contractor shall supply a wastewater management system that will comply with legal requirements and be acceptable to Eskom.

Where Eskom facilities are available the Contractor shall make use of such facilities where it is viable and possible. The Contractor shall inform all site staff to the use of supplied ablution facilities and under no circumstances shall indiscriminate excretion and urinating be allowed other than in supplied facilities.

The Contractor shall supply waste collection bins where such is not available and all solid waste collected shall be disposed of at a registered waste dump. A certificate of disposal shall be obtained by the Contractor and kept on file. Where a registered waste site is not available close to the construction site, **the Contractor shall provide a method statement with regard to waste management. Under no circumstances may solid waste be burned on site unless a suitable incinerator is available.**

3.8. WORKSHOP AND EQUIPMENT STORAGE AREAS

Where possible and practical all maintenance of vehicles and equipment shall take place in the workshop area. During servicing of vehicles or equipment, a suitable drip tray shall be used to prevent spills onto the soil, especially where emergency repairs are effected outside the workshop area. Leaking equipment shall be repaired immediately or be removed from site to facilitate repair. All potentially hazardous and non-degradable waste shall be collected and removed to a registered waste site.

Workshop areas shall be monitored for oil and fuel spills and such spills shall be cleaned and re-mediated to the satisfaction of the ECO. **To this end a method statement is required from the Contractor, tendering for the project, to show procedures for dealing with possible emergencies that can occur, such as fire and accidental leaks and spillage**. The Contractor shall be in possession of an emergency spill kit that must be complete and available at all times on site.

The following shall apply:

- All contaminated soil / yard stone shall be removed and be placed in containers. Contaminated material can be taken to one central point where bio-remediation can be done.
- Smaller spills can be treated on site.
- A specialist Contractor shall be used for the bio-remediation of contaminated soil where the required remediation material and expertise is not available on site.
- All spills of hazardous substances must be reported to the ECO and appointed Transmission Engineering Environmental Advisor **(Tx Key Performance Indicator requirement)**.

3.9. STORAGE AREAS OF HAZARDOUS SUBSTANCES

All hazardous substances shall be stored in suitable containers and storage areas shall be bunded. This includes all carbon substances like fuel and oil as well as herbicides and battery acid. A register shall be kept on all substances and be available for inspection at all times. Areas shall be monitored for spills and any spills shall be contained, cleaned and rehabilitated immediately. Any leaking containers shall be repaired or removed from site (See above for actions after spills).

Storage areas shall display the required safety signs depicting “No smoking”, “No naked lights” and “Danger”. Containers shall be clearly marked to indicate contents as well as safety requirements. **The contractor shall supply a method statement for the storage of hazardous materials at tender stage.**

4. PHYSICAL ISSUES AND THEIR CONTROL

4.1. TERRAIN

(Description of terrain, major land use activities, soil types, etc.)

(Any special terrain issues to be considered for timing of the project, like turf in the rainy season, access problems, etc.)

4.1.1. Management objectives

- Minimise scarring of the soil surface and land features
- Minimise disturbance and loss of topsoil
- Rehabilitate all disturbed areas along the servitude

4.1.2. Measurable targets

- No visible erosion scars once construction is completed
- Minimum loss of topsoil at any one site
- No barren areas visible three months after construction is completed
- All damaged areas successfully rehabilitated

4.2. WET AREAS

Permanently wet areas are shown on the profiles. No vehicular traffic shall be allowed in such areas. Only existing roads through such areas may be used with the approval of Eskom and

the Landowner. No equipment shall be used which may cause irreparable damage to wet areas. The contractor shall use alternative methods of construction in such areas. **Refer to TRMSCAAC1 REV 3 section 4.4.1 regarding access through seasonally wet areas.**

(Specifics about the project)

4.2.1. Management objectives

- Avoid wet areas to prevent damage

4.2.2. Measurable targets

- No damage to wet areas

4.3. RIVER CROSSINGS

No roads shall be cut through river- and stream banks as this may lead to erosion causing siltation of streams and downstream dams. Existing drifts and bridges may be used if the Landowner gives his consent. Such structures shall then be thoroughly examined for strength and durability before they are used. New drifts and bridges shall only be constructed with the approval of Eskom and the Landowner and at the discretion of the Environmental Control Officer. Refer to TRMSCAAC1 REV 3 section 4.4.1 regarding access across running water.

(Special description of any specific problems or areas along the route).

4.3.1. Management objectives

- Minimise damage to river and stream embankments
- Minimise erosion of embankments and subsequent siltation of rivers and streams

4.3.2. Measurable targets

- No access roads through river and stream banks
- No visible erosion scars on embankments once construction is completed

4.4. EROSION AND DONGA CROSSINGS

Crossing of dongas and eroded areas shall be thoroughly planned and accordance with TRMSCAAC1 REV 3 section 4.4.1. Water diversion berms shall be installed at donga crossings to ensure runoff water on the servitude does not run into dongas and cause an erosion hazard.

(Specifics about the project)

4.4.1. Management objectives

- Minimise erosion damage on donga crossings
- Minimise impeding the natural flow of water
- Minimise initiation of erosion through donga embankments

4.4.2. Measurable targets

- No disturbance to donga embankments
- No erosion visible on donga embankments due to construction activities
- No interference with the natural flow of water

4.5. ACCESS ROADS

Planning of access routes must be done in conjunction between the Contractor, Eskom and the Landowner. All agreements reached should be documented and no verbal agreements should be made. The normal Eskom site documentation will be sufficient for this purpose. The Contractor shall properly mark all access roads. Markers shall show the direction of travel as well as tower numbers to which the road leads. Roads not to be used shall be marked with a " **NO ENTRY** " sign (refer also TRMSCAAC1 REV 3).

Where new access roads are constructed, this must be done in accordance with TRMSCAAC1 REV 3 section4.4. Water diversion berms shall be installed from the start of the contract in accordance with TRMSCAAC1 REV 3 section 4.6. These berms shall be maintained at all times and be repaired at the end of the contract. Where berms are installed on severe slopes the outflow shall be suitably stone pitched to prevent erosion from starting at the berms.

No roads shall be constructed on slopes of more than 20% unless such roads follow contours. In such areas the Contractor shall only use existing roads or alternative methods of construction. The Contractor shall take such areas into consideration during the tender.

The installation of concrete pipes and drifts, to facilitate access, shall be at the discretion of the Environmental Control Officer on site. Any dangerous crossings shall be marked as such and where necessary, speed limits shall be enforced.

Where necessary a suitable mixture of grass seed shall be used to re-seed damaged areas. Badly damaged areas shall be fenced in to enhance rehabilitation. The seed mixture should comply with the parameters as set out in section 4.12 of this document.

(Any specifics about the project).

4.5.1. Management objectives

- Minimise damage to existing access roads
- Minimise damage to environment due to construction of new access roads
- Minimise loss of topsoil and enhancement of erosion

4.5.2. Measurable targets

- No claims from Landowners due to damage on existing access roads
- No erosion visible on access roads three months after completion of construction
- No loss of topsoil due to runoff water on access roads

4.6. RUBBLE AND REFUSE DISPOSAL

The Contractor shall dispose of all excess material on site in an appropriate manner and at a designated place. All packaging material shall be removed from site and disposed of and not burned on site. A landfill may be used for biodegradable materials but when it is closed up, the rubble shall be compacted and there shall be at least 1m of soil covering the waste material. No landfill may be used without the consent from the Landowner. No hazardous material, e.g. oil or diesel fuel shall be disposed of in any unregistered waste site. **(Refer also 3.7)**

No material shall be left on site that may harm man or animals. Any broken insulators shall be removed and all shards picked up. Broken, damaged and unused nuts, bolts and washers shall be picked up and removed from site. Surplus concrete may not be dumped indiscriminately on site, but shall be disposed of in designated areas as agreed by the Landowner. Concrete trucks shall not be washed on site after depositing concrete into foundations. Any spilled concrete shall be cleaned up immediately.

4.6.1. Management objectives

- To keep the servitude neat and clean
- Disposal of rubble and refuse in an appropriate manner
- Minimise litigation
- Minimise Landowner complaints

4.6.2. Measurable targets

- No rubble or refuse lying around on site
- No incidents of litigation
- No complaints from Landowners
- No visible concrete spillage on the servitude

4.7. VEGETATION CLEARING

The object of vegetation clearing is to trim, cut or clear the minimum number of trees and vegetation necessary for the safe mechanical construction and electrical operation of the transmission line. Vegetation clearing shall be done in accordance with ESKASABG3 REV 0 (Standard for bush clearance and maintenance within overhead power line servitudes – Appendix 5). **Only a 8m strip may be cleared flush with the ground to allow vehicular passage.**

No scalping shall be allowed on any part of the servitude road unless absolutely necessary. The removal of all economically valuable trees or vegetation shall be negotiated with the Landowner before such vegetation is removed. All trees and vegetation cleared from the site shall be cut into manageable lengths and neatly stacked at regular intervals along the line. No vegetation shall be pushed into heaps or left lying all over the veld.

Vegetation clearing on tower sites must be kept to a minimum. Big trees with large root systems shall be cut manually and removed, as the use of a bulldozer will cause major damage to the soil when the root systems are removed. Stumps shall be treated with herbicide. Smaller vegetation can be flattened with a machine, but the blade should be kept above ground level to prevent scalping. Any vegetation cleared on a tower site shall be removed or flattened and not be pushed to form an embankment around the tower.

No vegetation clearing in the form of de-stumping, scalping or uprooting shall be allowed on river- and stream banks. Vegetation shall only be cut to allow for the passage of the pilot-cables and headboard. No vegetation clearing shall be allowed across ravines and gullies, as this vegetation will very rarely interfere with the clearance to the strung conductor. Trees and vegetation not interfering with the statutory clearance to the conductors can be left under the line. Dense vegetation under the line which could cause a fire hazard, particularly in the middle third of the span in the vicinity of the lowest point of the conductors, will be considered as a separate case.

No protected or endangered species of plants shall be removed without A PERMIT from Nature Conservation, the Landowner and Eskom. Where such species have to be removed due to interference with a structure, the necessary permission and permits shall be obtained. All protected species must be clearly marked and such areas fenced off if required.

The use of herbicides shall only be allowed after a proper investigation into the necessity, the type to be used, the long-term effects and the effectiveness of the agent. Eskom's approval for the use of herbicides is mandatory (Contact Dr. Eugene van Rensburg—TRI, 082 451 1994). Application shall be under the direct supervision of a qualified technician. All surplus herbicide shall be disposed of in accordance with the supplier's specifications.

IT IS RECOMMENDED THAT A CONTRACT0R FOR VEGETATION CLEARING SHOULD COMPLY WITH THE FOLLOWING PARAMETERS:

- **THE CONTRACTOR MUST HAVE THE NECESSARY KNOWLEDGE TO BE ABLE TO IDENTIFY PROTECTED SPECIES AS WELL AS SPECIES NOT INTERFERING WITH THE OPERATION OF THE LINE DUE TO THEIR HEIGHT AND GROWTH RATE.**
- **THE CONTRACTOR MUST ALSO BE ABLE TO IDENTIFY DECLARED WEEDS AND ALIEN SPECIES THAT CAN BE TOTALLY ERADICATED.**
- **THE CONTRACTOR MUST BE IN POSSESSION OF A VALID HERBICIDE APPLICATORS LICENCE.**

(Specifics about the project)

4.7.1. Management objective

- Minimise damage to vegetation
- Keep servitude as natural looking as possible
- Minimise interference by vegetation to flow of electricity
- Minimise possibility of erosion due to removal of vegetation
- Minimise removal of plant material on river and stream embankments
- Eradication of alien invader species

4.7.2. Measurable targets

- Only 6m vegetation cleared along the centre of the servitude
- No trees and vegetation removed unnecessarily
- No vegetation interfering with structures and statutory distances upon completion of the contract
- No de-stumping of vegetation on river and stream embankments
- No visible erosion scars three months after completion of the contract due to vegetation removal
- No visible damage to the vegetation along the servitude one year after completion of the contract due to herbicide use
- No litigation due to unauthorised removal of vegetation
- All alien invaders eradicated from the servitude

4.8. GATE INSTALLATION AND GATE CONTROL

The contractor is referred to the Fencing Act, Act no 31 of 1963. Gate installation shall be according to TRMSCAAC1 REV 3 section 4.5 and the drawing 0.00/10261 Rev 2 as stated in

the specifications. Game gates, drawing 0.00/10280 Rev 0, shall be installed where necessary. **All gates installed in electrified fencing shall be electrified as well.** The Environmental Control Officer shall approve gate positions. All gate positions shall be three (3) metres off centre to allow for continued access when stringing takes place.

All gates shall be fitted with locks and be kept locked at all times during the construction phase. Gates shall only be left open on request of the Landowner if he accepts partial responsibility for such gates in writing, once the Contractor have left site and the gates are fitted with Eskom locks. Such gates shall be clearly marked by painting the posts green. All claims arising from gates left open shall be investigated and settled in full by the Contractor. If any fencing interferes with the construction process, such fencing shall be deviated until construction is completed.

(Specifics about the project)

4.8.1. Management objective

- Properly installed gates to allow access to the servitude
- Minimise damage to fences
- Limit access to Eskom and Contractor personnel with gate keys

4.8.2. Measurable targets

- No transgressions of the fencing act and therefore no litigation
- No damage to fences and subsequent complaints from Landowners
- All gates equipped with locks and kept locked at all times to limit access to key holders
- All fences properly tied off to the gate posts
- All gates properly and neatly installed according to specifications
- No complaints about open gates

4.9. FIRE PREVENTION

No open fires shall be allowed on site under any circumstance (The Forest Act, No 122 of 1984, TRMSCAAC1 REV 3 section4.1.2). The Contractor shall have fire-fighting equipment available on all vehicles working on site, especially during the winter months.

4.9.1. Management objective

- Minimise risk of veld fires
- Minimise damage to grazing

4.9.2. Measurable targets

- No veld fires started by the Contractor’s work force
- No claims from Landowners for damages due to veld fires
- No litigation

4.10. SERVICING OF VEHICLES

Servicing of vehicles in the veld is strictly prohibited. Only emergency repairs shall be allowed on site and a drip tray shall be used to prevent oil spills. All vehicles shall be serviced in the designated area inside the Contractors camp. In the event of a breakdown in the veld, any oil spills shall be cleaned up immediately. (Refer also 3.8) The following shall apply:

- All contaminated soil shall be removed and be placed in containers. Contaminated soil can be taken to one central point at the Contractors campsite where bio-remediation can be done.
- Smaller spills can be treated on site.
- A specialist Contractor shall be used for the bio-remediation of contaminated soil.
- The area around the fuel storage drum at the Contractor's campsite shall also be re-mediated upon completion of the contract
- For further details contact John Geeringh at 011 800 2465. All oil spills must be reported to John Geeringh.

All old parts, packaging, old oil, etc. shall be disposed of in the correct manner and in a proper area designated for such waste materials. Under no circumstances shall such waste be buried on site indiscriminately.

4.10.1. Management objective

- Prevention of pollution of the environment
- Minimise chances of transgression of the acts controlling pollution

4.10.2. Measurable targets

- No pollution of the environment
- No litigation due to transgression of pollution control acts
- No complaints from Landowners

4.11. CLAIMS FOR DAMAGES

All anticipated crop damage shall be noted while access negotiations are underway. All damage to commercial crops shall be recorded immediately. The Environmental Control Officer should also keep a photographic record of such damage. The date, time of damage, type of damage and reason for the damage shall be recorded in full to ensure the responsible party is held liable. All claims for compensation emanating from crop damage should be directed to the Environmental Control Officer for appraisal. The Contractor shall be held liable for all unnecessary damage to the environment and crops. **A register shall be kept of all complaints from Landowners. All claims shall be handled immediately to ensure timeous rectification / payment.**

4.11.1. Management objective

- Minimise complaints from Landowners
- Prevent litigation due to outstanding claims
- Successful completion of the contract and all Landowners signing release forms

4.11.2. Measurable targets

- All claims investigated and settled within one month
- No litigation due to unsettled claims
- All Landowners signing release forms within six months after completion of the contract

4.12. TOWER POSITIONS

Refer to TRMSCAAC1 REV 3 SECTION 4.4.5 for specifications concerning tower sites on slopes. Disturbance of topsoil on tower sites with severe slopes shall be minimised at all costs. At any tower sites where conventional foundations are installed, the Contractor shall remove the topsoil separately and store it for later use during rehabilitation of such tower sites. During backfilling operations, the Contractor shall take care not to dump the topsoil in the bottom of the foundation and then put spoil on top of that.

Re-seeding shall be done on disturbed areas as directed by the Environmental Control Officer. In accordance with the Conservation of Agricultural Resources Act, No 43 of 1983, slopes in excess of 2% must be contoured and slopes in excess of 12% must be terraced. Other methods of rehabilitation of tower sites may also be used at the discretion of the Environmental Control Officer, e.g. stone pitching, logging, etc. Contour banks shall be spaced according to the slope on tower sites. The type of soil shall also be taken into consideration.

A mixture of grass seed can be used provided the mixture is carefully selected to ensure the following:
a) Annual and perennial grasses are chosen.
b) Pioneer species are included.
c) All the grasses shall not be edible.
d) Species chosen will grow in the area without many problems.
e) Root systems must have a binding effect on the soil.
f) The final product should not cause an ecological imbalance in the area.

To get the best results in a specific area, it is a good idea to consult with a specialist or the local extension officer of the Dept of Agriculture. Seed distributors can also give valuable advice as to the mixtures and amount of seed necessary to seed a certain area. Re-seeding, as well as fencing in of badly damaged areas, will always be at the discretion of the Environmental Control Officer, unless specifically requested by a Landowner.

(Specifics about the project, special tower positions, helicopter construction, etc.)

4.12.1. Management objective

- Minimise damage to topsoil and environment at tower positions
- Successful rehabilitation of all damaged areas
- Prevention of erosion

4.12.2. Measurable targets

- No loss of topsoil due to construction activities
- All disturbed areas successfully rehabilitated within three months of completion of the contract
- No visible erosion scars three months after completion of the contract

4.13. WINCH- AND TENSIONER STATIONS

The siting of winch and tensioner stations shall be done in conjunction with the ecologist/botanist and archaeologist that participated in the compilation of the EMP.

Specifications require the protection of Eskom supplied material on site, especially conductor drums. This normally means that a firebreak is bladed around a drum station in the veld. These areas are left to rehabilitate on their own which could be disastrous. Once the stringing

of conductor has been completed in a certain area, the winch- and tensioner stations shall be rehabilitated where necessary. If the area was badly damaged, re-seeding shall be done and fencing in of the area shall be considered and carried out. For seeding the same provisions as in 4.12 shall apply. (See also 4.12 about slopes).

Fencing in of the storage areas for drums on site is also proposed, as this will keep out animals and prevent injury. Should the Contractor want to leave guards on site, this should be discussed and negotiated with the Landowner. Proper facilities must be provided to ensure sanitation standards are met. Mobile chemical toilets shall be installed at such sites where a large number of the workforce is concentrated.

4.13.1. Management objective

- Minimise damage to vegetation
- Minimise damage to topsoil
- Successful rehabilitation of barren areas

4.13.2. Measurable targets

- No damage to vegetation outside the servitude
- No loss of topsoil
- No visible erosion three months after completion of the contract
- All disturbed areas successfully rehabilitated three months after completion of the contract

4.14. BATCHING PLANTS

The siting of batching plants shall be done in conjunction with the ecologist/botanist and archaeologist that participated in the compilation of the EMP.

Refer to TRMSCAAC1 REV 3 section 4.8 for specifications regarding batching plants. The batching plant area shall be operated in such a way as to prevent contaminated water to run off the site and polluting nearby streams or water bodies. To this effect diversion berms can be installed to direct all wastewater to a catchment area.

Eskom shall ensure that all agreements reached with the Landowner are fulfilled, and that such areas be rehabilitated once construction is completed. Should any claim be instituted against Eskom, due to the actions of the Contractor at a batching plant site, Eskom shall hold the Contractor fully responsible for the claim until such time that the Contractor can prove otherwise with the necessary documentation. (Refer to section 3.6 regarding use of water from a natural source at a bathing plant)

4.14.1. Management objective

- To ensure all agreements with Landowners are adhered to
- Prevention of complaints from Landowners
- Successful rehabilitation of disturbed areas

4.14.2. Measurable targets

- No complaints from Landowners
- All disturbed areas successfully rehabilitated three months after completion of the contract

4.15. STRINGING OPERATIONS

The necessary scaffolding must be installed to prevent damage to structures supporting certain perennial crops, such as grapes, as well as the crops itself (Refer TRMSCAAC1 REV 3 section 8.2.1.). All structures supplying services such as telephone and smaller power lines, as well as farm roads, shall be safeguarded by measures to prevent disruption of services (see Section7.4).

(Specifics about the project, known problems, etc.)

4.15.1. Management objective

- Prevent damage to expensive structures and crops
- Prevent disruption of services

4.15.2. Measurable targets

- No claims emanating from damage to supporting structures and crops
- No complaints or claims arising from disruption of services

5. SOCIAL ISSUES AND THEIR CONTROL

5.1. SANITATION

The Contractor shall install mobile chemical toilets on site (TRMSCAAC1 REV 3). Staff shall be sensitised to the fact that they should use these toilets at all times. Should the workers make use of the veld, all stools shall be buried.

5.1.1. Management objective

- Ensure that proper sanitation is achieved

5.1.2. Measurable target

- No complaints received from Landowners regarding sanitation

5.2. PREVENTION OF DISEASE

Applicable where the transmission line traverses land where stock (cattle and sheep) and game farming is practised. The Contractor shall take all the necessary precautions against the spreading of disease, especially under livestock. Refer to Section 5.2 and TRMSCAAC1 REV 3 regarding prevention measures. A record shall be kept of drugs administered and the dates when this was done. This can then be used as evidence in court should any claims be instituted against Eskom or the Contractor. **The workforce shall also be sensitised to the effects of sexually transmitted diseases, especially AIDS.**

5.2.1. Management objective

- Prevent litigation due to infestation of livestock

5.2.2. Measurable targets

- No complaints from Landowners
- No litigation

5.3. INTERACTION WITH LANDOWNERS

The success of the project depends a lot on the good relations with the Landowners. It is therefore required that the Contractor will supply one person to be the liaison officer (CLLO) for the entire contract, and that this person shall be available to investigate all problems arising on the work sites concerning the Landowners (TRMSCAAC1 REV 3)

All negotiations for any reason shall be between Eskom, the Landowner and the Contractor. **NO** verbal agreements shall be made. All agreements shall be recorded properly and all parties shall co-sign the documentation. It is proposed that the Contractor keep a photographic record of access roads. This will then be available should any claims be instituted by any Landowners. Any claims instituted by the Landowners shall be investigated and treated promptly. Unnecessary delays should be avoided at all costs.

The Landowners shall always be kept informed about any changes to the construction programme should they be involved. If the Environmental Control Officer is not on site the Contractor's liaison officer should keep the Landowners informed. The contact numbers of the Contractor's liaison officer and the Eskom ECO shall be made available to the Landowners. This will ensure open channels of communication and prompt response to queries and claims.

All contact with the Landowners shall be courteous at all times. The rights of the Landowners shall be respected at all times and all staff shall be sensitised to the effect that we are working on private property.

5.3.1. Management objective

- Maintain good relations with Landowners

5.3.2. Measurable targets

- No delays in the project due to Landowner interference

5.4. LITTERING CONTROL

Littering by the employees of the Contractor shall not be allowed (TRMSCAAC1 REV 3 section 4.1.2 and Environment Conservation Act, No 73 of 1989). The Environmental Control Officer shall monitor the neatness of the work sites as well as the campsite.(Refer section 3.7 regarding rubble and refuse disposal).

5.4.1. Management objective

- Neat workplace and site

5.4.2. Measurable targets

- No complaints from Landowners

6. BIOLOGICAL ISSUES AND THEIR CONTROL

6.1. FAUNA

Construction activities must be planned carefully so as not to interfere with the calving and lambing season for most animal species. The Contractor's workforce will have to

be very careful not to disturb the animals as this may lead to fatalities which will give rise to claims from the Landowners.

The Contractor shall under no circumstances interfere with livestock without the Landowner being present. This includes the moving of livestock where they interfere with construction activities. Should the Contractors workforce obtain any livestock for eating purposes, they must be in possession of a written note from the Landowner.

The breeding sites of raptors and other wild bird species shall be taken into consideration during the planning of the construction programme. There are many instances where protected and endangered species of birds are nesting on our transmission towers without causing any problems to the flow of electricity or network stability. These birds are highly territorial and some have been using the same nests for many years, I.e. Black Eagle (Witkruisarend). They are guarded jealously by the landowners and are monitored by many groups involved with ensuring their continued existence, including Nature Conservation officials at National and Provincial level.

It is therefore imperative that the breeding sites of these birds are kept intact and that the breeding pairs are not disturbed especially where there are young nestlings. The Contractor shall take all the necessary precautions and it is recommended that sites on parallel existing lines be noted, i.e. tower numbers. This information must then be given to the avian specialist via the Environmental Advisor so that the necessary action can be taken timeously.

Should any new sites or nests be found, during the construction process, that was not known or have been noted before, each site shall be assessed for merit and the necessary precautions be taken to ensure the least disturbance.
The recommendations of the avian specialist shall be adhered to at all time to prevent unnecessary disruption of such species. Bird guards and diverters shall be installed, as per the recommendations of the avian specialist, on the new line.

(Specifics about the project)

6.1.1. Management objective

- Minimise disruption of farming activities
- Minimise disturbance of animals
- Minimise interruption of breeding patterns of birds

6.1.2. Measurable targets

- No stock losses where construction is underway
- No complaints from Landowners or Nature Conservation
- No litigation concerning stock losses and animal deaths

6.2. FLORA

Protected or endangered species may occur along the line route. Special care should be taken not to damage or remove any such species unless absolutely necessary. Permits for removal must be obtained should such species be affected. All plants not interfering with the operation of the line shall be left undisturbed. **Collection of firewood is strictly prohibited**.

(Specifics about the project)

6.2.1. Management objective

- Minimal disturbance to vegetation where such vegetation does not interfere with construction and operation of the line
- Prevention of litigation concerning removal of vegetation

6.2.2. Measurable targets

- No litigation due to removal of vegetation without the necessary permits

6.3. HERBICIDE USE

Herbicide use shall only be allowed with the approval of Eskom. The application shall be according to set specifications and under supervision of a qualified technician. The possibility of leaching into the surrounding environment shall be properly investigated and only environmentally friendly herbicides shall be used (Refer section 4.7. regarding VEGETATION CLEARING and section 3.9 regarding storage of hazardous substances).

6.3.1. Management objective

- Control over the use of herbicides

6.3.2. Measurable targets

- No signs of vegetation dying due to leaching of herbicides one year after completion of the bush clearing
- No Landowner complaints and litigation

7. CULTURAL ISSUES AND THEIR CONTROL

7.1. ARCHAEOLOGY

The position of known sites will be shown on the final profiles. Such areas shall be marked as no go areas. Artefacts shall not be removed under any circumstances. Any destruction of a site can only be allowed once a permit is obtained and the site has been mapped and noted. The permit must be obtained from the National Museum.

Should any archaeological sites be uncovered during construction, their existence shall be reported to Eskom immediately, John Geeringh to be informed at 011 800 2465. An archaeologist will then take the necessary action so that construction can continue.

(Specifics about the project)

7.1.1. Management objective

- Protection of archaeological sites and land considered to be of cultural value
- Protection of known sites against vandalism, destruction and theft
- The preservation and appropriate management of new archaeological finds should these be discovered during construction

7.1.2. Measurable targets

- No destruction of or damage to known archaeological sites

- Management of existing sites and new discoveries in accordance with the recommendations of the Archaeologist

7.2. MONUMENTS/HISTORICAL SITES

All monuments and historical sites shall be treated with the utmost respect. Any graves shall be clearly marked and treated as no go areas. No destruction of any site shall be allowed. Should it be necessary to remove any graves, the necessary procedures shall be followed and permits obtained.

(Specifics about the project)

7.1.1. Management objective

- Protection of sites and land considered to be of cultural value
- Protection of known sites against vandalism, destruction and theft
- The preservation and appropriate management of new finds should these be discovered during construction

7.1.2. Measurable targets

- No destruction of or damage to known sites
- Management of existing sites and new discoveries in accordance with legislation
- No litigation due to destruction of sites

7.3. FARMHOUSES / BUILDINGS

If and where the lines cross any inhabited area, the necessary precautions shall be taken by the Contractor to safeguard the lives and property of the inhabitants. The Contractor shall under no circumstances interfere with the property of Landowners.

If water is required, the Contractor shall negotiate with the relevant Landowner and a written agreement shall be drawn up (TRMSCAAC1 REV 3 section 4.8).

(Specifics about the project)

7.3.1. Management objective

- Control over actions and activities in close proximity to inhabited areas

7.3.2. Measurable targets

- No complaints from Landowners
- No damage to private property

7.4. INFRASTRUCTURE

No telephone lines shall be dropped during the stringing operations. All crossings shall be with at least rugby posts to protect the lines. Where pipe lines are found along the route, the depth of the pipes under the surface shall be determined to ensure that proper protection is afforded to such structures. Any damage to pipe lines shall be repaired immediately.

All existing private access roads used for construction purposes, shall be maintained at all times to ensure that the local people have free access to and from their properties. Speed limits shall be enforced in such areas and all drivers shall be sensitised to this effect. Upon completion of the project all roads shall be repaired to their original state.

Many Landowners use electrically driven farming activities such as irrigation or dairies. Power cuts to facilitate construction and especially stringing must be carefully planned. If possible disruptions must be kept to a minimum and should be well advertised and communicated to the Landowners. Care must be taken not to damage irrigation equipment, lines, channels and crops, as this could lead to major claims being instituted against Eskom and the Contractor. The position of all pipelines and irrigation lines must be obtained from the Landowners and be shown on the physical access plan.

(Specifics about the project)

7.4.1. Management objective

- The control of temporary or permanent damage to plant and installations
- Control of interference with the normal operation of plant and installations
- Securing of the safe use of infrastructure, plant and installations

7.4.2. Measurable targets

- No unplanned disruptions of services
- No damage to any plant or installations
- No complaints from authorities or Landowners regarding disruption of services
- No litigation due to losses of plant, installations and crops

8. PROBLEMS FORESEEN ON THE PROJECT

8.1. PRE-CONSTRUCTION

Most Landowners will see the construction period as interference with their daily activities. There will be a negative attitude towards the whole construction process. Landowners are always apprehensive toward changes they do not control. Landowners shall therefore be informed timeously of the construction programme, duration and all interference with their daily activities.

8.2. DURING CONSTRUCTION

Due to the current security situation Landowners are not comfortable when strangers come on to their properties. They will look for reasons to interfere with the construction process and may therefore cause delays in the process that can be very costly to Eskom and the Contractor.

(Specifics about the project)

The Contractor is reminded that access shall not be continuous along the servitude and allowance must be made for the translocation of equipment around obstacles such as rivers and irrigation channels.

No camping shall be allowed on any private property. If the Contractor wants to leave guards on site, it shall only be done with the written consent of the Landowners involved.

Damage to fences, gates and other infrastructure may occur at any time. This will create problems with the Landowners and should be avoided as far as possible. All damage to be repaired immediately and to the satisfaction of the landowner.

The use of private roads for construction purposes always leads to damage due to heavy equipment and frequent use. It is foreseen that the Contractor will receive many complaints in this regard, especially during the rainy season.

8.3. AFTER CONSTRUCTION

If damaged infrastructure is not repaired to the expectations of the Landowners, they may refuse to sign the release forms and even engage in litigation. Outstanding claims may also result in release forms not being signed by the Landowners.

9. POSSIBLE SOLUTIONS TO THE PROBLEMS

9.1. Proper liaison between Eskom, the Contractor and Landowners.
9.2. A physical access plan along the servitude shall be compiled and the Contractor shall adhere to this plan at all times. Proper planning when the physical access plan is drawn up by the Environmental Control Officer in conjunction with the Contractor shall be necessary to ensure access to all tower sites.
9.3. The Landowners shall be informed of the starting date of construction as well as the phases in which the construction shall take place.
9.4. The Contractor must adhere to all conditions of contract including the Environmental Management Programme.
9.5. Proper planning of the construction process to allow for disruptions due to rain and very wet conditions.
9.6. All servitude gates on a section of the line route shall be completely installed before any construction activities are undertaken.
9.7. Where existing private roads are in a bad state of repair, such roads' condition shall be documented before they are used for construction purposes. If necessary some repairs should be done to prevent damage to equipment and plant.
9.8. All manmade structures shall be protected against damage at all times and any damage shall be rectified immediately.
9.9. Rehabilitation of the servitude roads shall be done properly to ensure all Landowners sign the release forms. The Contractor shall ensure that all damaged areas are rehabilitated to the satisfaction of Eskom and each and every property owner and that outstanding claims are settled.
9.10. Proper site management and regular monitoring of site works.
9.11. Proper documentation and record keeping of all complaints and actions taken.
9.12. Regular site inspections and good control over the construction process throughout the construction period.
9.13. A positive attitude towards Environmental Management by all site personnel.
9.14. Appointment of a Landowner Liaison Officer on behalf of the Contractor to implement this EMP as well as deal with all Landowner related matters.

9.15. Environmental Audits to be carried out during and upon completion of construction **(at least two for the project).**
9.16. **The Contractor shall not be released from site until all Landowners have signed off the release documentation to the satisfaction of the Environmental Control Officer.**

10. TOWER SPECIFIC PROBLEM AREAS

Tower specific problems are shown on the profiles and accompanying photographs (Appendix 13.2). No-go areas are also identified on the profiles.

10.1. ESTIMATED QUANTITIES FOR SPECIAL WORKS ALONG THE SERVITUDE

10.1.1. Water diversion berms

The contractor shall allow for the installation of water diversion berms as per the contract schedule. Berms shall be installed according to TRMSCAAC1 REV 3. It is foreseen that approximately _____km of servitude through natural veld will require water diversion berms on the servitude road. IN THE SECTION OF THE LINE THAT RUNS THROUGH CROP FARMING AREAS, BERMS ARE NOT REQUIRED. Contour berms in crop farming areas shall be protected and rehabilitated upon completion of the contract. Berms will only be installed on private roads following special requests from Landowners. Existing berms on private roads shall however be maintained and repaired where required. Approximate quantities required:

- In situ : ____ water diversion berms
- Imported material : ____ water diversion berms

10.1.2. Concrete pipes : ____ crossings

10.1.3. Protection of irrigation lines : ____ crossings

10.1.4.a. Bush clearing (km) : ____km 6m wide strip
10.1.4.b. Bush clearing (km)(Selective) : ____km _____ m wide strip

10.1.5. Special stringing arrangements

- The Contractor will not be able to cross a river with conventional tractors pulling the pilot cable. Some other solution needs to be found for river crossings at _____ (sections of the line).
- The sections of the line crossing the _____ where special measures are required to protect the _____ (approximately _____m).
- The sections of line where special measures will be used to cross ravines or bush filled valleys and gullies.

11. PHYSICAL ACCESS PLAN

The Contractor (CLLO), in conjunction with the Environmental Control Officer (ECO) and Landowners, shall draft a physical access plan. No decisions shall be made without the consent of the Landowner. The standard Eskom site documentation shall be used. All agreements should be in writing and well documented.

The physical access plan shall allow for the installation of concrete pipes and drifts where such structures may be needed to facilitate access. The Environmental Control Officer in conjunction with the Contract Manager shall use discretion as to what special measures will be required to ensure access (Refer also Section 10.1). The necessary agreements reached shall be implemented to the satisfaction of the landowner.

12. SITE DOCUMENTATION / MONITORING / REPORTING

The standard Eskom site documentation shall be used to keep records on site. All documents shall be kept on site and be available for monitoring and auditing purposes. Site inspections by an Environmental Audit Team may require access to this documentation for auditing purposes. The documentation shall be signed by all parties to ensure that such documents are legal. Regular monitoring of site works by the Environmental Control Officer is imperative to ensure that all problems encountered are solved punctually and amicably. When the Environmental Control Officer is not available, the Contract Manager/Site Supervisor shall keep abreast of all works to ensure no problems arise.

Two-weekly reports shall be forwarded to the appointed Transmission Engineering Environmental Advisor with all information relating to environmental matters. The following **Key Performance Indicators** must be reported on a two-weekly basis:

1. Complaints received from Landowners and actions taken.
2. Environmental incidents, such as oil spills, concrete spills, etc. and actions taken (litigation excluded).
3. Incidents possibly leading to litigation and legal contravention's.
4. Environmental damage that needs rehabilitation measures to be taken.

The following documentation shall be kept on site:

12.1. Access negotiations and physical access plan.
12.2. Complaints register.
12.3. Site daily dairy.
12.4. Records of all remediation / rehabilitation activities.
12.5. Copies of two-weekly reports to the Tx Engineering Environmental Advisor at MWP.
12.6. Copy of the Environmental Management Programme.

13. REFERENCES

13.1. Conservation of Agricultural Resources Act, Act 43 of 1983 and amendments.
13.2. Environmental Impact Report.
13.3. Eskom Environmental Policy, ESKPBAAD6, REV 6.
13.4. Eskom Environmental Management Procedure, ESKPVAAZ1 REV 1.
13.5. Eskom Guidelines for Herbicide Use, TRR/S91/032.
13.6. Environment Conservation Act, Act 73 of 1989 and amendments.
13.7. Fencing Act, Act 31 of 1963 and amendments.
13.8. Forest Act, Act 122 of 1984 and amendments.
13.9. Herbicide Management, ESKPBAAD4 REV 0
13.10. Record of Decision – DEAT.
13.11. Standard for bush clearance and maintenance within overhead power line servitudes, ESKASABG3 REV 0
13.12. Specification for line construction, TRMSCAAC1 REV 3.

14. PRO FORMA TO BE SIGNED BY THE CONTRACTOR AND ESKOM PROJECT MANAGER

CONTRACT NAME: _____

CONTRACT NUMBER: _____

ENVIRONMENTAL COMPLIANCE

I _____ ON BEHALF OF _____(C)

I _____ ON BEHALF OF ESKOM

DECLARE AS FOLLOWS:

1. I AM AWARE THAT CONSTRUCTION, REFURBISHMENT OR UPGRADING ACTIVITIES CAN HAVE A MAJOR IMPACT ON THE ENVIRONMENT.
2. I UNDERTAKE TO ADHERE TO THE REQUIREMENTS AS SET OUT IN THE ENVIRONMENTAL MANAGEMENT PROGRAMME AND THE RECORD OF DECISION FROM DEAT.
3. I PLEDGE TO INFORM ALL SITE STAFF OF THEIR INVOLVEMENT IN MANAGING ENVIRONMENTAL IMPACTS ON SITE.
4. I COMMIT TO IMPLEMENTING ENVIRONMENTAL BEST PRACTISE ON SITE AT ALL TIMES DURING THE CONTRACT.

SIGNED: _____ DATE: _____

CONTRACTOR

SIGNED: _____ DATE: _____

ESKOM

15. APPENDICES

15.1. LANDOWNER SPECIAL CONDITIONS.
15.2. PROFILE SHEETS AND PHOTOGRAPHS.
15.3. ESKOM ENVIRONMENTAL POLICY.
15.4. ESKOM BUSHCLEARING STANDARD – ESKASABG3 rev 0.
15.5. RECORD OF DECISION FROM DEAT.