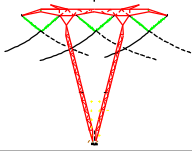


# Notice of an Environmental Impact Assessment

Majuba - Umfolozi 765kV Transmission Power Line



## Background Information Document

September 2005



### The aim of this document

This document provides you with an overview of the various aspects of the environmental studies. This information should provide you with sufficient background to participate in this study:

- ▶ An overview of the proposed project planned by Eskom Transmission;
- ▶ A description of the key activities which form part of the environmental impact assessments;
- ▶ A description of the potential impacts associated with the construction & operation of Transmission power lines;
- ▶ A map of the study area showing the various corridors for the transmission lines.

### Inhloso yalo mbhalo

Lo mbhalo ukunikeza incazelo jikelele yezingxenywe ehlukene zezingcwaningo zemvelo. Lolu lwazi kumele lukunikeze isendlalelo esanele sokuthi ubambe iqhaza kulolu cwaningo:

- ▶ Incazelojikelele yephrojekthi ephakanyisiwe ehlelwe yi- Transmission ye-Eskom;
- ▶ Incazelo yemisebenzi esemqoka eyakha ingxenye yokuhlola kwamandla emvelo;
- ▶ Incazelo yamandla angabakhona ahambisana nokwakha kanye nokusetshenziswa Kwamalayini e-Transmission;
- ▶ Ibalazwe lendawo yocwaningo ebonisa amaphasiji ahlukene amalayini e-transmission.

### Die doel van dié dokument

Hierdie dokument bied u 'n oorsig oor die verskillende aspekte van die omgewingstudies. Hierdie inligting behoort u genoeg agtergrond te bied om aan hierdie studie deel te neem:

- ▶ 'n Oorsig van die voorgename projek wat Eskom Transmissie beplan;
- ▶ 'n Beskrywing van die sleutelaktiwiteite wat deel vorm van die omgewingsimpakstudies;
- ▶ 'n Beskrywing van die moontlike impak wat met die konstruksie & werking van Transmissielyste verbands hou;
- ▶ 'n Kaart van die studiegebied wat die verskillende korridors vir die Transmissielyste aandui.

### How to participate in this study

Consultation will take place with Interested & Affected Parties (I&APs) through public open days, and focus group workshops. You can participate by contacting the following individuals at the Public Information Office.

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13 Sydney Carter Street  
2195 Roosevelt Park

**Tel & Fax:** (011) 782 4744

**Joseph Masilela:** Cell: 083 565 2395  
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e-mail: [karinbow@iafrica.com](mailto:karinbow@iafrica.com)

**Visit the website:** [www.eskom.co.za/eia](http://www.eskom.co.za/eia)



# Background to the study

The electricity demand in KwaZulu-Natal is increasing at a much faster rate than was originally expected. Studies have shown a steady 3-5% per annum average load growth for the area which is fed mainly from the Mpumalanga power generation pool, which includes the Majuba Power Station. Of the practical alternatives available, Eskom has decided to address this by strengthening the existing network to ensure a reliable supply. A 765kV Transmission Power Line between the Majuba Power Station near Amersfoort (Mpumalanga) and the Umfolozi Substation near Ulundi in KwaZulu-Natal (KZN) is proposed.

Electricity cannot be stored, it is therefore necessary to generate and deliver power over long distances at the very instant it is needed. The power which is required in KZN is generated mainly from Power Stations located on the Mpumalanga coal fields, is transmitted to major substations where the voltage is reduced for distribution to industry, businesses, homes and farms all over the country.

If Eskom Transmission is to ensure a reliable supply, it has to constantly maintain its infrastructure of Transmission power lines and Substations. In addition, Eskom has to meet environmental obligations in its planning and operations.

Three probable corridors within which the Transmission power line route could be positioned in this Environmental Impact Assessment (EIA) will be investigated. These corridors are shown on the study area map on pages 5 & 6.

## The Environmental Impact Assessment Process

In line with environmental regulations, Eskom Transmission has appointed BKS (Pty) Ltd to conduct the Environmental Impact Assessment (EIA). Formal applications and consultation will be held with environmental authorities at National level and in Mpumalanga and KwaZulu-Natal. The EIA process consists of the following three main phases:

### Ü Scoping Phase

- ⇒ The specialists “scope” the alternative route corridors to gain a better understanding of the potential impacts;
- ⇒ The public is invited to raise issues and concerns relating to the route corridors;
- ⇒ The specialist information and public information is compiled into a Draft Scoping Report which goes to the public and the environmental authorities for comment.

### Ü Environmental Assessment phase

- ⇒ The specialists further investigate the route corridors to evaluate all the issues and impacts which have been identified by them as well as the public;
- ⇒ The specialists make a recommendation on the most environmentally suitable route corridor (socially, economically and biophysically).
- ⇒ This recommendation is presented to the public and the authorities for comment in a Draft Environmental Impact Report. All comments are incorporated into a final report.

### Ü Record of Decision (ROD)

A ROD is issued by the National Department of Environmental Affairs & Tourism. The public is given 30 days to appeal the ROD if they are in disagreement.

# Isendlalelo Socwaningo

Isidingo sikagesi KwaZulu-Natali sikhula ngesilinganiso esishesha kakhulu ukwedlula kuloku okwakulindelwe ukusuka ekuqaleni. Izingcwaningo zibonise ukukhula okusimeme okungama- 3-5% ngonyaka kususindo esiphakathi endaweni enikezwa kakhulukazi ngamandla okuqokelela kagesi avela e-Mpumalanga, efaka ne-Majuba Power Station. Ezehlakalweni ezingaba khona ezingenzeka, i-Eskom ithathe isinqumo sokubhekana naloku ngokuqinisa umphambo okhona ukuqinisekisa ukunikezela okwethembekileyo. Ilayini ye-Transmission ye-765kV ngaphakathi kwe-Majuba Power Station eduzane nase-Amersfoort (e-Mpumalanga) kanye nesiteshi esincanyana sase-Umfolozo eduzane ne-Ulundi KwaZulu-Natal (KZN) iphakanyisiwe.

Ugesi awukwazi ukugcinwa, ngakho-ke kunesidingo sokukhipha kanye nokwethula amandla kumabanga amade ngaleso sikhathi odingeka ngaso. Amandla kagesi adingeka e-KZN enziwa ikakhulukazi ukusuka kumasiteshi Zamandla ezibekwe ezindaweni zamalahle zase-Mpumalanga, ezikhishelwa kuziteshi ezincane ezisemqoka lapho ama-voltage ehlesiwe ekunikezeleni ezimbonini, amabhizinisi, amakhaya kanye namapulazi ezweni lonke jikelele.

Uma ngabe i-Transmission ye-Eskom kumele iqinisekise ukunikezela okwethembekile, kumele igcine ngokungaguquki kuNgqalasizinda yamaLayini e-Transmission kanye Neziteshi Ezincanyana. Ukwengeza, I-Eskom kumele ifinyelele amagunya emvelo ekuhleleni nasekusebenzeni kwayo.

Amaphasiji amathathu angabakhona angaphakathi kwendlela Yelayini ye-Transmission angabekwa kuloku Kuhlolwa Kwamandla Emvelo (i-EIA) azophenya. Lawa maphasiji aboniswa ebalazweni lendawo yocwaningo emakhasini e-5 kanye nawe- 6.

## Inqubo Yokuhlola Kwamandla Emvelo

Ngokuhambisana nemithetho yemvelo, I-Transmission ye-Eskom iqashe abakwa-BKS (Pty) Ltd ukuthi benze Ukuhlolwa Kwamandla Emvelo (i-EIA). Ukufaka izingcinga nokuxhumana okusemthethweni kuzokwenziwa neziphathimandla zemvelo elevelini kazwelonke kanye nase-Mpumalanga naKwaZulu-Natali. Inqubo ye-EIA iqukethe amazinga asemqoka alandelayo:

### Ü Izinga Lendawo Yokwenza

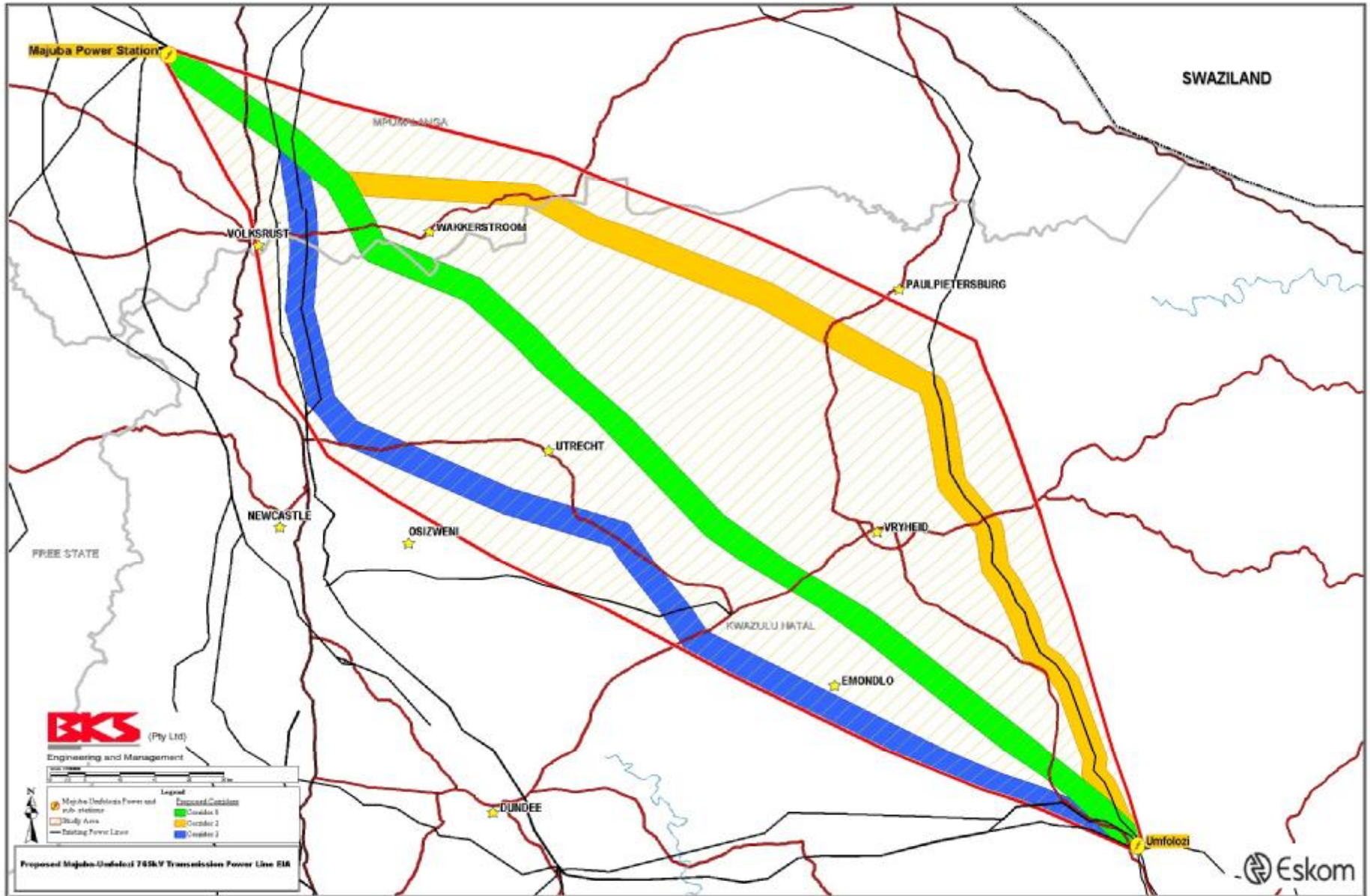
- ⇒ Ingcweti “lenza indawo” okungamanye amaphasiji ayindlela ukuze ithole ukuqonda kangcono ukungabakhona kwamandla;
- ⇒ Umphakathi uyamenywa ukuba uzokwethula izindaba nemibuzo ngokuphathelele namaphasiji endlela;
- ⇒ Ulwazi lwengcweti nelomphakathi luyahlanganiswa lwenziwe Uhlaka Oluwumbiko Wendawo Yokwenza oya emphakathini kanye nakuziphathimandla zemvelo ukuze zinikeze imibono ngayo.

### Ü Izinga Lokuhlola Imvelo

- ⇒ Izingcweti ziqhubeka futhi ziphenye amaphasiji ayindlela uhkohlola zonke izindaba kanye namandla eziye zaboniswa yibo kanye nomphakathi.
- ⇒ Izingcweti zenza isiphakamiso ngephasiji yendlela efanela imvelo kakhulu (ngokwezenhlalohle, ezomnotho kanye nokuphilayo ngokobuntu).
- ⇒ Lesi siphakamiso sethulwa emphakathini kanye nakuziphathimandla ukuze zinikeze imibono Embikweni Owuhlaka Wamandla Emvelo. Yonke imibono izofakwa kumbiko wokugcina.

### Ü Ukubhalwa kwezinqumo (i-ROD)

I-ROD inikezwa Ngumnyango Wezindaba Zemvelo NezokuVakasha. Umphakathi unikezwa izinsuku eziyi-30 ukufaka isikhalo nge-ROD uma bengavumelani nayo.



# Agtergrond tot die studie

Die vraag na elektrisiteit in KwaZulu-Natal neem baie vinniger toe as wat aanvanklik voorsien is. Studies het 'n gemiddelde vaste jaarlikse ladingsgroei van 3-5% vir die gebied getoon, wat hoofsaaklik vanaf Mpumalanga se kragopwekkingspoel gegeneer word, insluitend die Majuba-kragstasie. Van die praktiese alternatiewe wat beskikbaar is, het Eskom besluit om dit aan te spreek deur die bestaande netwerk te versterk om ononderbroke toevoer te verseker. 'n 765kV-Transmissie kraglyn tussen die Majuba-kragstasie naby Amersfoort (Mpumalanga) en die Umfolozi-substasie naby Ulundi in KwaZulu-Natal (KZN) is voorgestel.

Elektrisiteit kan nie geberg word nie, en gevolglik is dit nodig om krag op te wek en oor lang afstande af te lewer op die oomblik wat dit benodig word. Die krag wat in KZN benodig word, word hoofsaaklik by Kragstasies op Mpumalanga se steenkoolvelde opgewek, na hoofsubstasies gestuur waar die stroomspanning verminder word vir verspreiding na nywerhede, sakeondernemings, huise en plase regoor die land.

Om Eskom Transmissie in staat te stel om ononderbroke toevoer te verseker, moet sy infrastruktuur van Transmissie kraglyne en Substasies voortdurend in stand gehou word. Daarbenewens moet Eskom tydens sy beplanning en prosesse aan omgewingsvereistes voldoen.

Drie moontlik korridors waarbinne die Transmissie kraglyn se roete geplaas kan word, word in hierdie Omgewingsimpakstudie ondersoek. Hierdie korridors word op die studiekaart op bladsye 5 & 6 aangedui.

## Die Omgewingsimpakstudie-proses

In lyn met omgewingsregulasies het Eskom Transmissie BKS (Edms) Bpk aangestel om die Omgewingsimpakstudie (OIS) te doen. Formele aansoeke en konsultasie sal met omgewingsowerhede op Nasionale vlak en in Mpumalanga en KwaZulu-Natal plaasvind. Die OIS-proses behels die volgende drie vernaamste fases:

### Ü Omvangsfase

- ⇒ Die spesialis bepaal die omvang van die alternatiewe roetekorridors om 'n beter begrip van die moontlike impak daarvan te kry;
- ⇒ Die publiek word uitgenooi om kwessies en probleme met betrekking tot die roetekorridors te opper;
- ⇒ Die spesialisinligting en openbare inligting word in 'n Konsepomvangsverslag saamgevat wat na die publiek en die omgewingsowerhede gaan vir kommentaar.

### Ü Omgewingsimpakfase

- ⇒ Die spesialis ondersoek die roetekorridors verder om al die kwessies en impakte wat deur hulle, sowel as die publiek geïdentifiseer is, te evalueer.
- ⇒ Die spesialiste maak 'n aanbeveling oor die mees omgewingsvriendelike roetekorridor (maatskaplik, ekonomies en biofisies).
- ⇒ Dié aanbeveling word aan die publiek en die owerhede vir kommentaar voorgelê in 'n Konsepomgewingsimpakverslag. Alle kommentaar word in 'n finale verslag saamgevat.

### Ü Register van Besluit (RVB)

'n RVB word deur die Nasionale Departement van Omgewingsake & Toerisme uitgereik. Die publiek het 30 dae om teen die RVB te appelleer indien hulle daarvan verskil

Generic issues associated with Transmission Power Lines during construction & operation	Izindaba eziwayelekile eziphatelene namalayini e-Transmission ngesikhathi sokwakha Nokusebenzisa	Generiese kwesies wat verband hou met Transmissie kraglyne tydens konstruksie & bedryf
<b>Socio-Economic</b>	<b>Social and well-being continued.</b>	
Improvement of reliability of supply, national, provincial & local.	Loss of sense of place	
Eco-tourism	Access roads	
Compensation for servitudes	<b>Natural Environment</b>	
Agricultural activities	Erosion	
Property values	Impact on plants	
<b>Social &amp; well-being</b>	Impact on birds	
Electromagnetic Fields (EMFs)	Impact on wetlands & conservation areas	
Fire management	Poaching of fauna and flora	
Dust & noise pollution	Opportunities of ecological corridors	
Safety	Management of alien plants	
Immigration of construction workers	<b>Cultural &amp; Historical Sites</b>	
Relocation of people	Palaentological sites	
Visual impacts	Cultural & historical sites	
	Religious sites	

### Alternatives

The EIA also requires that alternatives are considered as part of the study. These alternatives may include:

- Alternative sources of power generation
- Strategic considerations
- Alternative route options
- Design alternatives

### Eminye imibono

I-EIA nayo idinga ukuthi kubhekwe eminye imibono njengengxenywe yocwaningo. Lena eminye imibono ingafaka:

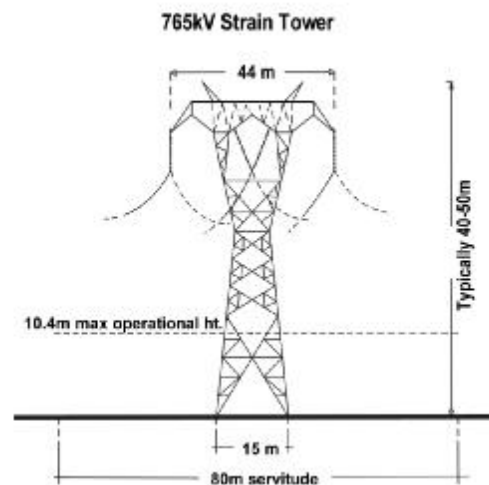
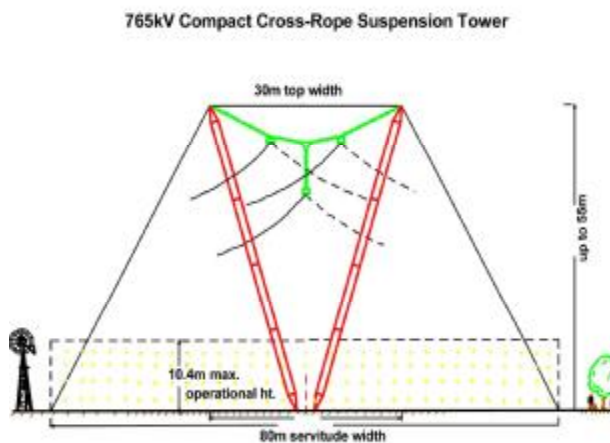
- Eminye imithombo yamandla okukhipha
- Ukunaka amasu athile
- Ukhethe lwezinye izindlela
- Ezinye izifanekiso

### Alternatiewe

Die OIS vereis ook dat alternatiewe as deel van die studie oorweeg word. Hierdie alternatiewe mag die volgende insluit:

- Alternatiewe bronne van kragopwekking
- Strategiese oowegings
- Alternatiewe roete-opsies
- Alternatiewe ontwerpe

## TYPICAL STRUCTURES WHICH COULD BE USED FOR THE 765kV TRANSMISSION POWER LINE



## The specialist team

Issues raised by the public and arising from consultation with Eskom Transmission on the technical viability of the various corridor alignments, will be investigated by the following specialist team:

Birds	Chris van Rooyen	Heritage	Len van Schalkwyk
Ecology	Johan Bodenstein	Socio-economic	Marinda le Roux
Enviro-legal	Catherine Warburton	Soils	Garry Paterson
Geology	Dave Purnell	Visual	Menno Klapwyk

## Iqembu lezingcweti

Iqembu lezingcweti lizobhekana nezindaba eziphakanyiswe ngumphakathi, bese lixhumana futhi ne-Transmission ye-Eskom ukuze liqonde kangcono ukusebenza kobuchwepheshe bokulinganiswa kwamaphasiji ahlukene, lakhiwe ngabantu abalandelayo:

I-Archaeology	Len van Schalkwyk	Ezokubona	Menno Klapwyk
Izinyoni	Chris van Rooyen	Ezemvelo Nomthetho	Catherine Warburton
I-Ikholoji	Johan Bodenstein	Imihlabathi	Garry Paterson
Ezenhlalanhle nezomnotho	Marinda le Roux	Ijiyoloji	Dave Purnell

## Die span spesialiste

Die span spesialiste wat kwessies wat deur die publiek geopper is, sal oorweeg en wat ook met Eskom Transmissie konsulteer om die tegniese lewensvatbaarheid van die verskillende korridorrigtingslyne beter te verstaan, bestaan uit die volgende persone:

Argeologie	Len van Schalkwyk	Visueel	Menno Klapwyk
Voëls	Chris van Rooyen	Omgewingswetlik	Catherine Warburton
Ekologie	Johan Bodenstein	Grond	Garry Paterson
Sosio-ekonomies	Marinda le Roux	Geologie	Dave Purnell

## Hoe om aan hierdie studie deel te neem

Konsultasie met Belanghebbende & Geaffekteerde Partye (B&GPs) sal by wyse van publieke opedae en werkwinkels vir fokusgroepe geskied. U kan deelneem deur die volgende persone by die Publieke Inligtingskantoor te kontak:

Karin Bowler Enterprises  
Sydney Carterstraat 13  
2195 Roosevelt Park

**Tel & Faks:** (011) 782 4744

**Joseph Masilela:** Sel: 083 565 2395  
e-pos: [josephbow@iafrica.com](mailto:josephbow@iafrica.com).

**Karin Bowler:** Sel: 082 809 7624  
e-pos: [karinbow@iafrica.com](mailto:karinbow@iafrica.com)

**Besoek die webblad:** [www.eskom.co.za/eia](http://www.eskom.co.za/eia)

## Ungabamba kanjani iqhaza kulolu cwaningo

Ukuxhumana kuzokwenziwa nabantu Abanokunaka kanye nabathelelekayo (ama-I kanye nama-AP) ngokwenza izinsuku ezivulelwe uwonke wonke zomphakathi, kanye namashabhu abhekene ngqo namaqembu. Ungabamba iqhaza ngokuxhumana nomuntu ngamunye Ehhovisi Lolwazi Lomphakathi.

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