

2.1.1 Woodland

Woodland (or savanna) is the dominant vegetation type in the study area and it is defined as having a grassy under-storey and a distinct woody upper-storey of trees and tall shrubs (Harrison et al 1997). Moist woodland comprises predominantly broadleaved, winter deciduous woodland. Soil types are varied but are generally nutrient poor. The woodland biome contains a large variety of bird species (it is the most species-rich community in southern Africa) but very few bird species are restricted to this biome. It is also relatively well conserved compared to the grassland biome. The woodland biome is particularly rich in large raptors, and forms the stronghold of power line sensitive Red Data species such as White-backed Vulture Gyps africanus, Cape Vulture Gyps coprotheres, Martial Eagle Polemaetus bellicosus, Tawny Eagle Aquila rapax, and Lappet-faced Vulture Torgos tracheliotis. Apart from Red Data species, it also serves as the stronghold of several non-Red Data raptor species, such as the Brown Snake-Eagle Circaetus cinereus, Blackchested Snake-Eagle Circaetus pectoralis, and a multitude of medium-sized raptors for example the migratory Steppe Buzzard Buteo vulpinus, African Harrier Hawk (Gymnogene) Polyboroides typus, Wahlberg's Eagle Aquila wahlbergi and African Hawk-Eagle Aquila spilogaster. Apart from raptors, woodland in its undisturbed state is suitable for a wide range of other power line sensitive birds, including the Kori Bustard Ardeotis kori.

The vast majority of the bird habitat in the study area comprises woodland which is relatively well preserved with little evident transformation of the natural habitat. It can therefore be assumed that most of the power lines sensitive species mentioned in the preceding paragraph should still be found in the study area, ranging from residents to occasional visitors (see also TABLE 2 in this respect).

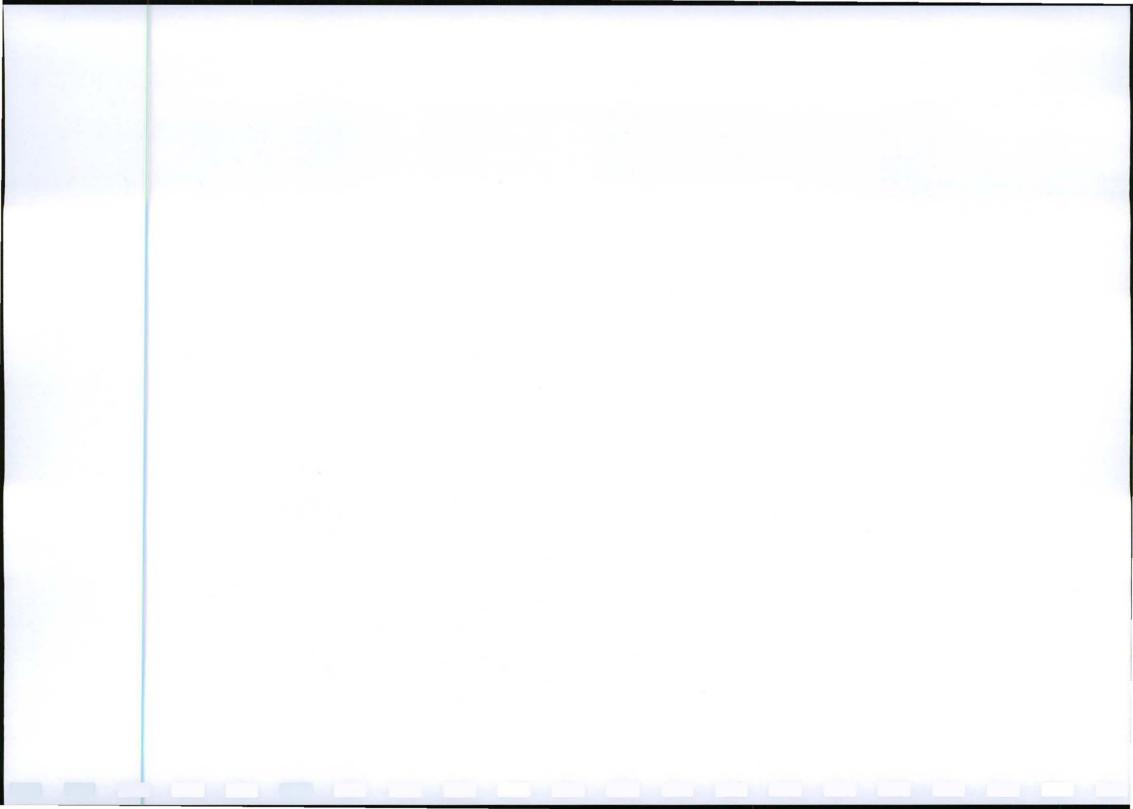
2.2 Bird micro-habitats

Whilst much of the bird species distribution in the study area can be explained in terms of the above broad vegetation description (based on the quarter degree grid cells), there are many differences in bird species distribution and density that correspond to differences in habitat at the micro level. These "bird micro-habitats" are evident at a much smaller spatial scale than the broader vegetation types or biomes, and can largely only be identified through a combination of field investigation and experience.

The following bird micro-habitats, within the broader woodland habitat, were identified during the field investigation (see APPENDIX A for examples of the micro-habitat).

2.2.1 Agricultural lands

Limited crop cultivation was practiced in the study area in the past, resulting large areas where the trees were cleared to make way for cereal crops. This practice is not widely followed anymore, and most of these areas have now reverted back to a form of grassland with scattered trees. There are a few irrigated pivots, mostly along the Mokolo River. Red Data power line sensitive species that could be attracted to this type of habitat include Secretarybird Sagittarius serpentarius and Kori Bustard Ardeotis kori. Other power line sensitive non-Red Data species that could also be attracted to these areas are various raptors, including Black-chested Snake-Eagle and Steppe Buzzard.



2.2.2 Rivers or drainage lines

Most rivers in southern Africa are in the east and extreme south, in the higher rainfall areas. Thirteen species of water bird are mostly restricted to riverine habitat in southern Africa. The map distribution of these species correlates with the river courses in southern Africa. The prominent rivers that occur within the study area, are the Bulge, Mokolo and Malmanies. Some Red Data species listed in TABLE 2 could potentially occur along these rivers, these include all the storks, Half-collared Kingfisher Alcedo semitorquata and White-backed Night-Heron Gorsachius leuconotus. Rivers are extremely important sources of water for most bird species and will be regularly utilised not only as a source of drinking water and food, but also for bathing. Large trees in the riparian zone are also important for roosting and breeding raptors.

2.2.3 Dams

Many thousands of earthen and other dams exist in the southern African landscape. Whilst dams have altered flow patterns of streams and rivers, and affected many bird species detrimentally, a number of species have benefited from their construction. The construction of these dams has probably resulted in a range expansion for many water bird species that were formerly restricted to areas of higher rainfall. Man made impoundments, although artificial in nature, can be very important for variety of birds, particularly waterbirds. Apart from the water quality, the structure of the dam, and specifically the margins and the associated shoreline and vegetation, plays a big role in determining the species that will be attracted to the dam. In this instance, there are several small dams in the study area. Several Red Data species listed in TABLE 2 could potentially occur at these dams, particularly the storks. Raptors could also be attracted to shallow sloping dams for bathing and drinking purposes.

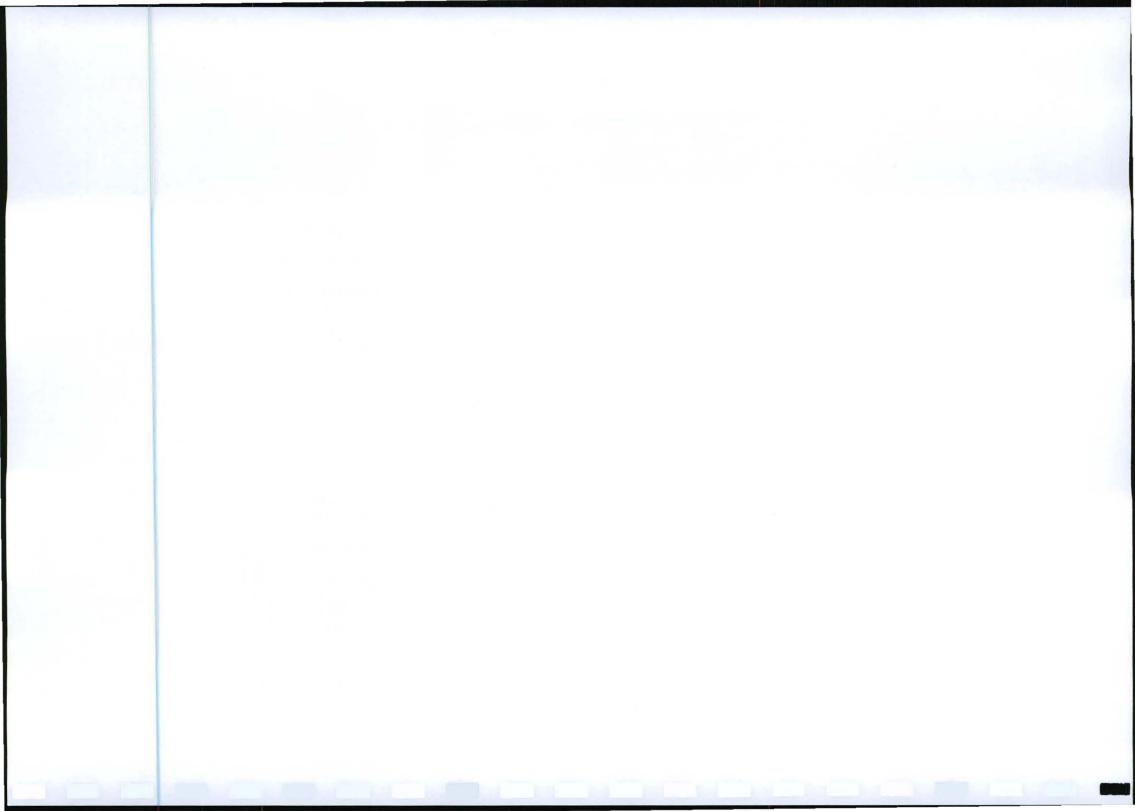
2.3 Bird species present in the study area

TABLE 2 below lists the Red Data species that may occur in the three relevant quarter degree grid cells in which the study area is situated.

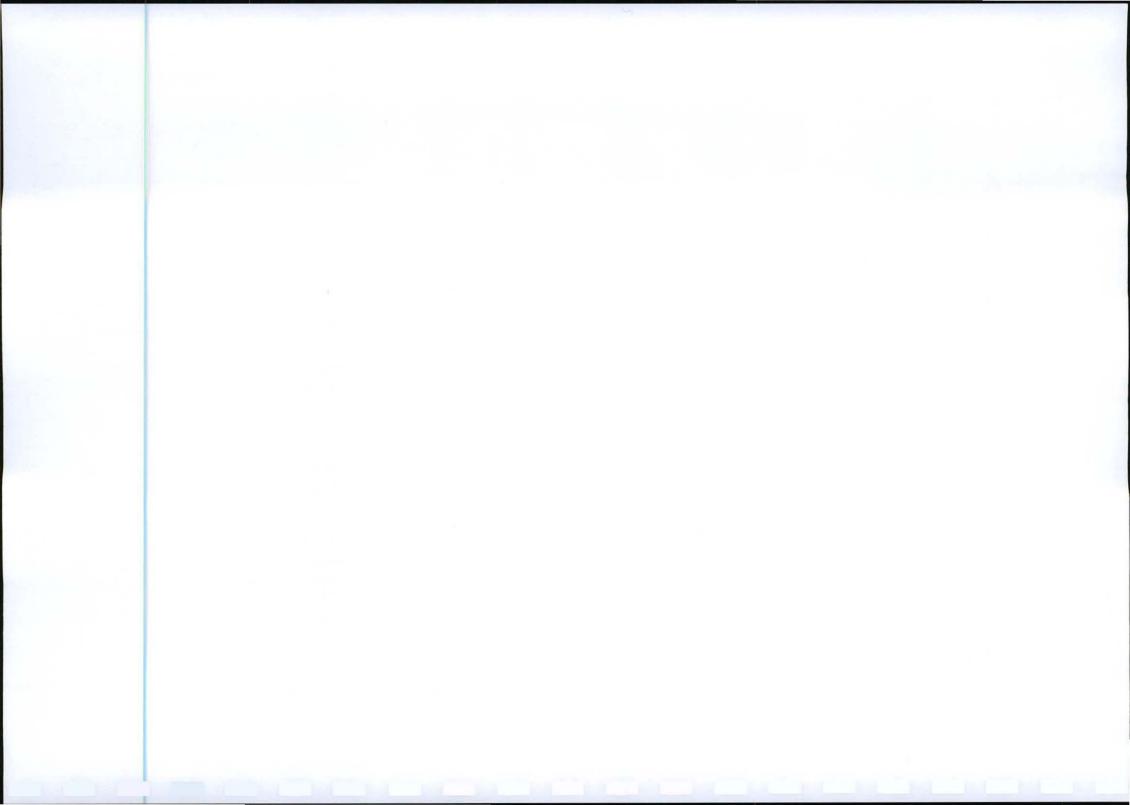


TABLE 2. Red Data species that may occur in the quarter degree grid cells in the study area.

Species	Red Data status (Barnes 2000)	Habitat requirements (Barnes 1998; Barnes 2000; Hockey et.al.2005; Young et.al.2003; Harrison et.al.1997; Chittenden 2007; personal observations)	Recorded by SABAP1 2427BA	Recorded by SABAP1 2427BB	Recorded by SABAP1 2428AA	Recorded by SABAP1 2427BA	Recorded by SABAP1 2427BB	Recorded by SABAP1 2428AA	Likelihood of occurrence along the alignment
African Finfoot Podica senegalensis	VU	Sheltered rivers and streams within woodland areas							Low, could be encountered along the larger rivers and dams.
White-backed Night- heron Gorsachius leuconotus	VU	Quiet dams and river margins with dense, overhanging vegetation							Low, could be encountered along the larger rivers and dams.
Kori Bustard Ardeotis kori	v	Open woodland and fallow lands.							Medium, most likely to be encountered in open woodland and fallow lands.
Tawny eagle Aquila rapax	VU	Woodland							Low, could be present at a carcass with vultures.
Black Stork Ciconia nigra	NT	Rivers, large dams, often associated with cliffs.			х	x		х	Medium, could be a visitor to the dams and rivers.



Cape Vulture Gyps coprotheres	VU	Large cliffs for breeding and roosting, open woodland and grassland. Roosts on transmission lines.	x	x				x	Medium, may be a visitor to the area, attracted to carcasses.
Half-collared Kingfisher Alcedo semitorquata	NT	Fast-flowing streams with clear water and well-wooded banks							Medium, could be encountered along the rivers.
Martial Eagle Polemaetus bellicosus	VU	Open grassland and woodland.		x			x		Medium, could be encountered anywhere in the study area, but particularly in open woodland.
Red-billed Oxpecker Buphagus erythrorhynchus	NT	Savanna woodland and bushveld with large ungulates.			x	x	x	x	Medium. No impacts expected from power lines.
Secretarybird Sagittarius serpentarius	NT	Grassland, old lands, open woodland.		x					Medium, especially in fallow lands and open woodland.
White-backed Vulture Gyps africanus	VU	Savanna woodland and bushveld.		x					Medium, could be attracted to carcasses anywhere along the alignment.



Yellow-billed Stork Mycteria ibis	NT	Shorelines of large waterbodies.		Medium, could be present at dams and rivers in the area, depending on water levels.
Ayres Hawk-Eagle Aquila ayresii	NT	Woodland		Low, could be encountered anywhere in the study area, in woodland.
African Marsh-Harrier Circus ranivorus	v	Large wetlands and adjoining grasslands	x	High, could be present in wetlands along the Mokolo and Malmanies Rivers



3. ASSESSMENT OF IMPACTS

Because of their size and prominence, electrical infrastructures constitute an important interface between wildlife and people. Negative interactions between wildlife and electricity structures take many forms, but two common problems in southern Africa are the electrocution of birds (and other animals) and birds colliding with power lines. Other problems are: electrical faults caused by bird excreta when roosting or breeding on electricity infrastructure; and disturbance and habitat destruction during the construction and maintenance activities associated with electrical infrastructure.

3.1 Loss of breeding, foraging and roosting habitat through habitat transformation.

During the construction phase and maintenance of power lines and substations, some habitat destruction and alteration inevitably takes place. This happens with the construction of access roads, and the clearing of servitudes. These activities have an impact on birds breeding, foraging and roosting in or in close proximity of the site, through the modification of habitat.

The habitat surrounding the proposed power line comprises mostly undisturbed woodland, with limited existing impacts which consist mostly of a number of reticulation lines, fences and dirt roads. As a result it supports a number of power line sensitive species, particularly raptor species currently Red Data listed (see TABLE 2). The impact of the proposed line on the natural habitat (and therefore potentially on power line sensitive Red Data species) would be limited if it is placed next to existing linear impacts, particularly dirt roads, as is the case with alternatives 1 and 2. Alternative 3 and 4 have a few sections where it deviates from existing dirt roads, which will have a bigger impact on the natural woodland vegetation. If alternative 2 is selected, the impact of the clearing of vegetation for the new line would be slightly less than if the line was partially constructed in undisturbed woodland, as would be the case with alternatives 3 and 4, and to a much lesser extent with alternative 1. The impact on smaller, non-Red Data species that are potentially breeding in the area that will be cleared for the new power line will be local in extent, in that it will not affect regional or national populations in any significant way.

The proposed construction of the new power line should have a **LOW** habitat transformation impact from an avifaunal perspective, especially if **alternative 2** is used. If **alternative 1** is used, the impact would be **MEDIUM-LOW**, as it would involve more extensive clearing of undisturbed woodland. With **alternative 3 and 4**, the impact will be **MEDIUM**, as it would require more extensive clearing of woodland than the other .

3.3 Collisions with the proposed power line.

The majority of species listed in Table 2 are all vulnerable to collisions with power lines. In the case of water-associated birds such as the Black Stork, Yellow-billed Stork and African Marsh-Harrier the drainage lines, and specifically the pools in the larger rivers such as the Mokolo and Malmanies, which are crossed by the proposed alignments, might potentially hold some attraction to these species. The new line will cross these drainage lines and might be a potential cause of collisions for these species and other, non-Red Data species such as certain species of ducks, waders and possibly Hamerkops *Scopus umbretta*. Species such as Kori Bustard and Secretarybird are known to be vulnerable to collisions with power lines, and the risk would be higher where the proposed alignments cross open habitat, especially old lands. The collision risk should therefore be regarded as **MEDIUM-HIGH** along some sections of the proposed power line alignments (see APPENDIX B).

3.4 Electrocutions on the proposed 132kV power line.



A mono-pole steel pole will be used for the new 132kV line. Clearance between phases on the same side of the pole structure is normally around 2.2m for this type of design, and the clearance on strain structures is 1.8m. This clearance should be sufficient to prevent phase – phase electrocutions of birds on the towers. The length of the stand-off insulators is likely to be about 1.5 metres. This is relevant as birds such as vultures are able to touch both the conductor and the earthed pole simultaneously potentially resulting in a phase – earth electrocution. This is particularly likely when more than one bird sits on the same pole.

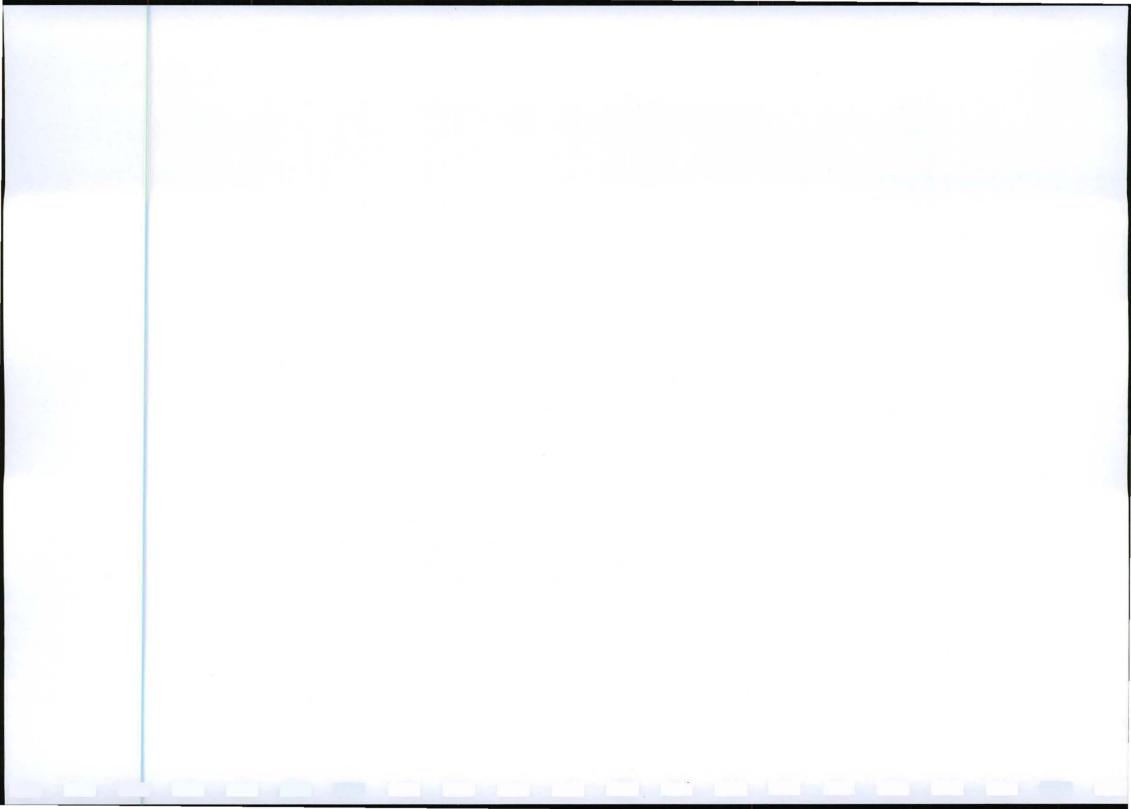
Although not recorded in large numbers, it is likely that White-backed and Cape Vultures forage in the area (Cape Vultures have been recorded in 2427BA by SABAP1, and White-backed Vulture were recorded in 2427BB by SABAP1 and during the helicopter fly-over). There are cattle and game in the area surrounding area, and should a carcass be available to the birds, they might attempt to roost on the poles. The risk of phase-earth electrocution is therefore evaluated to be **MEDIUM**. It should be mentioned that the pole design holds no inherent electrocution risk for other large **non-gregarious** species such as eagles, as they almost never perch together in large numbers next to each other.

4 CONCLUSIONS

The construction of the proposed 132kV Bulge-Dorset power line should pose a limited threat to the birds. The power line poses a **medium-high** collision risk, mostly to water associated species, and those species attracted to open habitats, particularly old lands. The line will pose a **medium** electrocution risk, in particular to vultures. The proposed construction of the new power line should have a **low** habitat transformation impact from an avifaunal perspective, especially if **alternative 2** is used. If **alternative 1** is used, the impact would be **medium-low**, as it would involve more extensive clearing of undisturbed woodland. With **alternative 3 and 4**, the impact will be **medium**, as it would require more extensive clearing of woodland than the other.

5 RECOMMENDATIONS

- Power line: The span that crosses drainage lines and old lands should be marked with Bird Flight Diverters on the earth wire of the line, five metres apart, alternating black and white (see <u>APPENDIX</u> B Sensitivity map for the area to be marked with Bird Flight Diverters). <u>APPENDIX</u> C indicates the preferred Bird Flight Diverters to be used.
- Poles: The poles should be fitted with bird perches on top of the poles to draw birds, particularly vultures, away from the potentially risky insulators (see Figure 3 below).



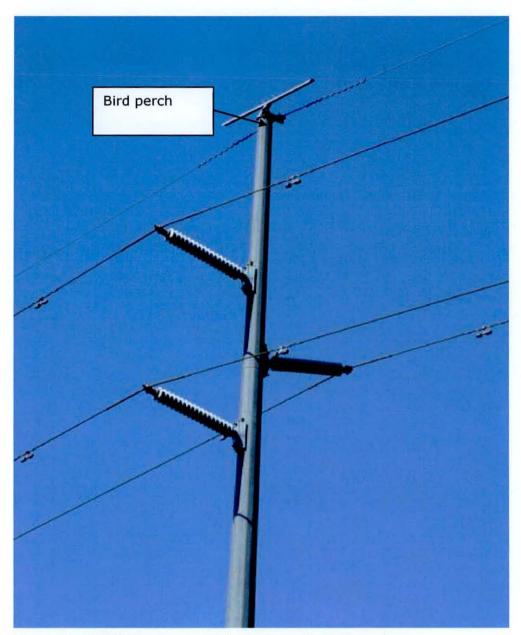
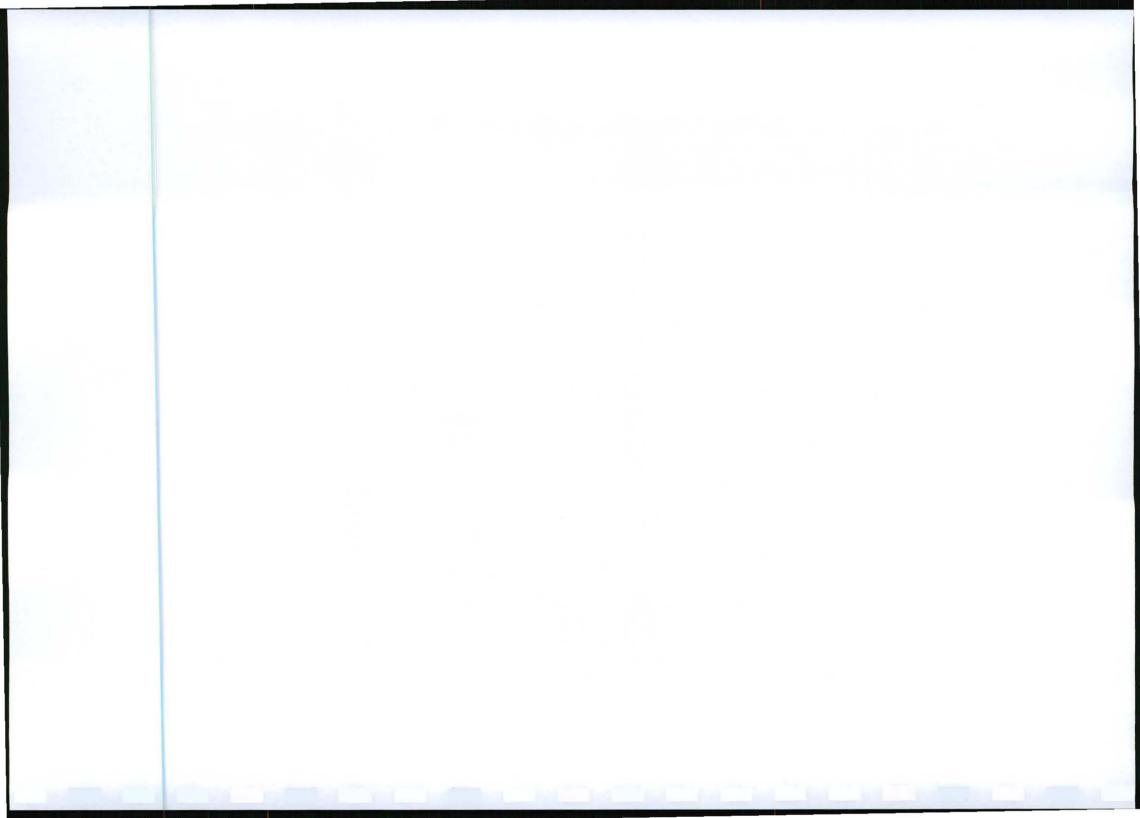


Figure 3: 132kV Steel mono-pole design with bird perch



Bird Impact Assessment Study: Bulge-Dorset 132kV

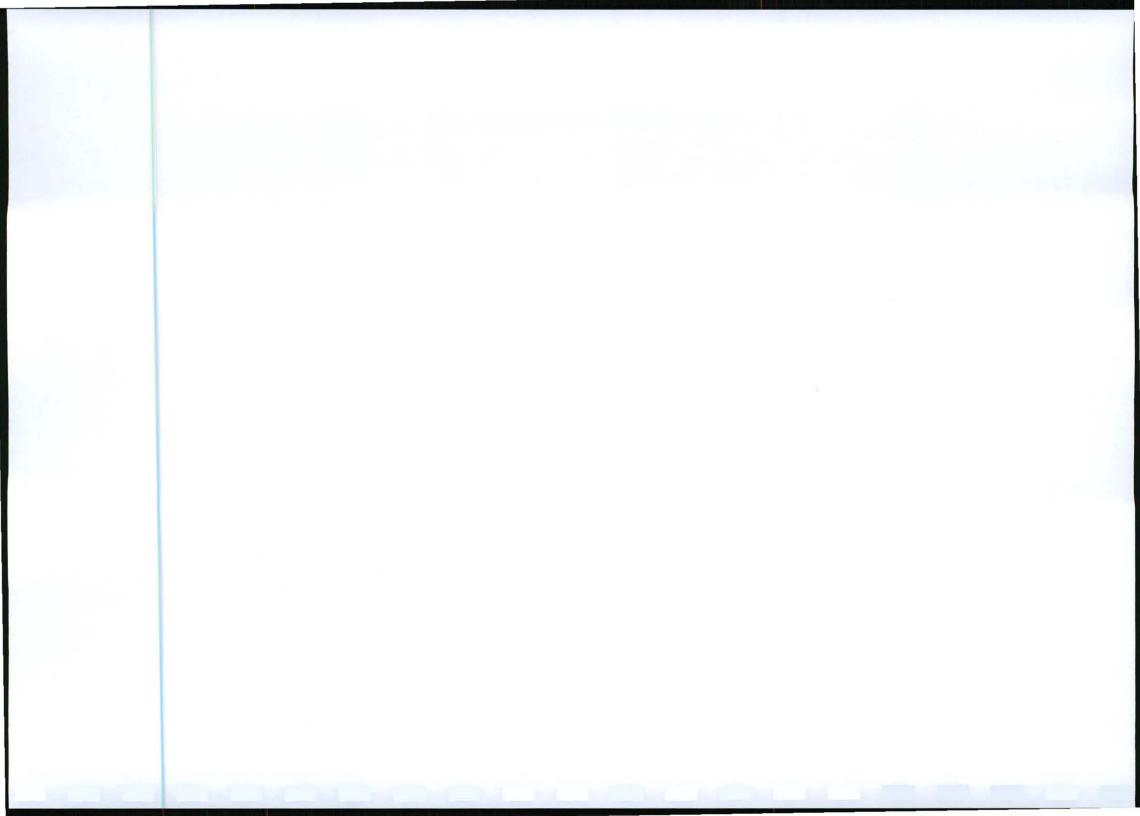
6 REFERENCES

BARNES, K.N. (ed.) 2000. The Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland. BirdLife South Africa, Johannesburg.

HARRISON, J.A., ALLAN, D.G., UNDERHILL, L.G., HERREMANS, M., TREE, A.J., PARKER, V & BROWN, C.J. (eds). 1997. The atlas of southern African birds. Vol 1 & 2. BirdLife South Africa, Johannesburg.

HOCKEY P.A.R., DEAN W.R.J., AND RYAN P.G. 2005. Robert's Birds of Southern Africa, seventh edition. Trustees of the John Voelcker Bird Book Fund, Cape Town.

Southern African Bird Atlas Project 2. http://sabap2.adu.org.za



Appendix A Bird Habitat



Figure 1: Typical woodland along the proposed alignments



Figure 2: Agricultural clearings reverting to grassland (old lands)





Figure 3: A dam and associated wetland



Figure 4: Irrigated crops along the Mokolo River

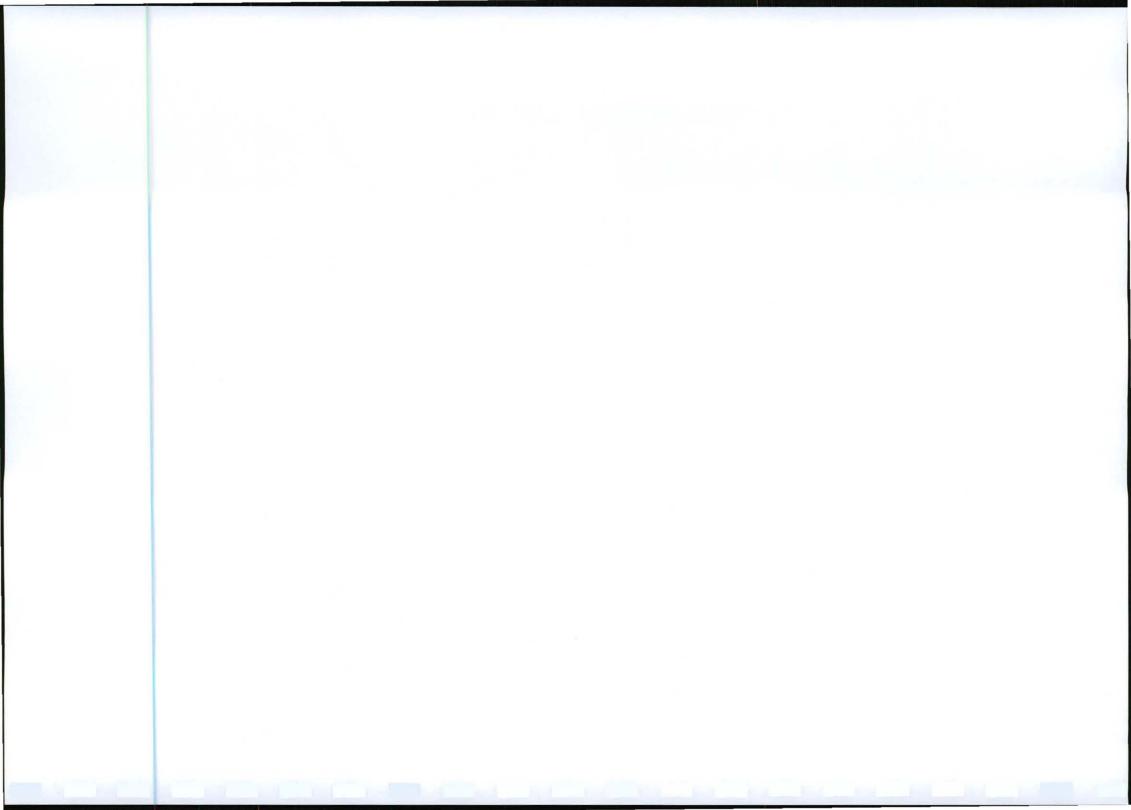
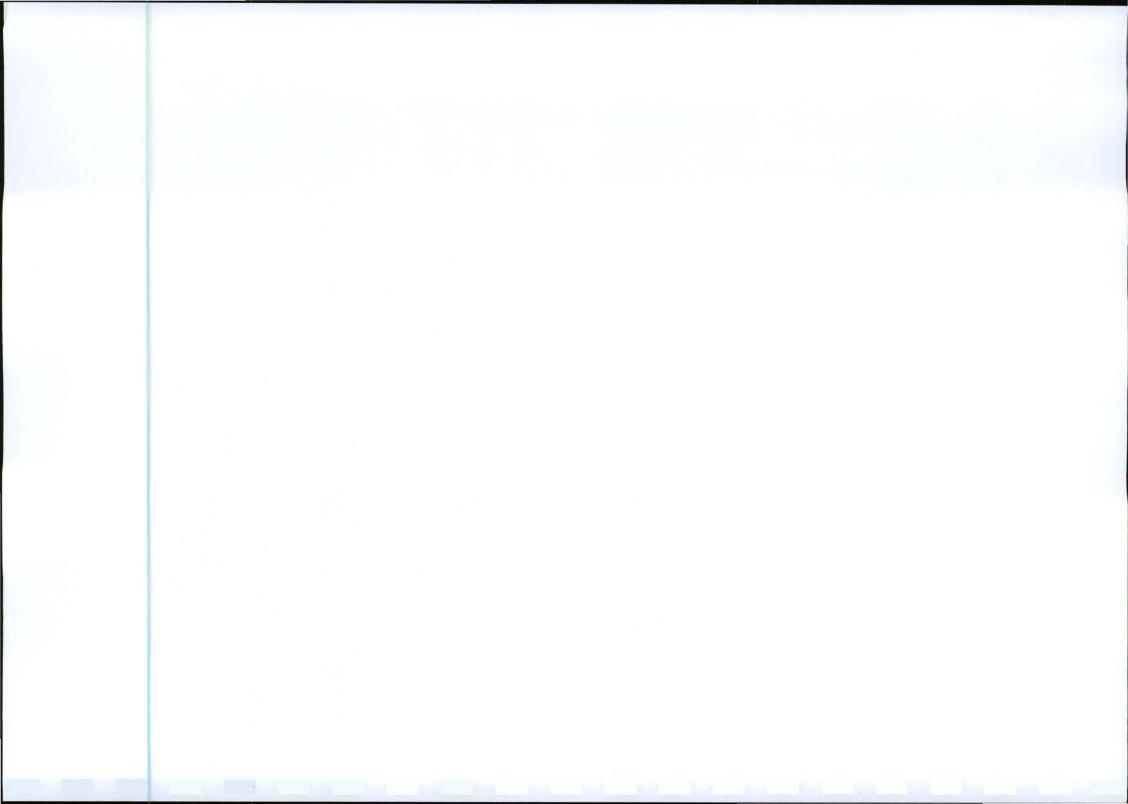




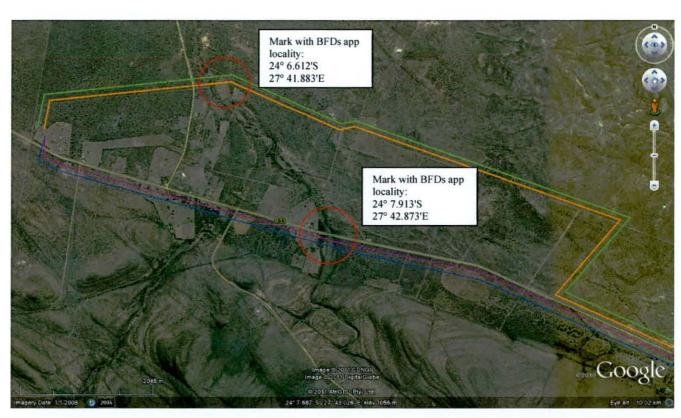
Figure 5: A wetland in the Malmanies River

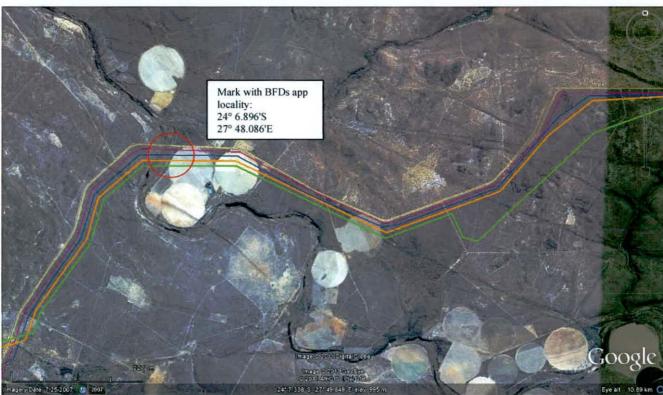


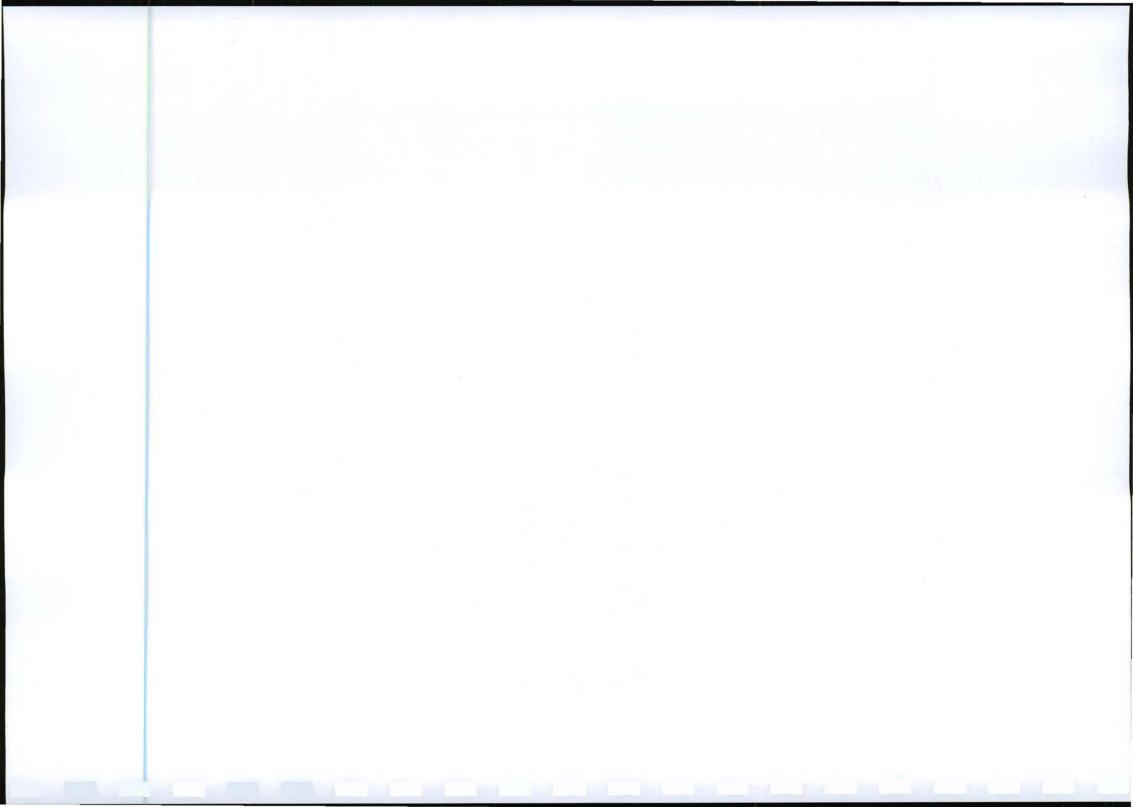
Figure 6: Natural woodland makes up the majority of habitat in the study area



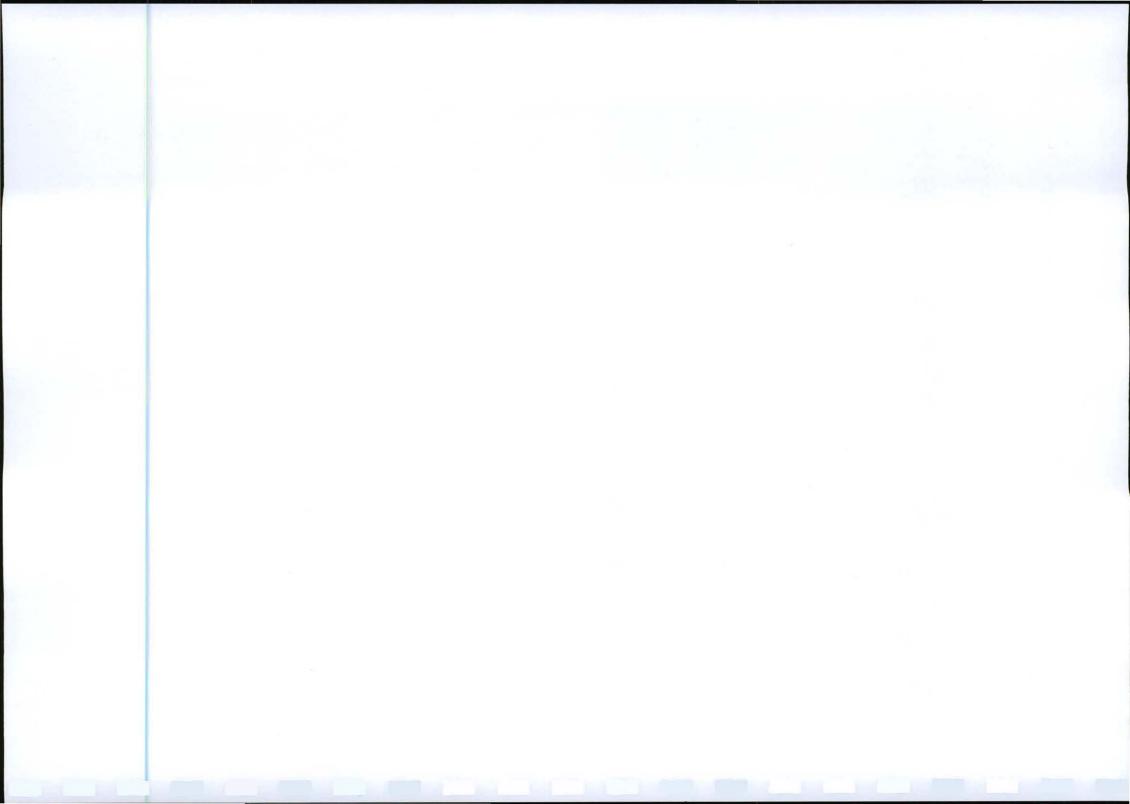
APPENDIX B SENSITIVITY MAP





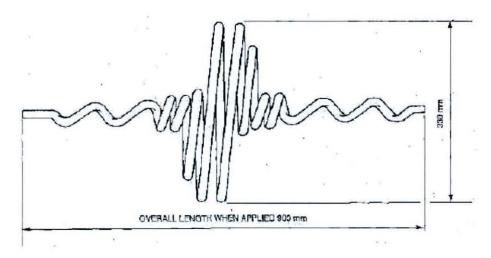






PLP - The connection you can count on

Double Loop Bird Flight Diverter



Material Used: Manufactured from rigid solid high impact polyvinyl chloride, possessing excellent chemical and strength properties and which will retain good physical characteristics within the range of extreme temperatures. Outdoor aging tests indicate that the material does not deteriorate in function or appearance from the effects of severe weather conditions. Industrial fumes and salt water cannot seriously degrade the properties of rigid PVC.

Colour: White or Black

Lay Direction: Bird Flight Diverters are supplied right hand lay for both right hand and left hand lay bare conductors and insulated cables.

CATALOGUE NO.

CONDUCTOR/ E/WIRE DIA. RANGE

BFD 09 14/LD2*

9 mm - 14 mm

*Add B or W to denote colour

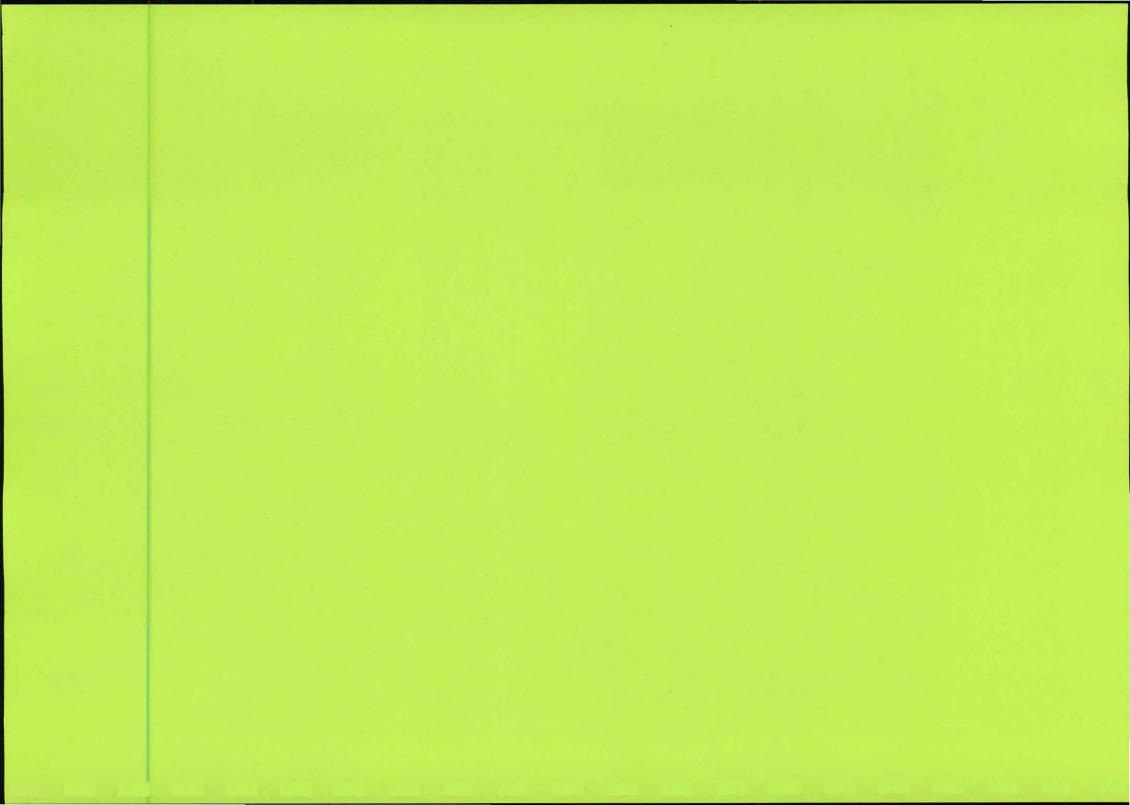
INDEX

E-4





Appendix E1: Public Participation Information Proof of site notices



Photos of onsite notices



a.



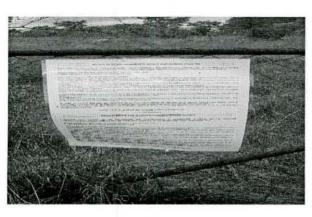
d.



b.

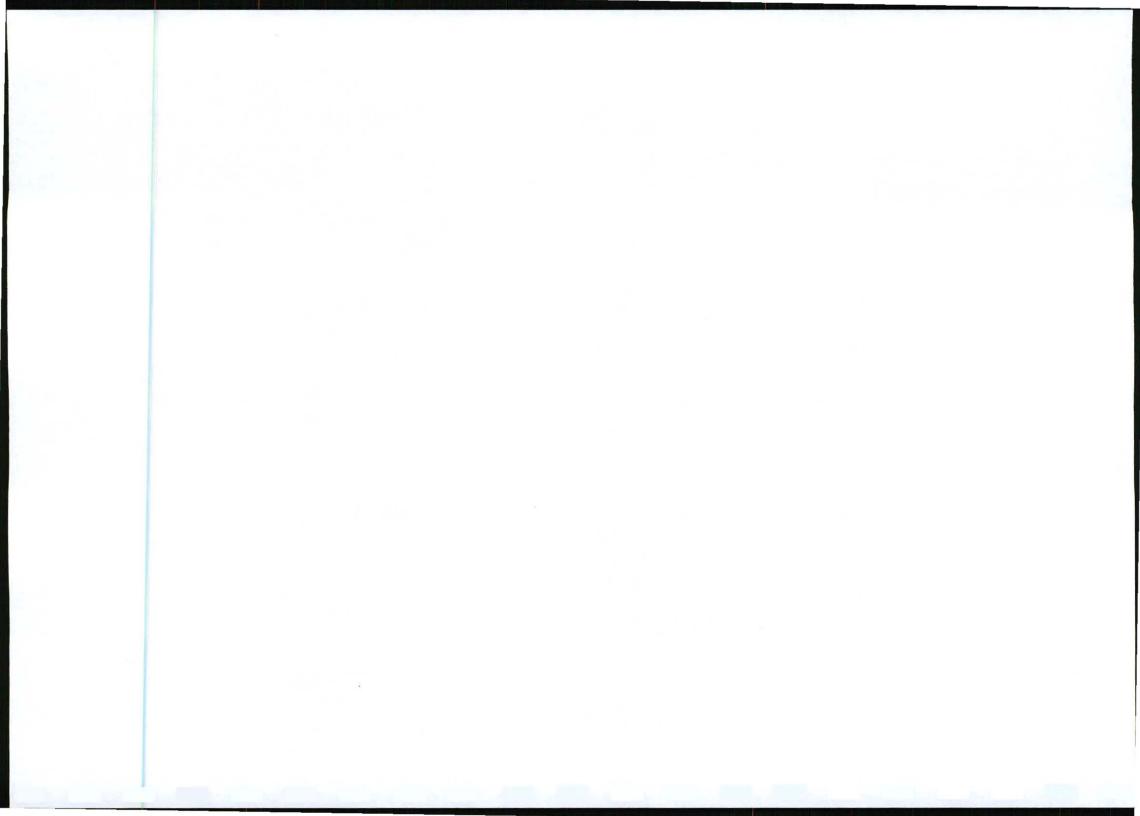


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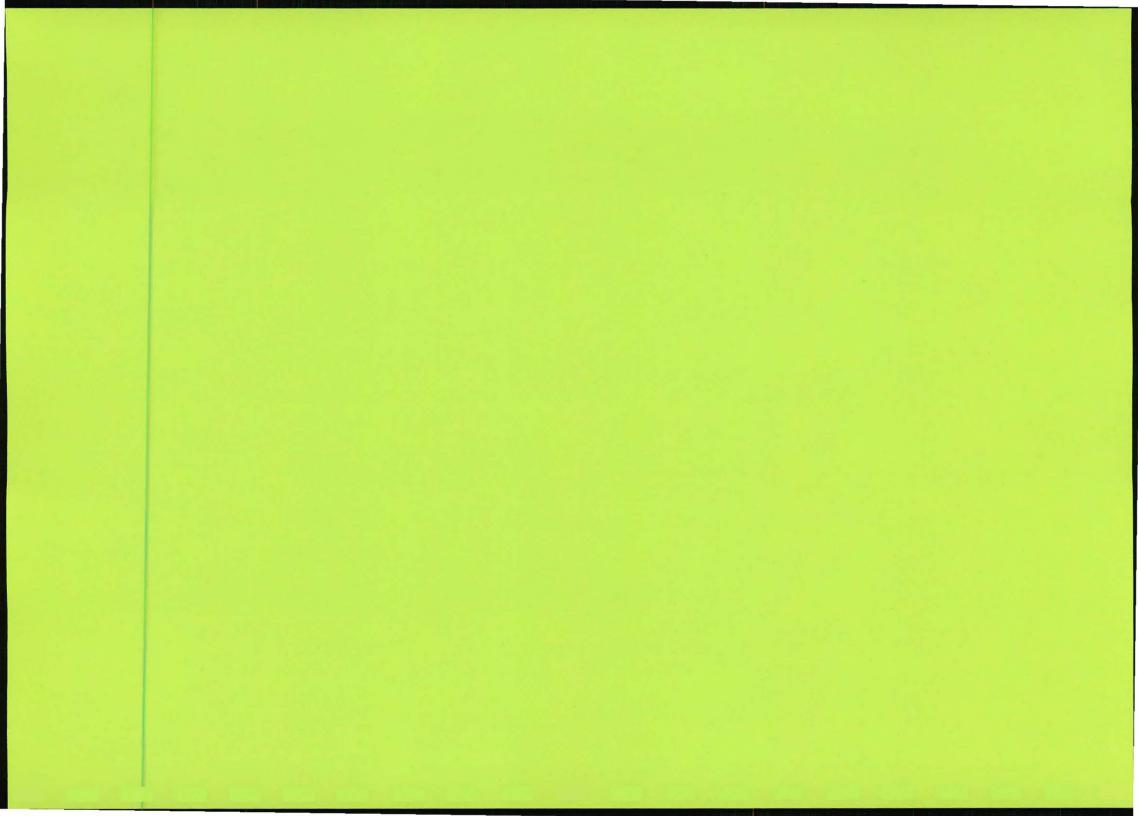


C

- a) Placement of onsite notice along the route on the Bulgerivier road
- b) Onsite notice along the route of the powerline corridor at the Bulgerivier road
- c) Close-up of onsite notice
- d) Onsite notice at the Bulgerivier shop along the route
- e) Onsite notice at Zeederbergs on the R517



Appendix E2: Public Participation Information Proof of newspaper ads



Bevestig asb álle fakse/e-pos! (Regno 05/38385/06)

Beeld Posbus P.O. Box 333, Huckland Park, 2006-111411.

Telefoon/Telephone 011-713-9000
Faks/Fax 086-632-6499
Telegrafiese adres/Telegraphic address "Beeld"
Kingsway 69 K

AAN BELANGHEBBENDES TO WHOM IT MAY CONCERN

Ons verklaar dat die aangehegte advertensie We hereby certify that the attached advertisement

ESKOM BULGE-DOR

verskyn het in Beeld van duly appeared in Beeld of ..

10/11/2010

NASIONALE MEDIA BEPERK

Bestuurder, Advertensie-afdeling Manager, Advertising Department

Advertensiebewys
Ons sertifiseer hiermee dat
bygaande advertensie behoorlik verskyn het in

Beeld

AURELIA BEUKES
Advertensieverteenwoordiger Johannesburg

Eienaars: Nasionale Media Beperk DIREKTEURE/DIRECTORS

Ton Vosloo (Uitvoerende Voorsitter/Executive Chairman)

E Dommisse, DD Hamman, JF Malherbe, FJ Wiese, SS de Swardt, WJ Weppener, JJM van Zyl, HG Raubenheimer, JH van Deventer (Uitvoerende Hoof: Koerante/Chief Executive: Newspapers)



Silver Lakes X4, Erf 1618 KENNISGEWING KRAGTENS ARTIKEL 28 VAN DIE ORDONNANSIE OP DORPSBEPLANNING EN DORPE, 1986 (ORDONNANSIE 15.

VAN 1986) Ek, Willem Georg Groenewald, namens die Kungwini Plaaslika Munislpaliteit synde die geregistreerde grondelenaar van 'n gedeelte van Hillsidestraat, Silver Lakes Uitbreiding 4 (±112m²), sangrensend san Erf 1618, Silver Lakes Uitbreiding 4, gee hiermee Ingevolge artikel 28 van die Ordonnansie op Dorpsbeplanning en-Dorpe, 1986 (Ordonnansie 15 van 1986) kennis det ek by die Kungwini Plaaslike Munisipaliteit aansoek gedoen het vir die wysiging van die Peri-Urban Dorpsbe-planningsterne 1975 Advertie Japan stan-toor van die Uitvoerende Direkteur. Ontwikkelingsbeplanning & Stedelike Bestuur, Kamer 8100, 8ste Vioer, A-Blok, Metro sentrum, Lovedaystraat 158, Braamfon-tein, vir -n tydperk van 28 dae vanaf 10 November 2010, Besware of vertoë ten opsigte van die aansoek moet binne ; tydperk van 28 dae vanaf 10 Novemi 2010 skriftelik by of tot die Stad va Johannesburg, by bostaande adi Posbus 30733 Braamfontein 201 ingedien of gerig word. Adres van Agent: Alida Stevn Stads en Streekt planners BK Posbus 1956, Florida, 1710

WILLOWGLEN LH, **DEWE 263** TSHWANE WYS SINGSKEMA, 2008 KENNINSGEWING VALAANSOEK OM AANSOEK OM SBEPLANNING-WYSIGING VAN DOR SKEMA INGEVOLGE LATIKEL 56 VAN DIE ORDONNANSIE OP ORPSBEPLANNING EN DORPE, 1986 (C. DONNANSIE 15

Tel: 011-955-4450

12-3A NOV 10,17(AS)189

VAN 1986) VAN 1986)
One, SJN Development Planning Consultants, synde die genagtigde agent van die eienaars van Holdings die hiermee Ingevolge artikel 56 van die eidennansie op Dorpsbeplanning en Limpe, 1986 (Ordonnansie 15 van 1986), ke his dat on by die Stad Tshwane sanso siging van die skema, 2006 in gedoen het om die wywane dorpsbeplanning-erk deur diehersonering van die elendo op die noord w Avenue Avenu lowglen. Die b soneer van Le ne hierbo beskryf, geles itelike hoek van Libertas en Furrow Road in Witencemde elendom te herbou- na -Spesiaal vir 'n werking van die aansoek vulstasie. Die sal wees om 'n ulstasie, wasvakke, outomatiese tellerm lien, die kantoor en geriefswinkel op kantoor en die elendom toe te laat. Die riefswinkel saam oorskry nie 250m². Best derhede van die aansoe lê ter insae ged ende gewone kantoorur by die kantoor van die Strategiese Uitvoerende Die teur: Stadsbeplanning, derhede van die aansoek ende gewone kantoorure : Ontwikkeling en treeksdienste , Derde iunitoria, tvv verimeu Itstrate, Pretoria, vir in len- en Van Der 1 e vanaf 10 November tydeperk van 28 | 2010. Besware tell of vertoe ten opsigte van die dorp moet kriftelik by of tot die Strategiese Uitvot inde Direkteur by bovermelde kantoor in edien of aan hom/ haar by Posbus 324. Pretoria, 0001, binne 'n tydperk van 25 ae vanaf 10 November 2010 ingediet ofgerig word. Gemagtigde agent: Adres: 184 Thomson S. sat, Colbyn. Posadres: Posbus: 3965 Gersfonteis 0042. Tel (012) 342 1724 HOEWE 263 HOEWE 26 SUNI 185 Garsfontein,

TEDDERFIELD LH, HOEWE 56 KENNISGEWING

KENNISGEWING VAN AANSOEK OM ON-DERVERDELING INGEVOLGE ARTIKEL 6(1)(b) VAN ORDONNANSÆ 20 VAN 1986 (VERDELING VAN GROND OR-

DONNANSIEI. Ons, MM Town Planning Services, synde die gemagtigde agent van die geregistreer-de eienaars van HOEWE 56 TEDDERFIELD AH gee, ingevolge artikel 6(1)(b) van die Ordonnansie op VERDELING VAN GROND (20 van 1986), kennis dat ons by die MID-VAAL PLAASLIKE MUNISIPALITEIT aansoek gedoen het om genoemde eiendom in TWEE gedeches TE VERDEEL Besonderhede van die aansoek lê ter insae gedurende gewone kantoor ura by die kantoor van gerig word.

Adres van gemagtigde agent: Ella du Plessis Town & Regional Planners Posbus 1637, GROENKLOOF, 0027 Herbert Bakerstraat 26, Groenkloof; Telefoon: (012) 346 3518/083 457 5990; Ref No H187 H187/NOV 3,10(EDP)185

DIS / Advertensieborde

ESKOM BULGE-DORSET

Kennisgewing
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DORSET NOV 11(T)186

VORNA VALLEY UITB. 21, ERF 2017 HALFWAY HOUSE EN CLAYVILLE WYSIGINGSKEMA

KENNISGEWING VAN 2010 Kennisgewing van aansoek om wysiging van Dorpsbeplanningskema ingevolge artikel 56(1)(b)(i) van die Ordonnansie op Dorpsbeplanning en Dorpe, 1986 (Ordonnansie 15 van 1986). Ons, Web Consulting, synde die gemagtigde agent van die elenaar van Erf 2017 Vorna Valley Uitbreiding 21, geleë op Howick Singel Vorna Valley Uitbreiding 21, (Waterval Park) gee hiermee ingevolge Artikel 56 van die Ordonnansie op Dorpsbeplanning en Dorpe, 1986, kennis det ons by die Stad van Johannesburg Metropolitinarisa Munisinalitali panenali addan-

more servante gebruike, besigheidsge-boue, which is en verversingsplekke (op-voorwaarde of die bruto vloerruimte van geboue op Erwo 1818 en 2917 nie 5 544m² sal porsko pie, dat die totale bruto vloerruimte van winkels op Erwe 2914, 2915, 2916 en 23 7 gekombineerd nie 4 000m² sal oorskry ie, en 'n hoogte van vier verdiepings). Be krywing van grond waarop die goedge, birde dorp gelee is: Gedeelte 228 van die plat. Hartebeest-fontein 324 JR en die Restan van Hoewe 237 Montana Landbouhoewel Jitbreiding 2. Die voorgestelde dorp is get direk suid van Zambesi-rylaan, tussen Phose en Envan Zambesi-rylaan, tussen Phillis en Enkeldoornlaan, Montana Landboo X2. Pretoria:

MONTANA NOV 10,17(M) 187

JUKSKEI VIEW X74

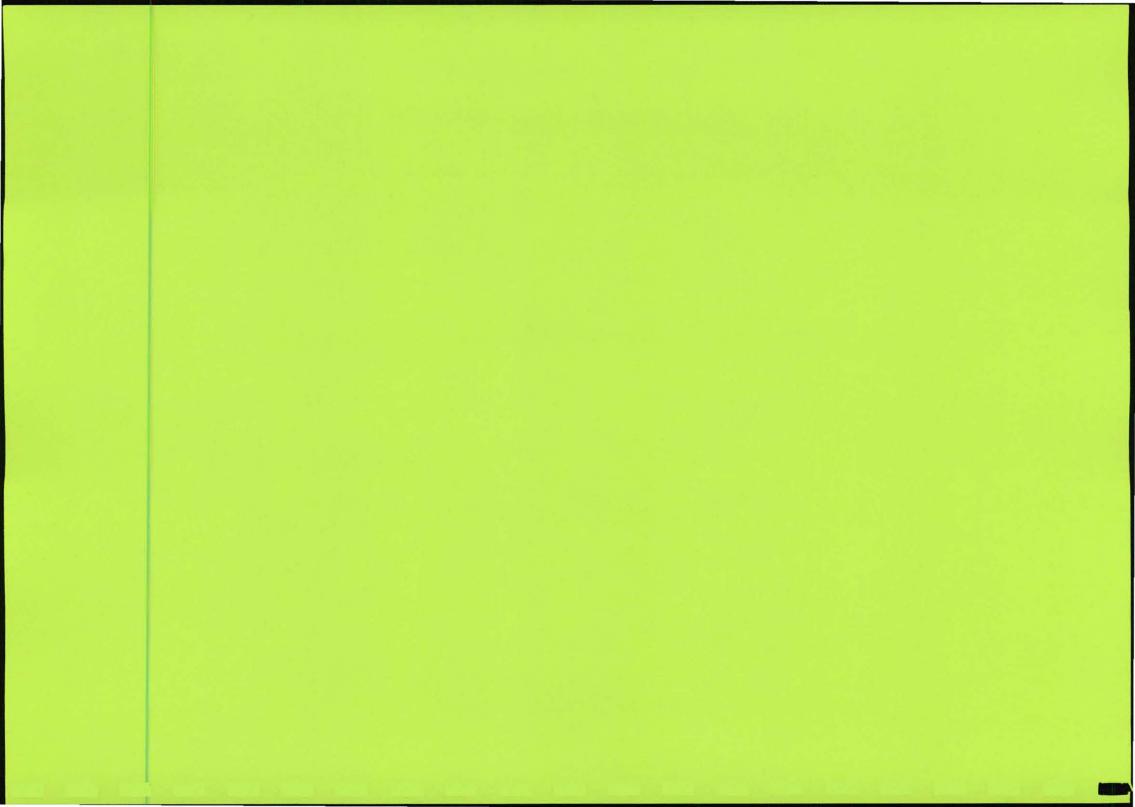
BYLAE 11 (REGULASIE KENNISGEWING VAN 'N AANSDEK DIE STIGTING VAN 'N DORP: VOORG STELDE DORP JUKSKEI VIEW UITBR Die Stadsraad van Johannesburg gee mee ingavolge Artikel 96(3) saamgelee met Artikel 69(6)(a) van die Ordonnans op Dorpsbeplanning en Dorps, 1986 (O donnansie 15 van 1986), kennis dat 'n aansoek om die dorp in die bylae hierby genoem te stig deur hom ontvang is. Be sonderhede van die aansoek lê ter insae gedurende gewone kantoorure by die Ui Voerende Direkteur, Uniwikkenner 8100; Etning en Stedelike Bestuur, Kamer 8100; Matropolitaanse Senvoerende Direkteur: Ontwikkelingsbeplar Bate Vicer, A Blok, Metropolitaanse Sentrum) Lovedaystraat 158, Braamfontein v 'n tydperk van 28 dae vanal 10 Novembe 2010 Beaware teen of vertoe ten opsigte van die aansoek moet binne 'n tydperk v 28 dae vanaf 10 November 2010 skrifteli en in tweevoud by of tot die Uitvoerend Direkteur, by bovermelde adres of by Pe bus 30733, Braamfontein, 2017 Ingedier of gerig word, BYLAE

Naam van dorp: Voorgestelde Jukskel View Uitor 74. Volle nearn van aansoe Steve Jaspan en Mederwerkers named Witwatersrand Estates Beperk Asntal in voorgestelde dorp: 30 Erwe 1 tot 2 pesoneer. Speciaal met insluiting van sig-Done, Kantore n noter, kon winkels/restaurante, plekke van ond en aanverwante gebruike tot die bo noemde. Erwe 26 tot 27 gesoneer siaal vir toegangsdoeleindes. Erw 28 tot 30 gesoneer Openbare Oop Ruin Reste-an die van voorskrywing van grond waarop dorg staan te word: in Gedeelte van i rende Gedeelte van Gedeelte Plaas Waterval Nr. 5-1.R. Liggi gestelde dorp: Die terrein is die direk suid van Allandaleweg aan de westekant van die Nt-motorweg tus in Johannes van die N1-motorweg tu-burg en Pretoria.

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EC Die vol op dor aar in t SON gedi toor rekt Stre Vloe strat vana die e wing van t 28 da tum kenn turior rende keling Preto Strate like B BYLA Naam 158 Vd Town Earth! Aantal 2 Erwe 11610 SKYWI staan t . die pla van voi vorm d gestek die wes ABU CIB bekénd SFP Tol Postius Melkstri Tel: 012 EQUES

Appendix E3: Public Participation Information Written notices to IAPs





PO Box 36593 MENLOPARK 0102 Tel: 012 362 7179 082 568 6344 Fax: 086 675 4026 riap@peopletexture.net

5 November 2010

For attention: Interested and Affected Party

(Fax Number: email)

PROPOSED BULGE-DORSET 132kV LINE

Notification of an Environmental Impact Assessment process: Request for input.

Background

Texture Environmental Consultants has been appointed by Eskom Distribution Northern Region (the applicant) to lodge an application for environmental authorisation with the National Department of Environmental Affairs for the construction of the following project:

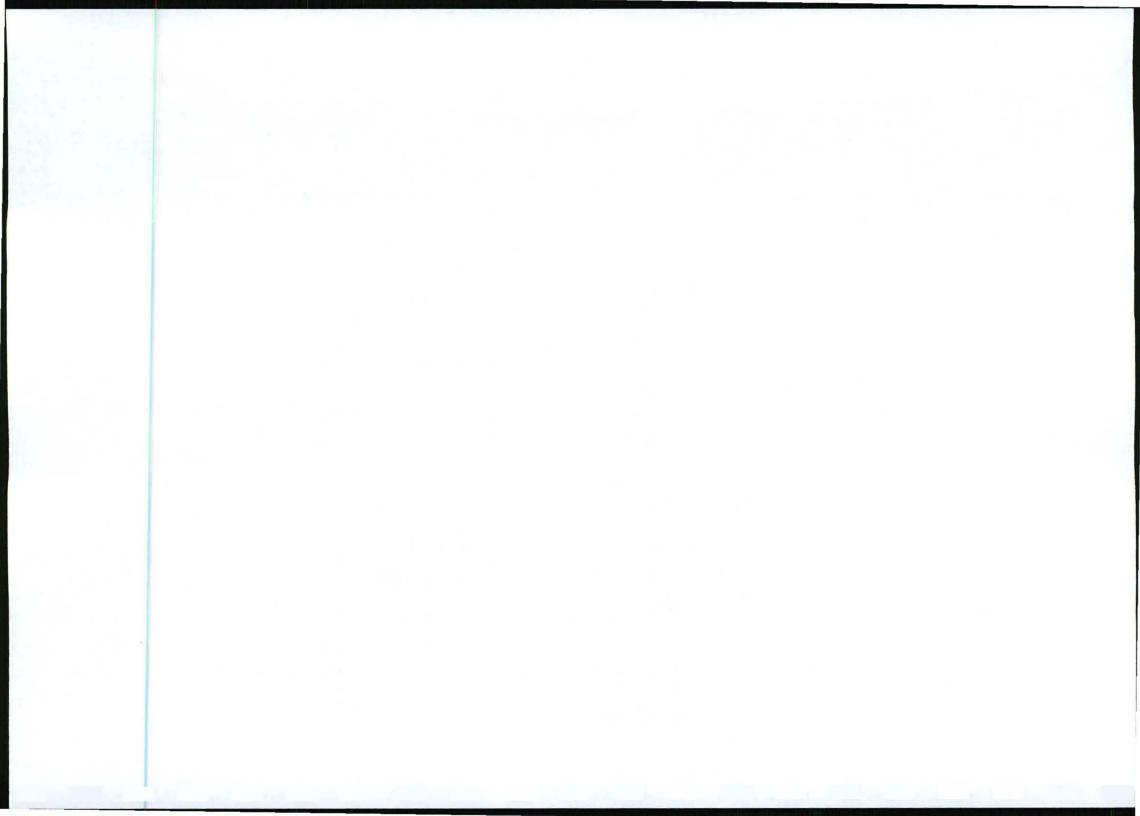
Project Description

This new project consists of the following:

- Construct a 132kV line from the new Bulge rivier substation to the existing Dorset substation.
- Construct an access/ construction road for the new 132kV line.
- Erect a construction camp.

Activities applied for to be authorised

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010 is submitted. The Environmental Impact Assessment Regulations were published on 18 June 2010 in Government Notice No. R.543. Relevant to this project is the activities that are listed in Listing Notices 1 and 3. A Basic Assessment (BA) is the procedure designed for Listing Notices 1 and 3. A BA therefore has to be conducted and relevant to this project is the following listed activities:



Relevant notice:	Activity No:	Description of each listed activity as per project description:
R 544 of 18 June 2010	10	The construction of facilities or infrastructure for the distribution of electricity outside urban areas with a capacity of 132kV.
R 544 of 18 June 2010	23	The transformation of undeveloped land to institutional use, outside an urban area, where the total area to be transformed is bigger than one hectare for the purpose of a construction camp.
R 544 of 18 June 2010	24	The transformation of land bigger than 1000 square metres in size, to institutional use, where, such land is zoned open space, conservation or had an equivalent zoning. (activity to be confirmed)
R 546 of 18 June 2010	4	The construction of an access and construction road wider than 4 meters. (activity to be confirmed)
R 546 of 18 June 2010	13	The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.

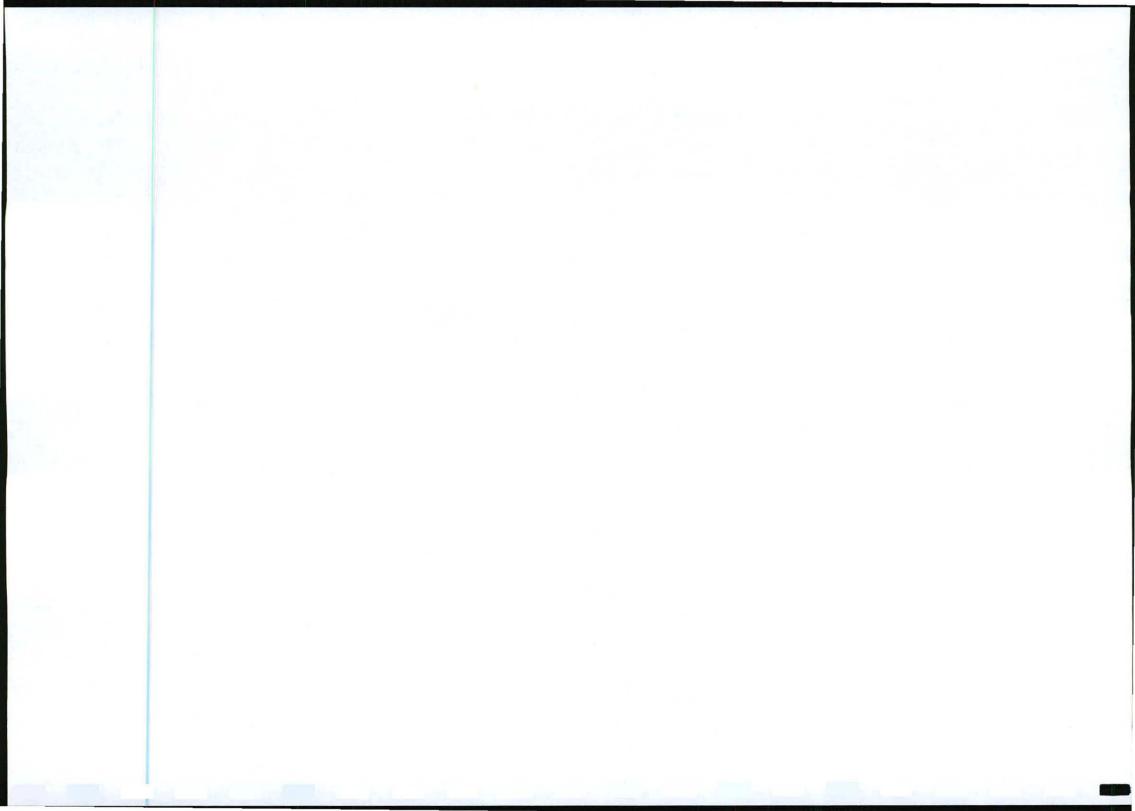
Other activities could be added in the course of the study as specialist studies become available.

Project Locality

Two alternative Routes are being investigated for the proposed 132kV line between the new Bulge substation and the Dorset substation. Detailed property descriptions will be provided in the draft BAR. The project is in the Lephalale Local Municipality in the Limpopo Province. Please find attached a **locality map** indicating the project area.

Request for input

In order to register, as an Interested and Affected Party, any queries, comments and/or concerns should be submitted in writing together with your name, contact information and interest in the matter to Texture (Contact Person: Ria Pretorius) within 40 days of the date of this letter.





PO Box 36593 MENLOPARK 0102 Tel: 012 362 7179 082 568 6344

Fax: 086 675 4026 riap@peopletexture.net

19 January 2011

For attention: Interested and Affected Party

(Fax Number: email)

PROPOSED BULGE-DORSET 132kV LINE

Notification of an Environmental Impact Assessment process: Request for input.

Background

Texture Environmental Consultants has been appointed by Eskom Distribution Northern Region (the applicant) to lodge an application for environmental authorisation with the National Department of Environmental Affairs for the construction of the following project:

Project Description

This new project consists of the following:

- Construct a 132kV line from the new Bulge rivier substation to the existing Dorset substation.
- Construct an access/ construction road for the new 132kV line.
- Erect a construction camp.

Activities applied for to be authorised

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010 is submitted. The Environmental Impact Assessment Regulations were published on 18 June 2010 in Government Notice No. R.543. Relevant to this project is the activities that are listed in Listing Notices 1 and 3. A Basic Assessment (BA) is the procedure designed for Listing Notices 1 and 3. A BA therefore has to be conducted and relevant to this project is the following listed activities:



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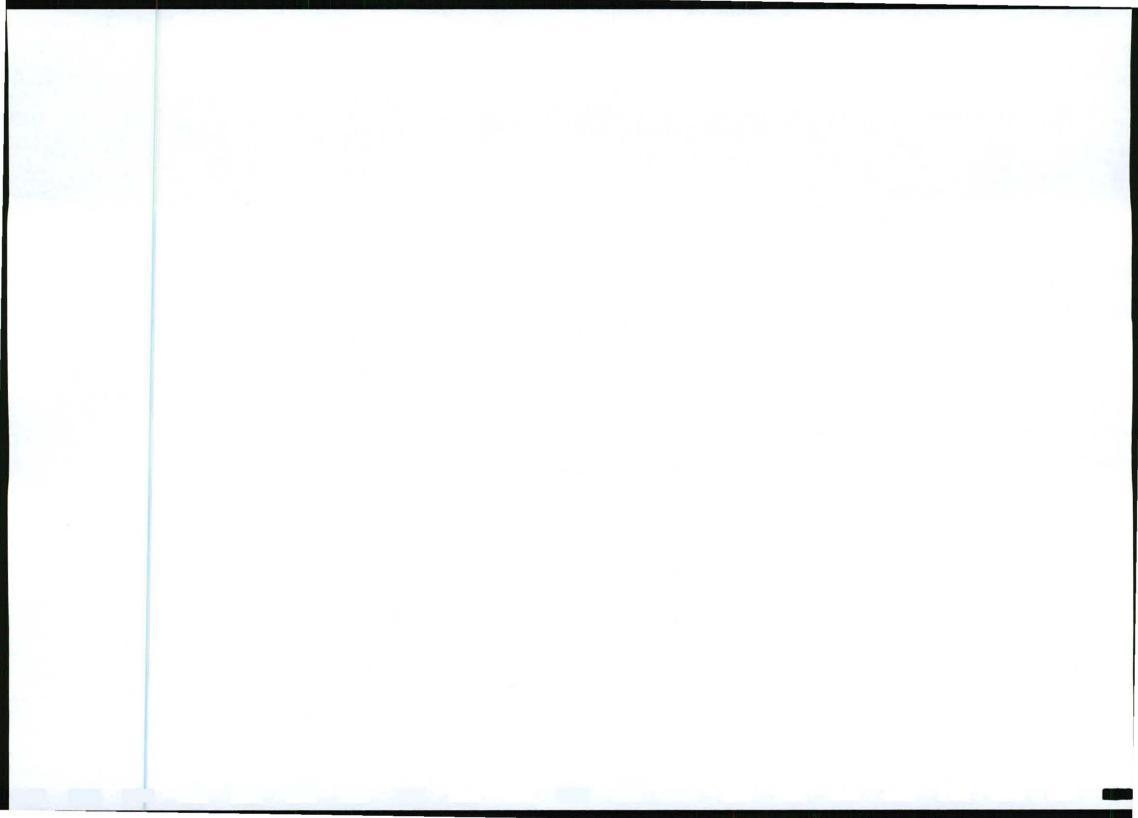
Other activities could be added in the course of the study as specialist studies become available.

Project Locality

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Request for input

In order to register, as an Interested and Affected Party, any queries, comments and/or concerns should be submitted in writing together with your name, contact information and interest in the matter to Texture (Contact Person: Ria Pretorius) within 40 days of the date of this letter.





10 Februarie 2011

Vir Aandag: Geïnteresseerde en geaffekteerde party

Faks Nommer: e-pos

VOORGESTELDE ESKOM BULGE-DORSET 132kV LYN: DEA verw nr: 12/12/20/2094 Kennisgewing van 'n Omgewingsimpak studie Proses: Uitnodiging na 'n inligtingsdag

Agtergrond

Texture Omgewings Konsultante is aangestel deur Eskom Distribusie Noordelike Streek (die applikant) om aansoek in te dien by die Departement van Omgewingsake (DEA) vir goedkeuring in terme van die Nasionale Omgewingsbestuurswet, 1998 (No 107 van 1998) soos aangepas, en die Omgewings Impak Regulasies, 2010 vir die volgende projek:

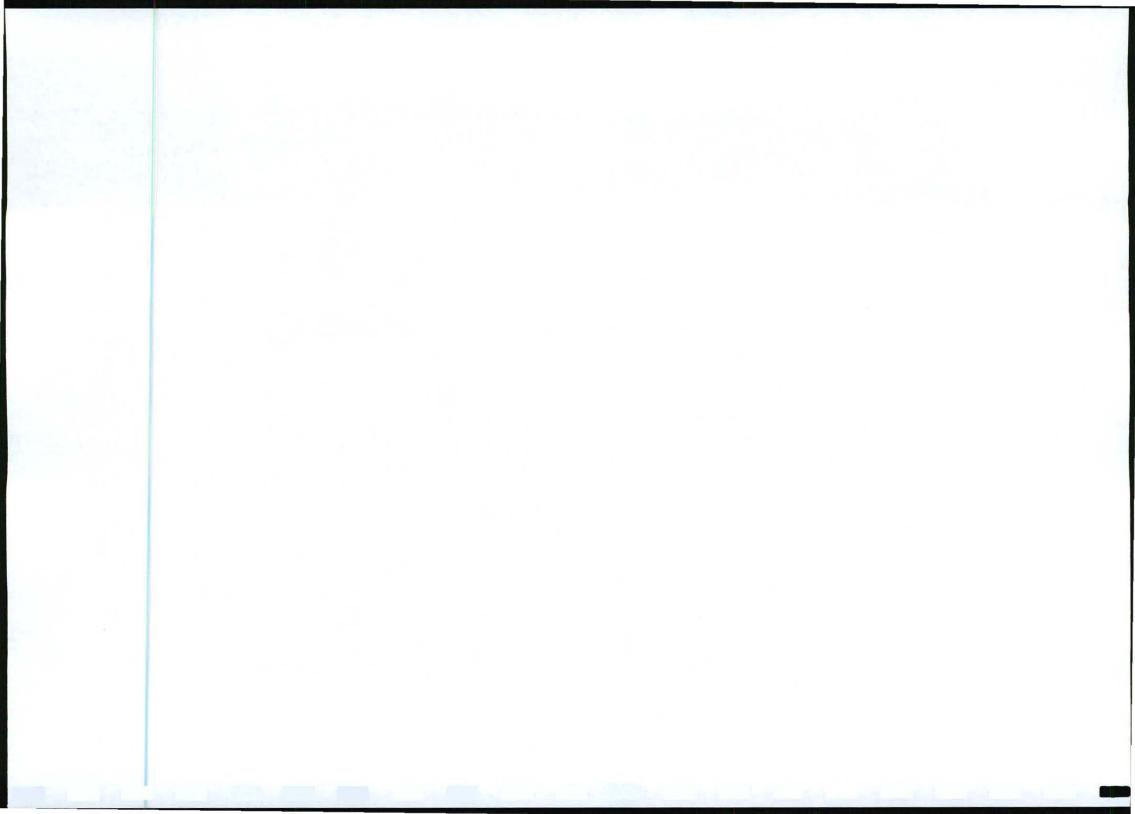
Projek beskrywing

- Rig 'n 132kV lyn op tussen die nuwe Bulge rivier substasie en die Dorset substasie;
- Bou 'n toegangs- en konstruksie pad vir die nuwe 132kV lyn;
- Rig 'n kontruksie kamp op.
- Verkry 'n servituut area van 31 meter breed vir die lyn.

Projekligging

Twee alternatiewe roetes word ondersoek vir die projek. Die voorgestelde roetes is op die plase Bulge Rivier 198KQ Porsies 2,16; Bergsig 202KQ Porsie 4, Hermanusdoorns 600KQ Porsie 1; Hermanusdoorns 205 KQ Porsie 0; Hermanusdoorns 204kQ Porsie 5; Welgevonden 186KQ Porsies 0,1; Groenfontein 207KQ Porsie 3; Keerom 208KQ Porsie 0; Hanover 181KQ Porsies 0,3; Welgevonden 180KQ Porsie 0; Goudfontein 171KQ Porsies 0,1,2; Schuinskloof 175KQ Porsie 1; Rietbokhoek 4KR Re, Porsies 1,2; Zeekoegat 5KR Re, Porsie 1; Steenbokfontein 9KR Re, Porsie 3; Dwarsfontein 51KR Re, Vischgat 64KR Porsie 0; Brakfontein 16KR Re, Porsie 1,2.

Die finale eiendoms beskrywings sal bevestig word in die konsep Basiese Assesserings verslag wat beskikbaar gestel sal word aan alle belange partye. Die projek is in die Lephalale Plaaslike Munisipaliteit in die Limpopo Provinsie.





Aktiwiteite waarvoor aansoek gedoen word vir omgewingsgoedkeuring:

Die Omgewings Impak Regulasies, 2010 is gepubliseer op 18 Junie 2010 en die volgende gelyste aktiwiteite is relevant tot hierdie projek vir 'n Basiese Assesseringsproses:

Relevante kennisgewing:	Aktiwiteit No:	Beskrywing van elke gelyste aktiwiteit soos per die projek beskrywing:
R 544 van 18 Junie 2010	10	Die konstruksie van fasiliteite of infrastruktuur vir die distribusie van elektrisiteit buite 'n stedelike gebied met 'n kapasiteit van 132kV.
R 544 van 18 Junie 2010	11	Die konstruksie van infrastruktuur of strukture van 50 vierkante meter of meer waar die kontruksie binne 'n waterloop of binne 32 meter vanaf 'n waterloop is, gemeet vanaf die kant van die waterloop. (aktiwiteit sal bevestig word)
R 544 van 18 Junie 2010	23	Die transformasie van onontwikkelde grond na institusionele gebruik, buite 'n stedelike gebied, waar die totale gebied wat getransformeer word 150m x 150m is vir die doel van 'n konstruksiekamp.
R 544 van 18 Junie 2010	24	Die transformasie van grond groter as 1000 vierkante meter in grootte, na institusionele gebruik, waar die grond na oop area, bewaring of 'n ekwivalente sonering gesoneer is. (aktiwiteit sal bevestig word)
R 546 van 18 Junie 2010	4	Die konstruksie van 'n toegangs- en konstruksie pad wyer as 4 meter. (aktiwiteit sal bevestig word).
R 546 van 18 Junie 2010	14	Die verwydering van plantegroei op 'n area van 5 hektaar of groter waar 75% of meer van die plantegroei inheems is. (aktiwiteit sal bevestig word)

Ander aktiwiteite mag dalk bygevoeg word na aanleiding van die spesialis studies

Uitnodiging na 'n inligtingsdag

'n Publieke deelname program word gevolg volgens die voorgeskrewe riglyne van DEA. In die algemeen, behels dit die identifisering van geïnteresseerde en geaffekteerde belangegroepe (soos grondeienaars, staatsdepartemente, ens.), die verspreiding van briewe met 'n versoek vir insette, sowel as kennisgewing van die projek op die betrokke terrein asook in die pers.

Bykomend, word 'n inligtingsdag aangebied op 22 Februarie 2011 vanaf 10h00 tot 14h00 ten einde publieke deelname te fasiliteer. Bywoning kan enige tyd vanaf 10h00 tot 14h00 op 22 Februarie 2011 geskied. Lokaal: Biltong go back. Neem die R33 vanaf die SPAR, Vaalwater in die rigting van Lephalale en reis vir 40km tot by die lokaal. Tel nr: 014 755 3694. *Kaart met aanwysings is beskikbaar*.

U WORD VRIENDELIK VERSOEK OM TE BEVESTIG INDIEN U DIE GELEENTHEID KAN BYWOON: TEXTURE, e-pos: riap@peopletexture.net / faks: 086 675 4026.

Om uself te laat registreer as 'n geïnteresseerde en/of geaffekteerde party in die beoogde projek, verskaf asseblief skriftelik, binne 40 dae vanaf die datum van hierdie brief, u kommentaar en volledige kontakbesonderhede aan Texture (kontak persoon: Ria Pretorius).

Beste groete

Ria Pretorius

www.peopletexture.net

Cell: 082 568 6344 | Tel: 012 362 7179 | Fax: 086 675 4026 | Email: riap@peopletexture.net





10 February 2011

For attention :Interested and Affected Party

Fax Number: email

PROPOSED ESKOM BULGE-DORSET 132kV LINE: DEA ref nr: 12/12/20/2094

Notification of an Environmental Impact Assessment Process: Invitation to open day

Background

Texture Environmental Consultants has been appointed by Eskom Distribution Northern Region (the applicant) to lodge an application for environmental authorisation with the National Department of Environmental Affairs (DEA) for the construction of the following project:

Project Description

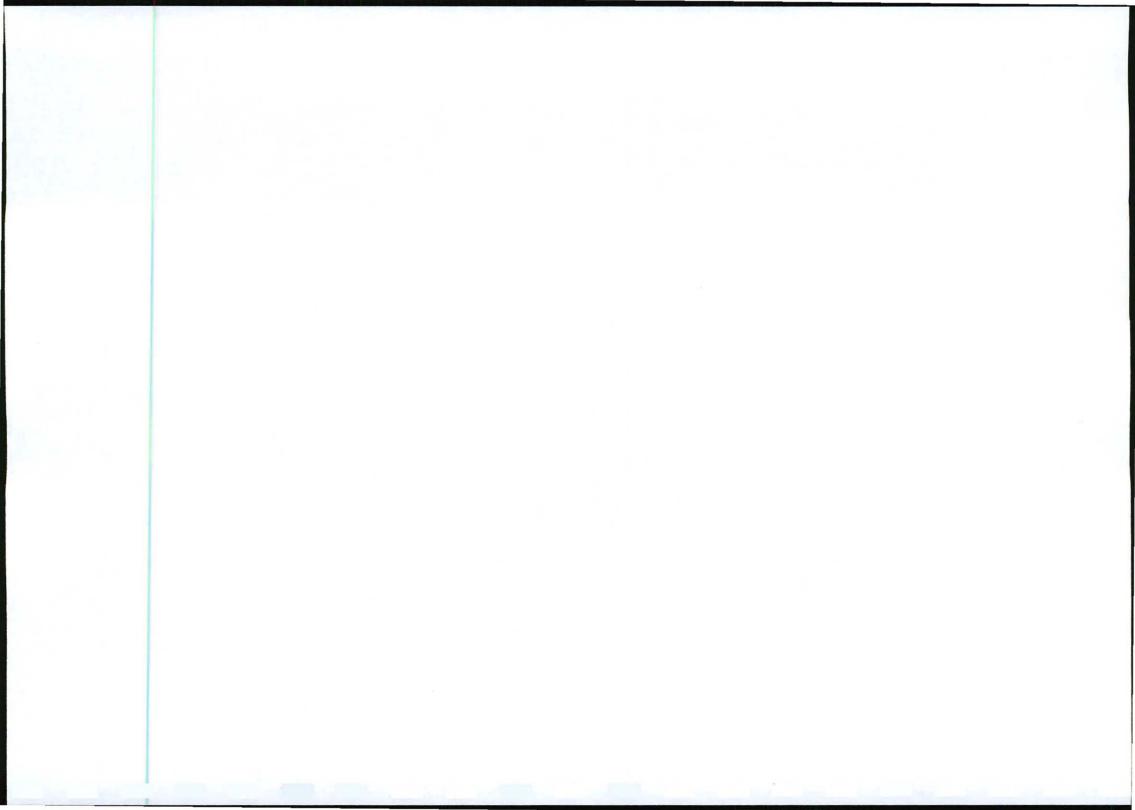
This new project consists of the following:

- Construct a 132kV line from the new Bulge Rivier substation to the Dorset substation.
- Construct an access/ construction road for the new 132kV line.
- Erect a construction camp.
- Obtain a servitude area of 31metres wide for the line.

Project Locality

Two Route alternatives are being investigated for the proposed project. The proposed sites are on the farms Bulge Rivier 198KQ Portions 2,16; Bergsig 202KQ Portion 4; Hermanusdoorns 600KQ Portion 1; Hermanusdoorns 205 KQ Portion 0; Hermanusdoorns 204kQ Portion 5; Welgevonden 186KQ Portions 0,1; Groenfontein 207KQ Portion 3; Keerom 208KQ Portion 0; Hanover 181KQ Portions 0,3; Welgevonden 180KQ Portion 0; Goudfontein 171KQ Portions 0,1,2; Schuinskloof 175KQ Portion 1; Rietbokhoek 4KR Re, Portions 1,2; Zeekoegat 5KR Re, Portion 1; Steenbokfontein 9KR Re, Portion 3; Dwarsfontein 51KR Re; Vischgat 64KR Portion 0; Brakfontein 16KR Re, Portions 1,2.

The final property descriptions will be confirmed in the draft report that will be available to all interested parties. The project is in the Lephalale Local Municipality in the Limpopo Province. Please find attached a **locality map** indicating the project area.





Activities applied for to be authorised

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010 is submitted. The Environmental Impact Assessment Regulations were published on 18 June 2010 in Government Notice No. R.543. Relevant to this project is the activities that are listed in Listing Notices 1 and 3. A Basic Assessment (BA) is the procedure designed for Listing Notices 1 and 3. A BA therefore has to be conducted and relevant to this project is the following listed activities:

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R 544 of 18 June 2010	23	The transformation of undeveloped land to institutional use, outside an urban area, where the total area to be transformed is bigger than one hectare for the purpose of a construction camp.
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R 546 of 18 June 2010	4	The construction of an access and construction road wider than 4 meters. (activity to be confirmed)
R 546 of 18 June 2010	14	The clearance of an area of 5 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation. (activity to be confirmed)

Other activities could be added in the course of the study as specialist studies become available.

Invitation to open day

A Public Participation Programme (PPP) will be undertaken as per the prescribed guidelines of the DEA. In general, this process entails the identification of Interested & Affected Parties (e.g. land owners, government departments and NGO's), the distribution of information letters with a request for input, as well as advertising of the project on site and in the local press.

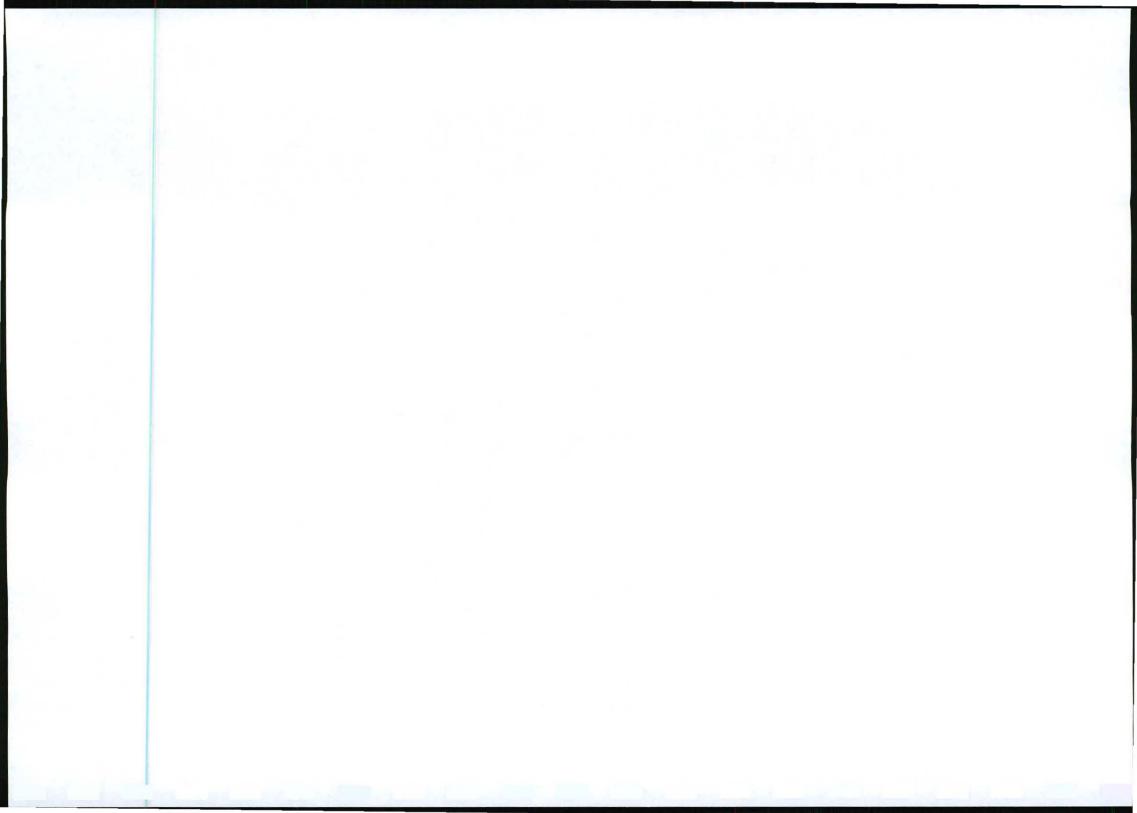
In addition, an **information day** will be conducted on **22 February 2011** from **10h00 to 14h00** to accommodate informed public opinion. Attendance can be at **any time between 10h00 and 14h00** on **22 February 2011. Venue: Biltong go back**. Take the R33 from the SPAR, Vaalwater towards Lephalale and travel for 40km's to venue. Tel nr: 014 755 3694. *Map with directions available*.

YOU ARE KINDLY REQUESTED TO CONFIRM YOUR ATTENDANCE: TEXTURE, email: riap@peopletexture.net / fax: 086 675 4026.

In order to register, as an Interested and Affected Party, any queries, comments and/or concerns should be submitted in writing together with your name, contact information and interest in the matter to Texture (Contact Person: Ria Pretorius) within 40 days from the date of this letter.

Kind regards

Ria Pretorius





20 May 2011

Interested and Affected Party email

PROPOSED ESKOM BULGE-DORSET 132kV LINE: DEA Ref nr: 12/12/20/2094 Notification of an Environmental Impact Assessment Process

Background

Texture Environmental Consultants has been appointed by Eskom Distribution Northern Region (the applicant) to lodge an application for environmental authorisation with the National Department of Environmental Affairs (DEA) for the construction of the following project:

Project Description

This new project consists of the following:

- Construct a 132kV line from the new Bulge Rivier substation to the Dorset substation.
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Project Locality

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Kind regards

Ria Pretorius

www.beoblerextria.ue.

Cell: 082 568 6344 | Tel: 012 362 7179 | Fax: 086 675 4026 | Email: riap@peopletexture.net





20 Mei 2011

Vir Aandag:

Geïnteresseerde en geaffekteerde party

Per hand

VOORGESTELDE ESKOM BULGE-DORSET 132kV LYN: DEA verw nr: 12/12/20/2094 Kennisgewing van 'n Omgewingsimpak studie Proses

Agtergrond

Texture Omgewings Konsultante is aangestel deur Eskom Distribusie Noordelike Streek (die applikant) om aansoek in te dien by die Departement van Omgewingsake (DEA) vir goedkeuring in terme van die Nasionale Omgewingsbestuurswet, 1998 (No 107 van 1998) soos aangepas, en die Omgewings Impak Regulasies, 2010 vir die volgende projek:

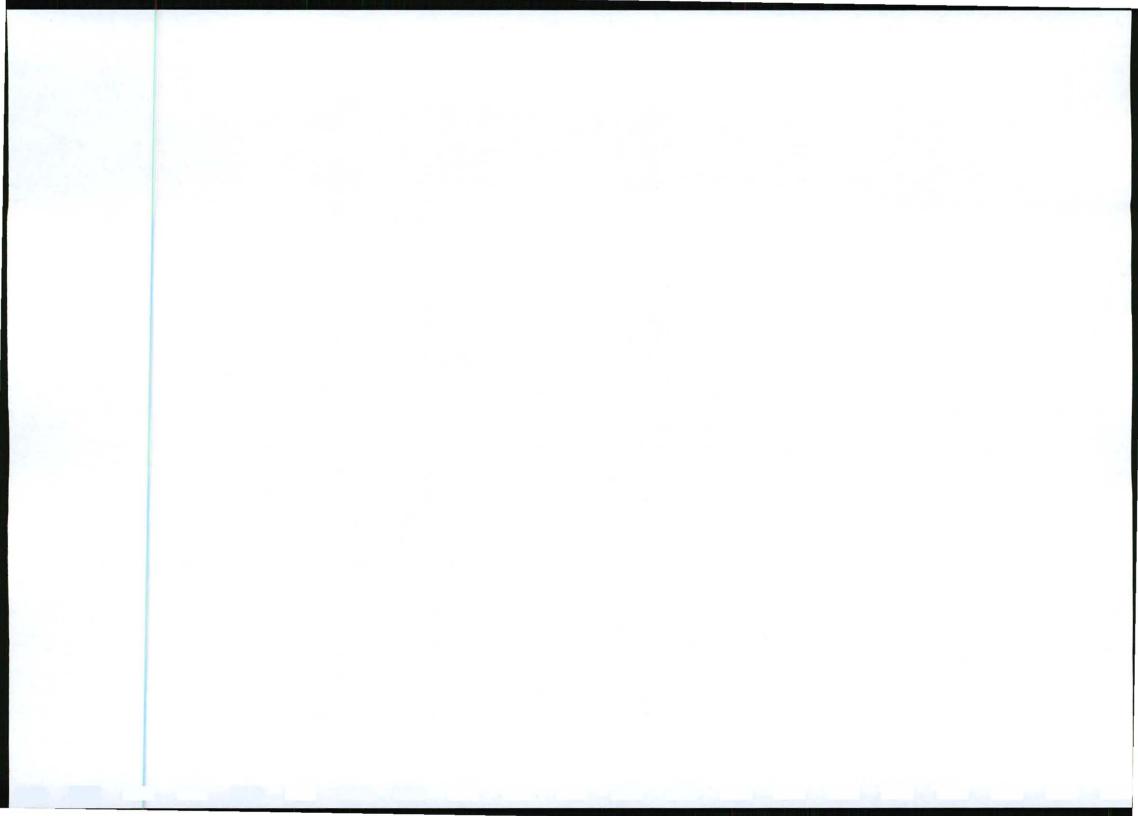
Projek beskrywing

- Rig 'n 132kV lyn op tussen die nuwe Bulge rivier substasie en die Dorset substasie;
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- Verkry 'n servituut area van 31 meter breed vir die lyn.

Projekligging

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Ander aktiwiteite mag dalk bygevoeg word na aanleiding van die spesialis studies

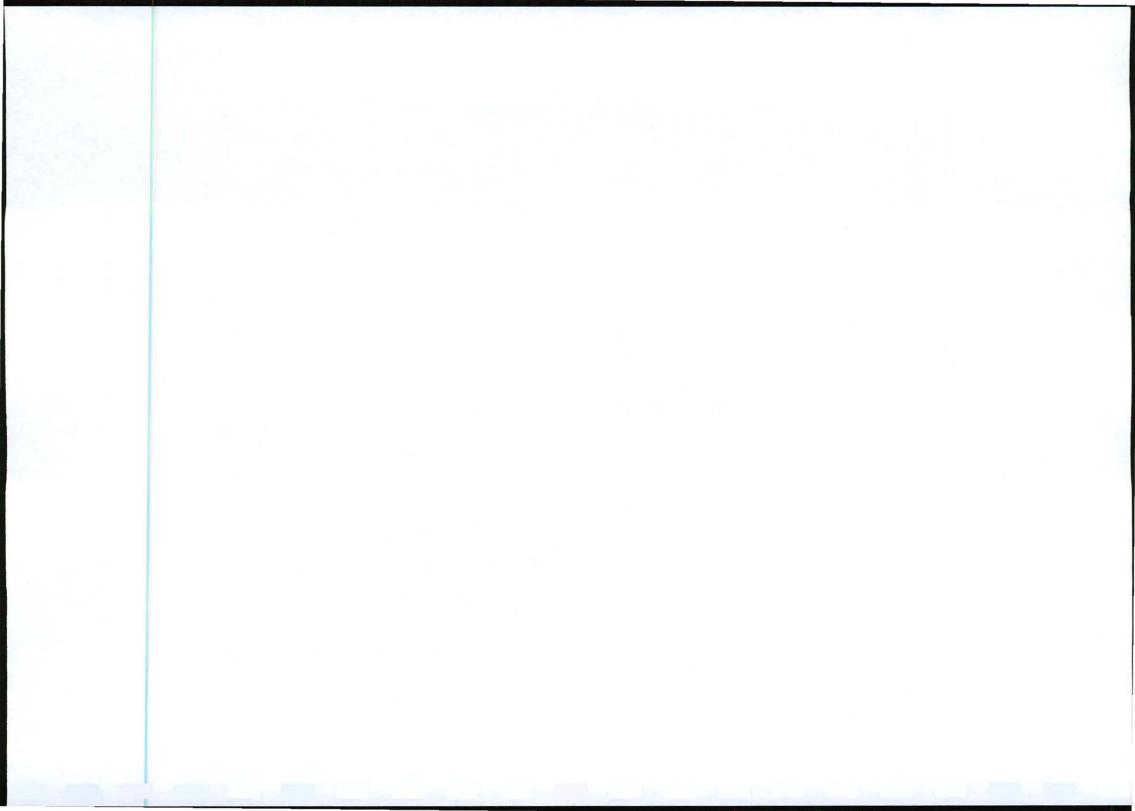
Uitnodiging vir kommentaar

'n Publieke deelname program word gevolg volgens die voorgeskrewe riglyne van DEA. In die algemeen, behels dit die identifisering van geintereseerde en geaffekteerde belangegroepe (soos grondeienaars, staatsdepartemente, ens.), die verspreiding van briewe met 'n versoek vir insette, sowel as kennisgewing van die projek op die betrokke terrein asook in die pers.

Om uself te laat registreer as 'n geïnteresseerde en/of geaffekteerde party in die beoogde projek, verskaf asseblief skriftelik, binne 40 dae vanaf die datum van hierdie brief, u kommentaar en volledige kontakbesonderhede aan Texture (kontak persoon: Ria Pretorius).

Beste groete

Ria Pretorius





26 Junie 2011

Vir Aandag: Geïnteresseerde en geaffekteerde party

E-pos

VOORGESTELDE ESKOM BULGE-DORSET 132kV LYN; DEA verw nr: 12/12/20/2094 Kennisgewing van 'n Omgewingsimpak studie Proses

Agtergrond

Texture Omgewings Konsultante is aangestel deur Eskom Distribusie Noordelike Streek (die applikant) om aansoek in te dien by die Departement van Omgewingsake (DEA) vir goedkeuring in terme van die Nasionale Omgewingsbestuurswet, 1998 (No 107 van 1998) soos aangepas, en die Omgewings Impak Regulasies, 2010 vir die volgende projek:

Projek beskrywing

- Rig 'n 132kV lyn op tussen die nuwe Bulge rivier substasie en die Dorset substasie;
- Bou 'n toegangs- en konstruksie pad vir die nuwe 132kV lyn;
- Verkry 'n servituut area van 31 meter breed vir die lyn.

Projekligging

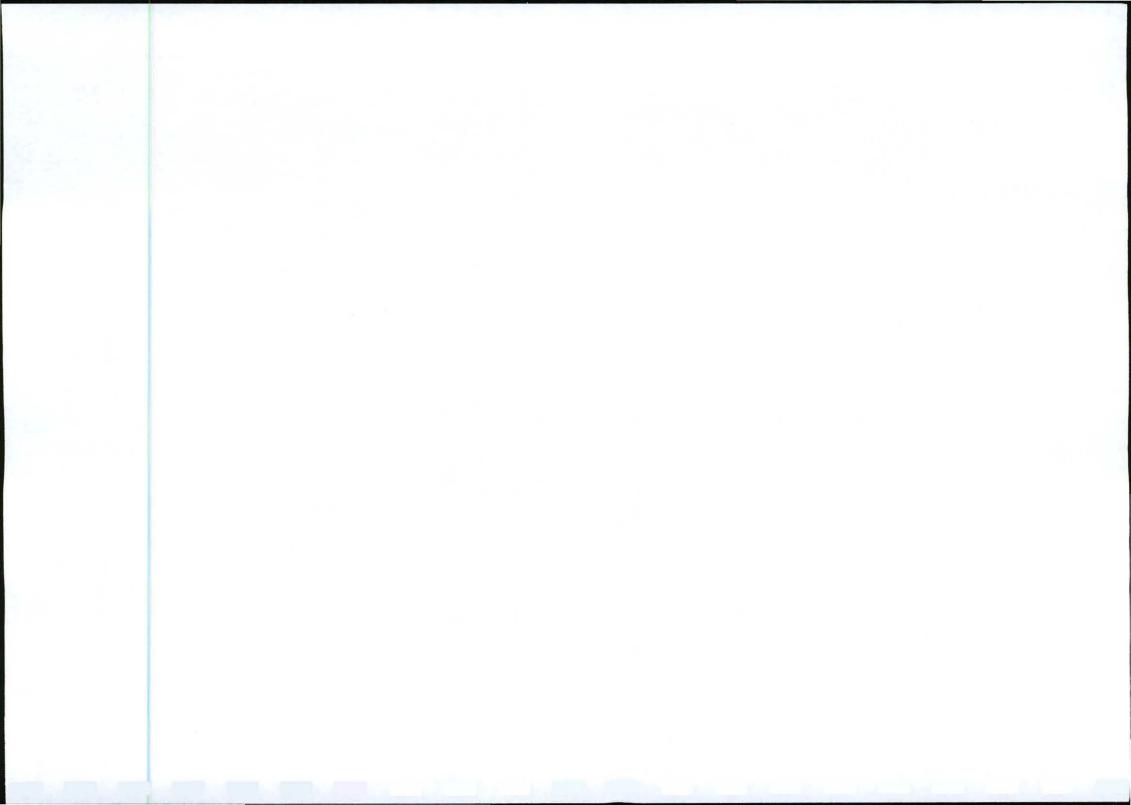
Vier alternatiewe roetes word ondersoek vir die projek. Die voorgestelde roetes is op die plase Bulge Rivier 198KQ; Bergsig 202KQ, Malmaniesriviersdrift 199KQ; Manamane 201KQ; Hermanusdoorns 600KQ; Hermanusdoorns 205 KQ; Hermanusdoorns 204kQ; Welgevonden 186KQ; Groenfontein 207KQ; Keerom 208KQ; Hanover 181KQ; Welgevonden 180KQ; Goudfontein 171KQ; Grootwater 176KQ; Kafferfontein 178KQ; Schuinskloof 175KQ; Witfontein 6KR; Rietbokhoek 4KR; Zeekgat 5KR; Steenbokfontein 9KR; Dwarsfontein 51KR Re, Vischgat 64KR; Witklip 17KR; Brakfontein 16KR. Roete Alternatief 3 of 4 is die opsies wat tans voorgestel word vir konstruksie. Die finale eiendoms beskrywings sal bevestig word in die konsep Basiese Assesserings verslag wat beskikbaar gestel sal word aan alle belange partye. Die projek is in die Lephalale Plaaslike Munisipaliteit in die Limpopo Provinsie. Verwys asb na die aangehegte kaarte.

Uitnodiging vir kommentaar

'n Publieke deelname program word gevolg volgens die voorgeskrewe riglyne van DEA. In die algemeen, behels dit die identifisering van geïnteresseerde en geaffekteerde belangegroepe. Ons versoek u vriendelik om aan ons kommentaar te verskaf rakende die impak van die onderskeie roetes op u eiendom. Roete Alternatief 3 of 4 is die opsies wat tans voorgestel word vir konstruksie.

Verskaf asseblief aan ons skriftelik, binne 40 dae vanaf die datum van hierdie brief, u kommentaar en volledige kontakbesonderhede aan Texture (kontak persoon: Ria Pretorius).

Beste groete Ria Pretorius





26 June 2011

Interested and Affected Party Email

PROPOSED ESKOM BULGE-DORSET 132kV LINE: DEA Ref nr: 12/12/20/2094 Notification of an Environmental Impact Assessment Process

Background

Texture Environmental Consultants has been appointed by Eskom Distribution Northern Region (the applicant) to lodge an application for environmental authorisation with the National Department of Environmental Affairs (DEA) for the construction of the following project:

Project Description

This new project consists of the following:

- Construct a 132kV line from the new Bulge rivier substation to the Dorset substation.
- Construct an access/ construction road for the new 132kV line.
- Obtain a servitude area of 31metres wide for the line.

Project Locality

Four Route alternatives are being investigated for the proposed project. The proposed sites are on the farms Bulge Rivier 198KQ; Bergsig 202KQ, Malmaniesriviersdrift 199KQ; Manamane 201KQ; Hermanusdoorns 600KQ; Hermanusdoorns 205 KQ; Hermanusdoorns 204kQ; Welgevonden 186KQ; Groenfontein 207KQ; Keerom 208KQ; Hanover 181KQ; Welgevonden 180KQ; Goudfontein 171KQ; Grootwater 176KQ; Kafferfontein 178KQ; Schuinskloof 175KQ; Witfontein 6KR; Rietbokhoek 4KR; Zeekgat 5KR; Steenbokfontein 9KR; Dwarsfontein 51KR Re, Vischgat 64KR; Witklip 17KR; Brakfontein 16KR. Route Alternative 3 or 4 is proposed for construction.

The final property descriptions will be confirmed in the draft report that will be available to all interested parties. The project is in the Lephalale Local Municipality in the Limpopo Province. Please refer to the attached maps.

Invitation to supply comment

A Public Participation Programme (PPP) will be undertaken as per the prescribed guidelines of the DEA. In general, this process entails the identification of Interested & Affected Parties. We kindly request you to provide us with comment regarding the impact of the various routes on your property. **Route Alternative 3** or 4 is proposed for construction.

Please submit in writing, within 40 days of the date of this letter, your comment and contact details to Texture (Contact Person: Ria Pretorius).

Kind regards

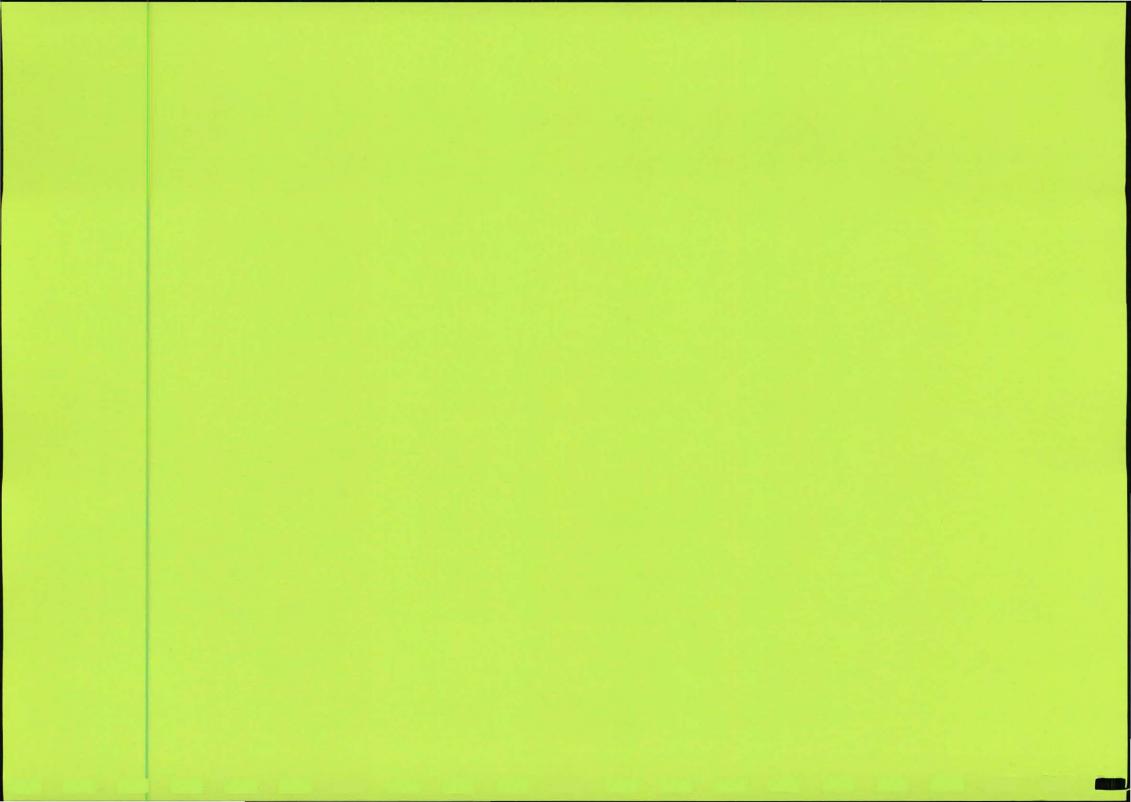
Ria Pretorius

www.peoplatexture.nat

Cell: 082 568 6344 | Tel: 012 362 7179 | Fax: 086 675 4026 | Email: riap@peopletexture.net



Appendix E4: Public Participation Information Public Information Meeting Attendance Register



ENVIRONMENTAL IMPACT ASSESSMENT PROCESS: PUBLIC PARTICIPATION PROGRAMME OMGEWINGSIMPAKSTUDIE PROSES: PUBLIEKE DEELNAME PROGRAM

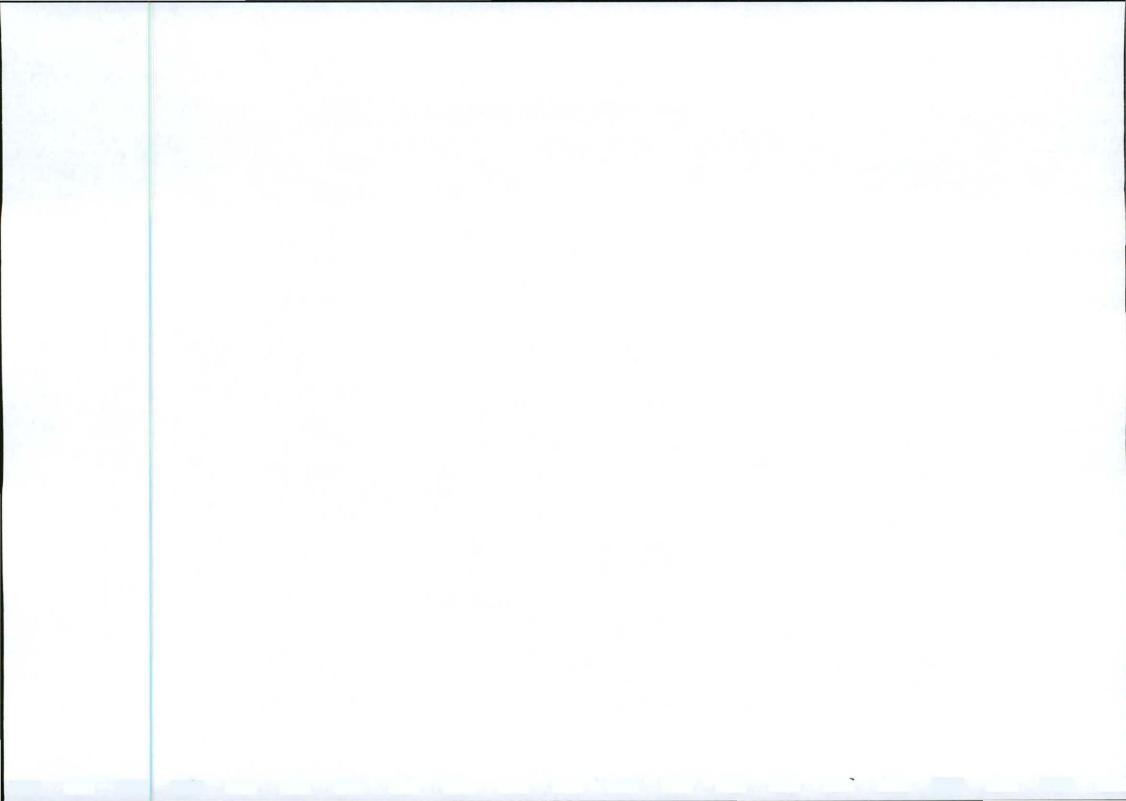
ESKOM BULGE-DORSET 132kV LINE/LYN

ATTENDANCE REGISTER/ PRESENSIE LYS

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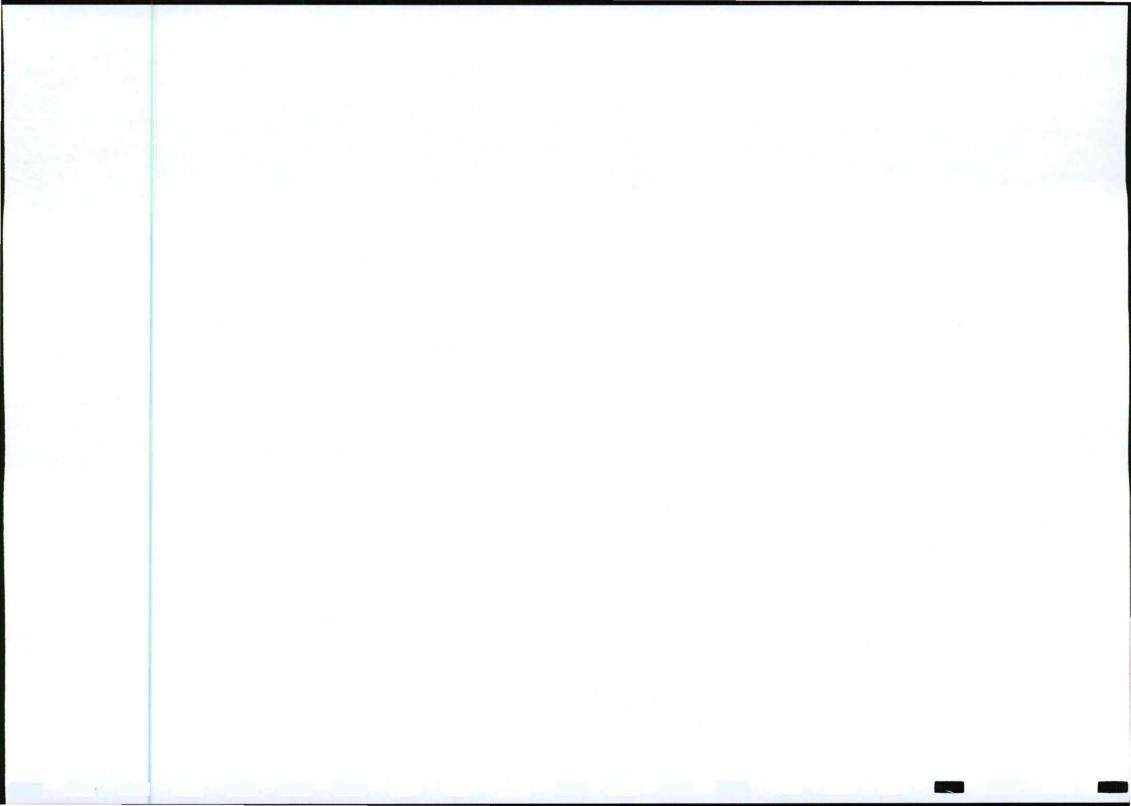
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Michiel VAN BAALON	AMA AMANZI Holdings PTG	P.O.Box 1204 UPAL Woler	0739234989	_	E-AMANZI	Fact /
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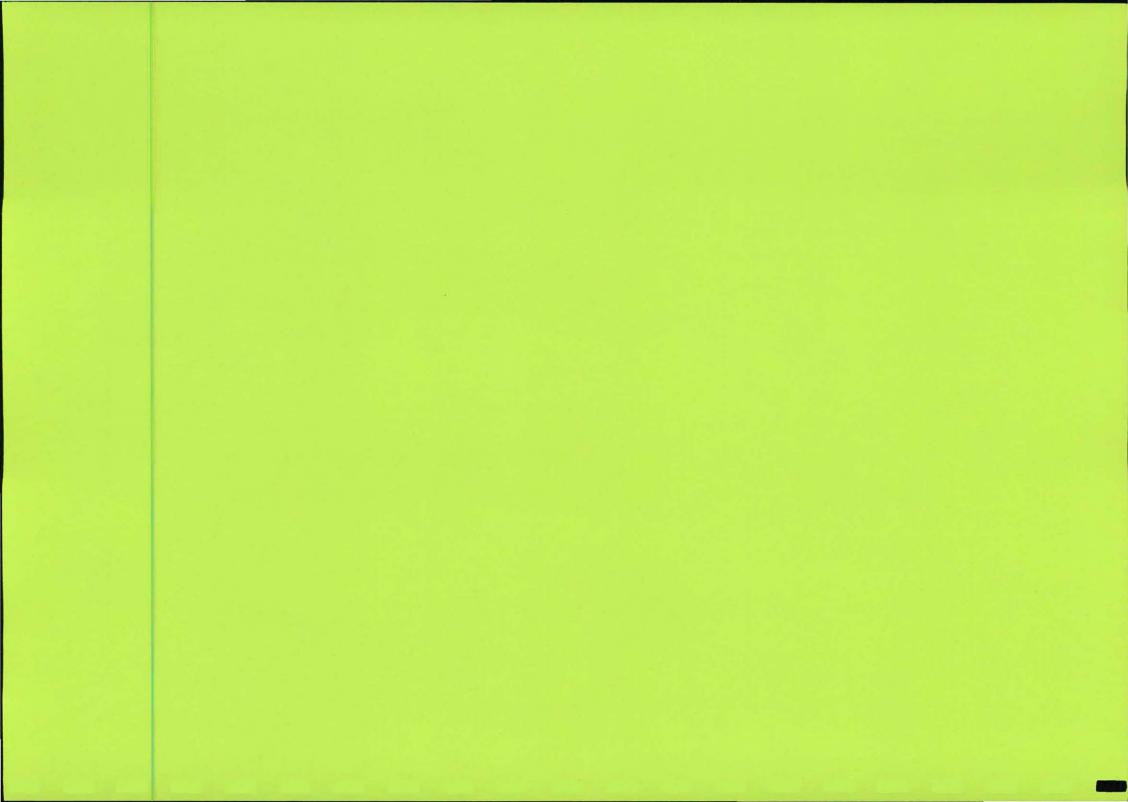
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Appendix E5: Public Participation Information
Public Information Meeting
Request for comments form





U kommentaar is vir ons belangrik.

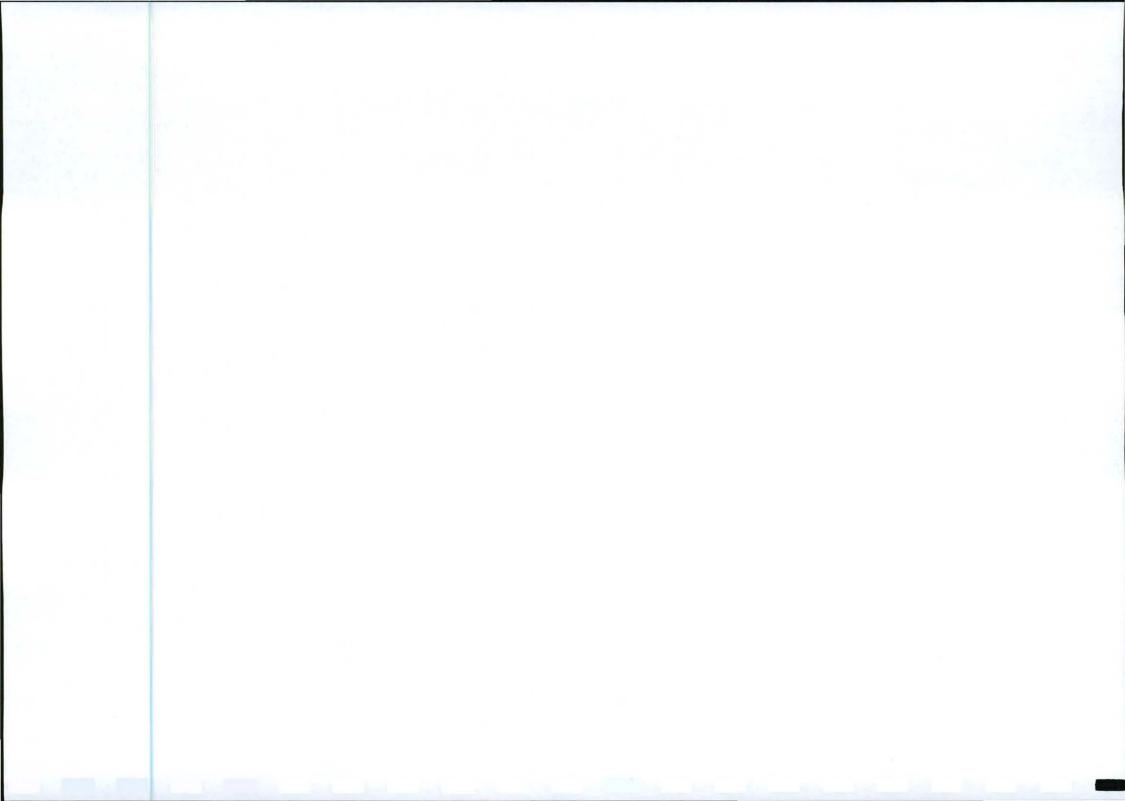
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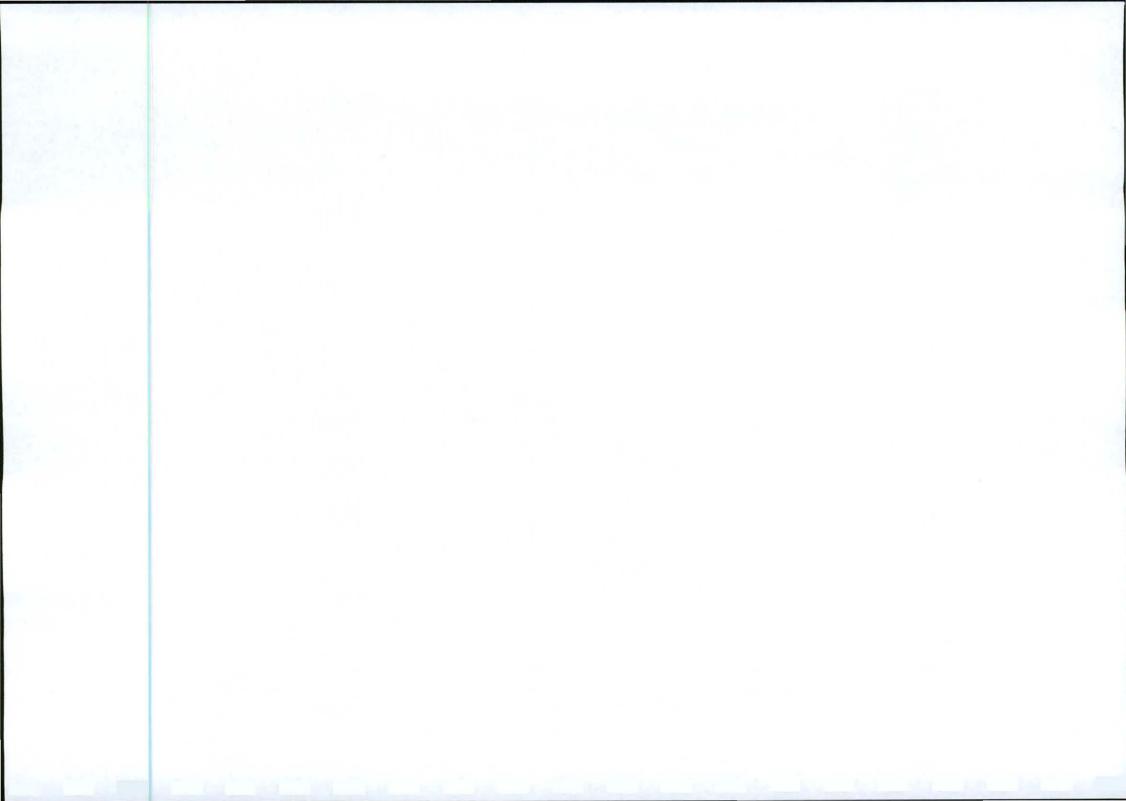
Tel: 082 568 6344/ 012 362 7179

Faks: 086 675 4026

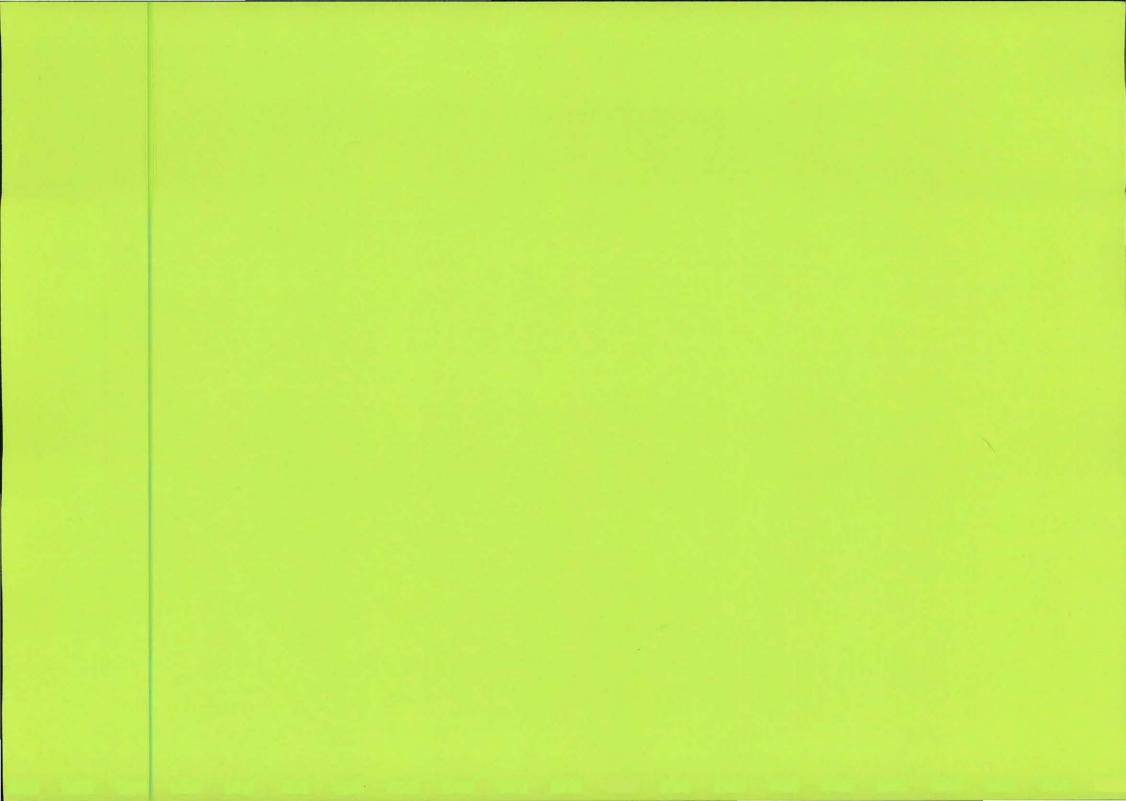
E-pos: riap@peopletexture.net

ESKOM BULGE-DORSET 132kV LYN PROJEK: Ref nr: 12/12/20/2094 OMGEWINGSIMPAKSTUDIE: PUBLIEKE DEELNAME PROGRAM INLIGTINGSDAG: 22 FEBRUARIE 2011 VERSOEK VIR KOMMENTAAR





Appendix E6: Public Participation Information Comments and Responses Report



Eskom Bulge-Dorset 132kV line NEAS Ref DEA/EIA/0000113/2011 DEA Ref 12/12/20/2094 BASIC ASSESSMENT REPORT APPENDIX E6 COMMENTS AND RESPONSES REPORT

The objective of this report is to supply all proceedings, findings and recommendations pertaining to the Public Participation Programme.

PROCESS FOLLOWED

The procedures followed in the Public Participation Programme (PPP) are summarised as follows:

1.1 Notification of application:

The EAP (Texture) gave notice that an application for environmental authorisation was lodged with the National Department of Environmental Affairs (DEA).

The Consultants are undertaking the Environmental Impact Assessment (EIA) process in terms of Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Relevant to this project is Government Notice No. R.544 and R546 and the Listing Notices 1 and 3. A Basic Assessment (BA) is the procedure to be followed and relevant to this project are the following listed activities:

Relevant notice:	Activity No:	Description of each listed activity as per project description:
GNR 544 of 18 June 2010	10	The construction of facilities or infrastructure for the distribution of electricity outside urban areas with a capacity of 132kV.
GNR 546 of 18 June 2010	4	The construction of an access and construction road wider than 4 meters (ii) outside urban areas, in (gg) areas within 10 km from national parks or world heritage sites or 5 km from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve.
GNR 546 of 18 June 2010	14	The clearance of an area of 5 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation. (activity to be confirmed)

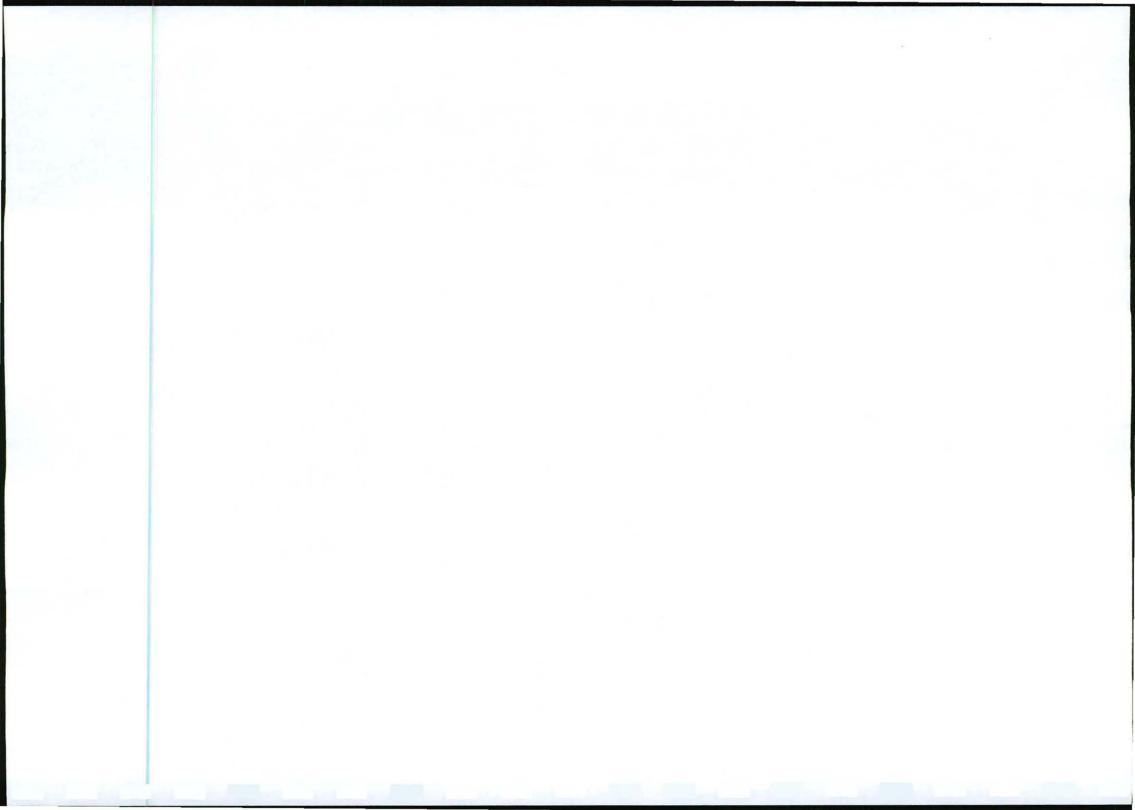
DEA acknowledged receipt of this application confirming the reference number of 12/12/20/2094.

1.2 Advertising on site

On 2 December 2010 several laminated on-site notices in English and Afrikaans were placed in the project area:

- Notice on the D2132 sand road.
- At the Bulge Rivier shop close to the junction of the R517 with the D2132 sand road.
- At Zeederbergs on the R517- at garage and a major chain store
- Notice along the D1882 sand road
- Notice on the D1162 road

Refer to Appendix E1: Proof of site notices.



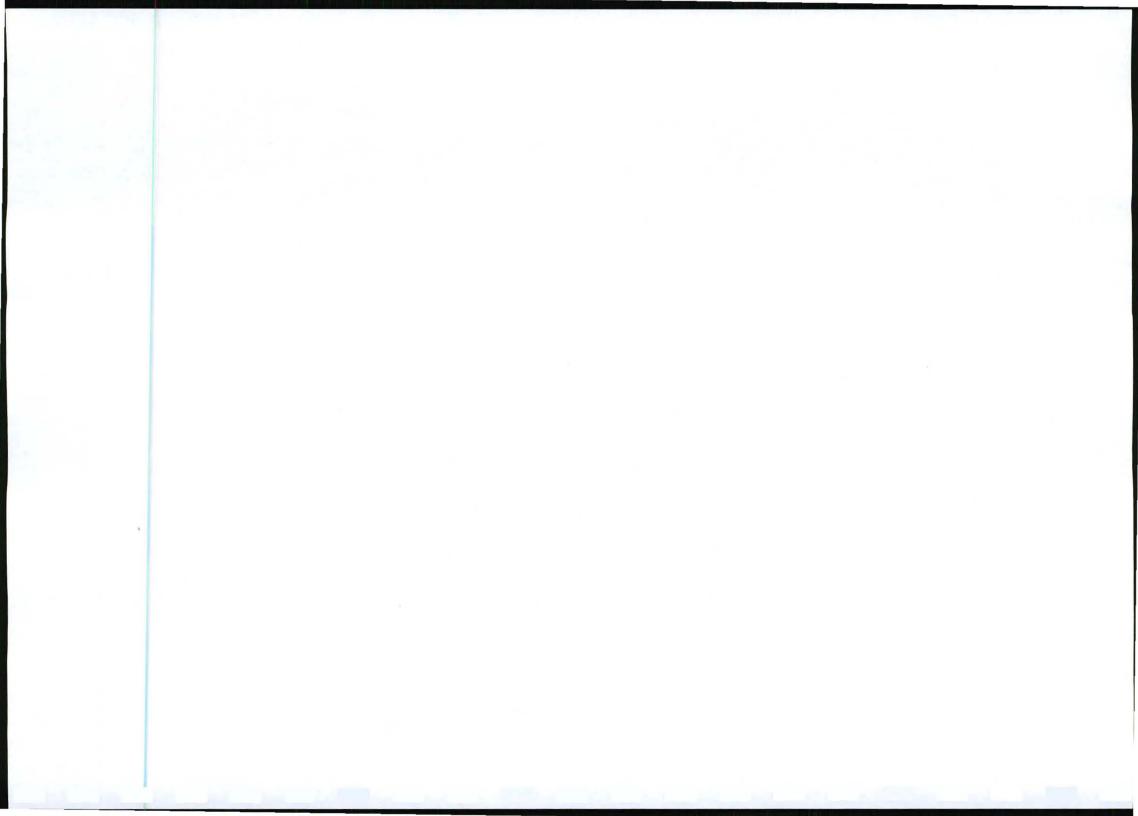
1.3 Advertising in the newspapers

Newspaper advertisements were placed in the Beeld on 10 November 2010 to notify of the project. Further to the above, on 28 May 2012 in the Beeld and on 31 May 2012 in the Mogol Pos to advertise the availability of the draft BAR.

Refer to Appendix E2: Proof of newspaper ad. (Proof of placement of newspaper notices for the draft BAR was not available at the time of the publishing of this report.)

1.4 Notification to Interested and Affected Parties

- The Public Participation Programme (PPP) started in November 2010 and continued until April 2012. It included
 the identification of key stakeholders, the distribution of information letters with a request for comment, as well as
 advertising of the project in the local press and on site.
- · List of authorities informed:
 - · Department of Water Affairs: Water Resources & Water Quality Management
 - South African Heritage Resources Agency
 - · Limpopo Department of Economic Development, Environment and Tourism: Environmental Impact Management
 - · Department of Agriculture, Forestry and Fisheries: Land Use and Soil Management
 - · Department of Minerals and Energy
 - SA National Road Agency Ltd.: Northern Region
 - Road Agency Limpopo
 - Department of Roads and Transport
 - Department of Rural Development and Land Reform: Land Claims Commissioner
 - Department of Rural Development and Land Reform: State Land Administration
 - Transvaal Landou Unie SA Noord
 - Distriks Landbou Unie Vaalwater
 - Distriks Landbou Unie Thabazimbi
 - Distriks Landbou Unie Ellisras
 - Agri Limpopo
 - Agri Lephalale
 - Waterberg Biosphere Reserve
 - Waterberg Nature Conservancy
 - Mokolo River Nature Reserve
 - Waterberg District Municipality
 - Lephalale Local Municipality
 - Eskom Transmission
 - Eskom Distribution Northern Region
 - Landowners
- Meetings were conducted with Farmers' associations, namely the Transvaal Farmers' Union as well as Agri Limpopo. The landowners are represented by both these associations.
- In addition, notification of an information meeting on 22 February 2011 was sent to all IAPs. The purpose of the
 meeting was to furnish the landowners and other interested parties with information regarding the extent of the
 project, the proposed alternatives, the process of negotiations for servitudes, and the extent of the
 Environmental Impact Assessment Process. Project posters with information and maps of the routes were
 presented at the meeting. Written comment was requested at the meeting.
- Several one-on-one meetings were conducted with affected landowners to address their specific requirements.
 This resulted in changes to the alignment of the final power line route.
- A draft Basic Assessment Report was compiled with the main aim to identify issues, potential impacts and
 potential alternatives associated with this project. It included a description of the status quo of all relevant
 environmental components as well as the proceedings of the PPP and communication with registered Interested
 & Affected Parties (IAPs).



- The draft Basic Assessment Report (this document) was distributed on 29 May 2012 to the following stakeholders for their comment:
 - Department of Water Affairs: Water Resources & Water Quality Management
 - South African Heritage Resources Agency
 - Limpopo Department of Economic Development, Environment and Tourism: Environmental Impact Management
 - Department of Agriculture, Forestry and Fisheries: Land Use and Soil Management
 - Department of Minerals and Energy
 - SA National Road Agency Agency Ltd.: Northern Region
 - Road Agency Limpopo
 - Department of Roads and Transport
 - Department of Rural Development and Land Reform: Land Claims Commissioner
 - Department of Rural Development and Land Reform: State Land Administration
 - Transvaal Landou Unie SA Noord
 - Distriks Landbou Unie Vaalwater
 - Distriks Landbou Unie Thabazimbi
 - Distriks Landbou Unie Ellisras
 - Agri Limpopo
 - Waterberg Biosphere Reserve
 - Waterberg Nature Conservancy
 - Mokolo River Nature Reserve
 - Waterberg District Municipality
 - Lephalale Local Municipality
 - Eskom Transmission
 - Eskom Distribution Northern Region
 - Landowners
- The due date for comment on the draft Basic Assessment Report is 3 July 2012.
- Subsequently, a final Basic Assessment Report (BAR) will be compiled and submitted to DEA by August 2012. This report will include all concerns raised to the draft BAR and responses thereto. The Consultants (EAPs) will ensure that all concerns raised are addressed in appropriate detail in the final Basic Assessment Report.

2. COMMENTS RECEIVED BY INTERESTED AND AFFECTED PARTIES DURING THE ADVERTISING FOR THE BASIC ASSESSMENT REPORT

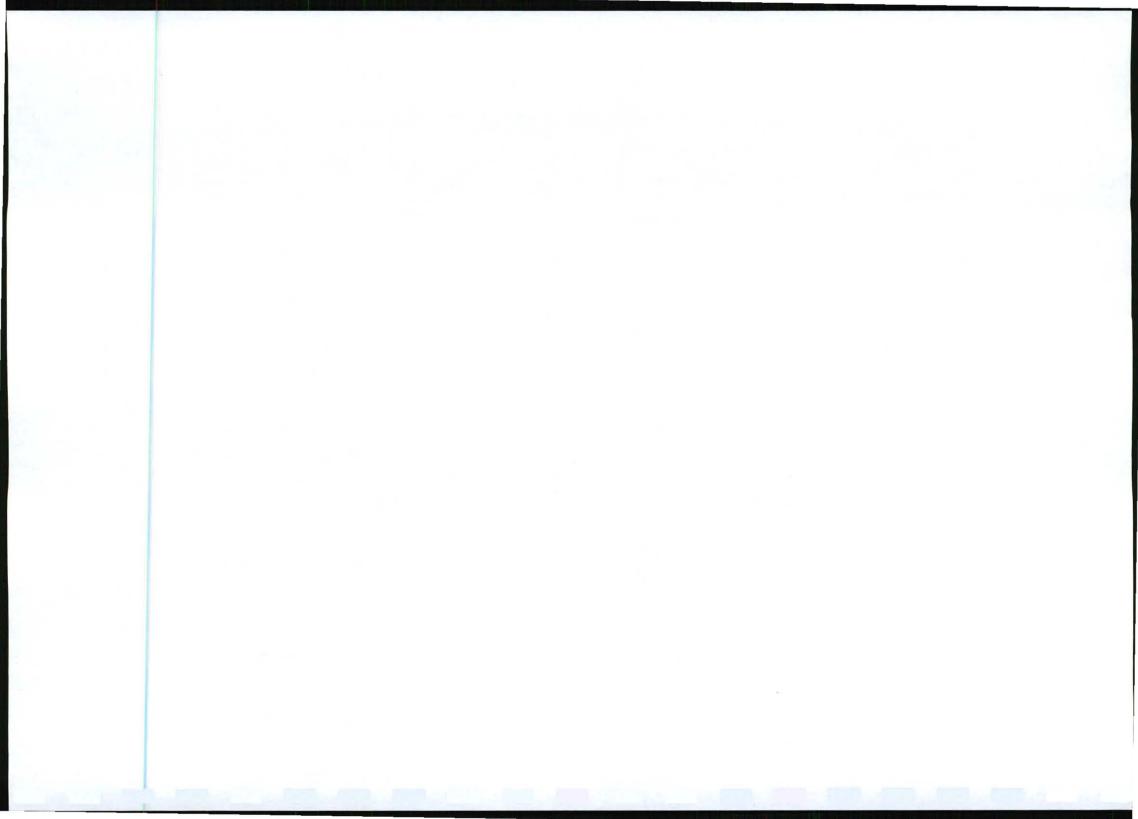
The Public Participation Programme allowed for informed and responsible decision-making by all interested and affected parties. Refer to Appendices E7 – E8 for copies of written comment.

2.1 Comments received in the notification phase

This section of the report synthesises the issues and concerns identified by interested and affected parties and various stakeholders during the public participation process and can be summarised as follows:

2.1.1 The following IAPs registered:

- The Fold, SA Children's Home, Micky Prince, Bergsig 196KQ Re
- Hermanusdoorns Shareblock Ltd, John Hill
- Leopard Leap Lodge, Jan and Maya Oosterhoff, Donkerhoek 615LQ
- Witfontein Game Farm (Pty) Ltd, Berthold von Sethe, Witfontein 154KQ
- Waterberg Nature Conservancy, Richard Wadley
- Ruimtevreug Boerdery Edms Bpk, KP Van der Walt en AC Greyling, Steenbokfontein 9KR Portions 1,3
- Limpopo Department of Economic Development, Environment and Tourism: Waterberg District, Environmental Impact Management
- Mogolriver Game Farm (Pty) Ltd/ Mokolo River Nature Reserve, Adam Gunn



- Ama Amanzi Game Lodge (Pty) Ltd, Michiel & Issabella Van Baalen-Kerklaan, Goudfontein KQ171 Re
- LD Schmutz, Hanover 181KQ
- Elana Greyling
- Daan Erasmus, Manamane 201KQ
- Hermanusdoorns Shareblock Ltd, Andre Vosloo
- Hermanusdoorns Shareblock Ltd, Renske Hofmeyr
- Chris Allanson, Hermanusdoorns 204KQ Portions 4,5,
- Hermanusdoorns Shareblock Ltd. Marisa Bellini, Jennifer Rupert
- Hermanusdoorns Shareblock Ltd, AS du Plessis
- Hermanusdoorns Shareblock Ltd. Louisa Gericke
- Hermanusdoorns Shareblock Ltd, Stewart Stephen
- Hermanusdoorns Shareblock Ltd, Mariette & Gabriel Stoltz
- Hermanusdoorns Shareblock Ltd, PA Groenewald
- Agri Lephalale/ Agri Limpopo
- SATLU: TLU Vaalwater

2.1.2 Verbal Comment received

Meeting with Transvaal Farmers' Union (TLU, Vaalwater)

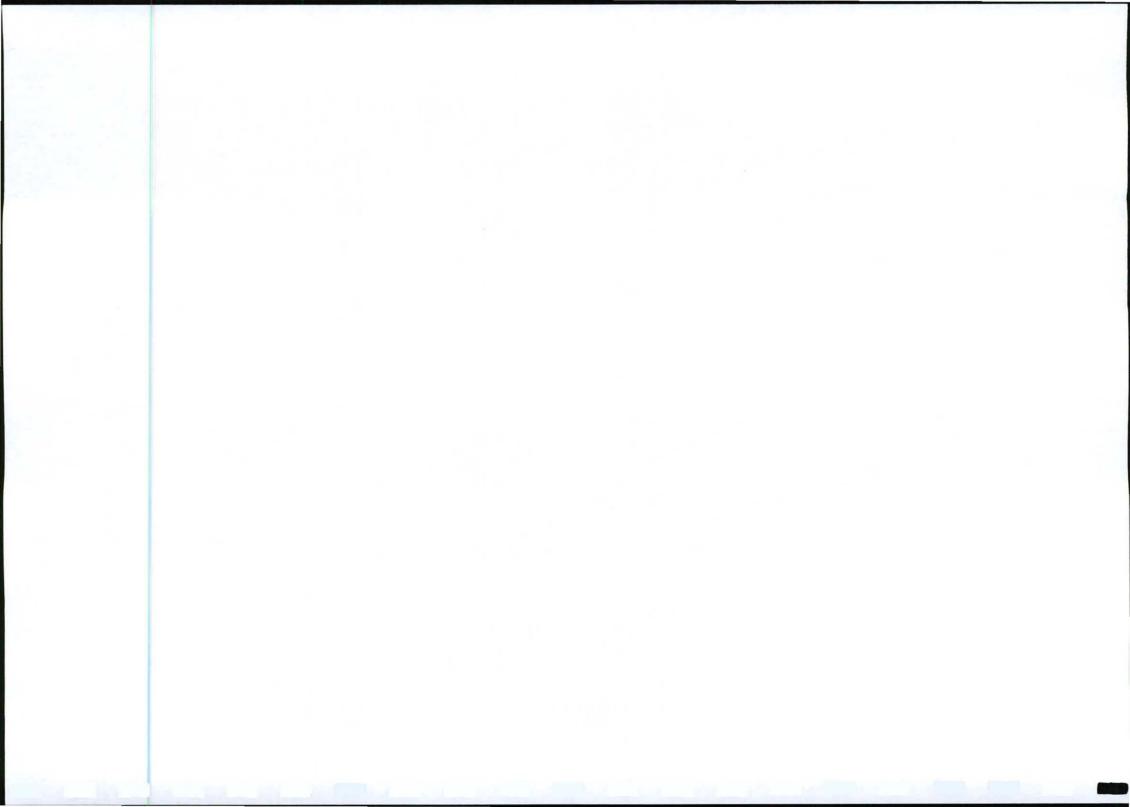
Eskom Northern Region, Polokwane Office, and the environmental consultants, requested an opportunity to speak at a monthly meeting of the Transvaal Farmers' Union, Vaalwater on 25 January 2011. The purpose of this being to communicate the different Eskom projects planned within the macro area between Vaalwater and Ellisras. This meeting formed part of the community consultation processes. Documents in Afrikaans (their preferred language for communication), containing a concise project description together with colour copies of the proposed routes had been distributed to all the attendees.

Comments:

- The attendees requested progress with regards to their request that Eskom hire the relevant servitude widths from the landowners instead of purchasing the servitudes rights.
 Responses:
 - Eskom explained that meetings had been held in this regard with Eskom's top management and it was concluded that payment would continue to take place in accordance with the current expropriation and servitude legislation. There is however significant effort from Eskom to establish effective communication channels with the landowners and provide an overall improved service. Mr Xander Neetlhing from Eskom undertook to obtain an official response from Eskom in this regard.
- The attendees stressed that the Waterberg Biosphere must be included in the community consultation Programmes.
- It was confirmed that the Nylstroom-Vaalwater Road would in future be managed by SANRAL. Mr Nothnagel from their Polokwane office is the correct person to liaise with.
- The farmers requested that all notifications of the projects are placed in their local newspapers as follows:
 Mogol Pos for the Bulge Rivier Projects and the Warmbad Pos for the Nylstroom-Vaalwater Project.
- Responses
 - Eskom emphasised that the proposed projects would ensure a strengthening of the power supply of the entire macro area. The whole purpose of these projects is to enable Eskom to provide a reliable service to the relevant communities and farms within the macro area.

Advantages to customers in the macro area:

Upgrade the current supply from Radial feed to Ring feed, Currently Radial feed from Warmbad Substation.
 Ring feed will create an alternative supply from Matimba Power station. All substations in the project will form part of an integrated ring supply network.



 Place the High Voltage (132kV) sources closer to the customers (Bulge and Dorset substations) and shorten the Medium Voltage (22kV) networks to improve the quality of supply.

Meeting with Agri Limpopo

Eskom Northern Region, Polokwane Office, and the negotiator had the opportunity to meet with Agri Limpopo and an affected landowner on 20 April 2011. The purpose of this being to communicate the different Eskom projects planned within the macro area between Vaalwater and Ellisras. The main issues discussed were the manner of negotiations and compensation for servitude areas.

Response:

The process of negotiations can commence as soon as the Environmental Impact Assessment recommend the preferred alternative i.e. route, site etc. for the project. After identification of the preferred alternative, a land valuator will be appointed to value the property(ies). The distance/length of the line affecting each property is measured to calculate the area affected by the line. A process of negotiations will follow between landowner(s) and Eskom appointed negotiators. After agreement has been reached, Eskom and the landowner will sign the documents. The valuations will be tabled before an Eskom tender committee for approval. Eskom pays the consideration as determined by the professional evaluator on a before and after basis. Servitude rights for a servitude in general terms will be obtained by means of an "Option to Acquire a Servitude". Interest will be paid according to the laid down principle by the National Treasury Act.

Eskom Distribution has a compensation model that allows for a once-off compensation for the servitude which will be paid upon registration of the servitude. A servitude will be registered which provides Eskom with the rights to construct and maintain a power line on the applicable property. The applicable land is therefore not purchased. All normal activity on the farm/land can continue as usual. For the sake of safety the landowner should not construct any structures in the servitude area underneath the power line. Eskom has the right to enter the servitude 24 hours per day to maintain the line in so much as following the laid down farm access protocol.

Power for rural supply cannot be supplied directly from an 132kV line. There is however indirect benefit in the construction of the line for the community, in that the supply would be strengthened with a feed to the substations that feed the rural lines. Eskom strives to follow the shortest route from point A to B due to the fact that the line costs approximately R1 600 000 per kilometer to construct. Objections from landowners/users and site-specific problems will be considered in the finalisation of any route/site.

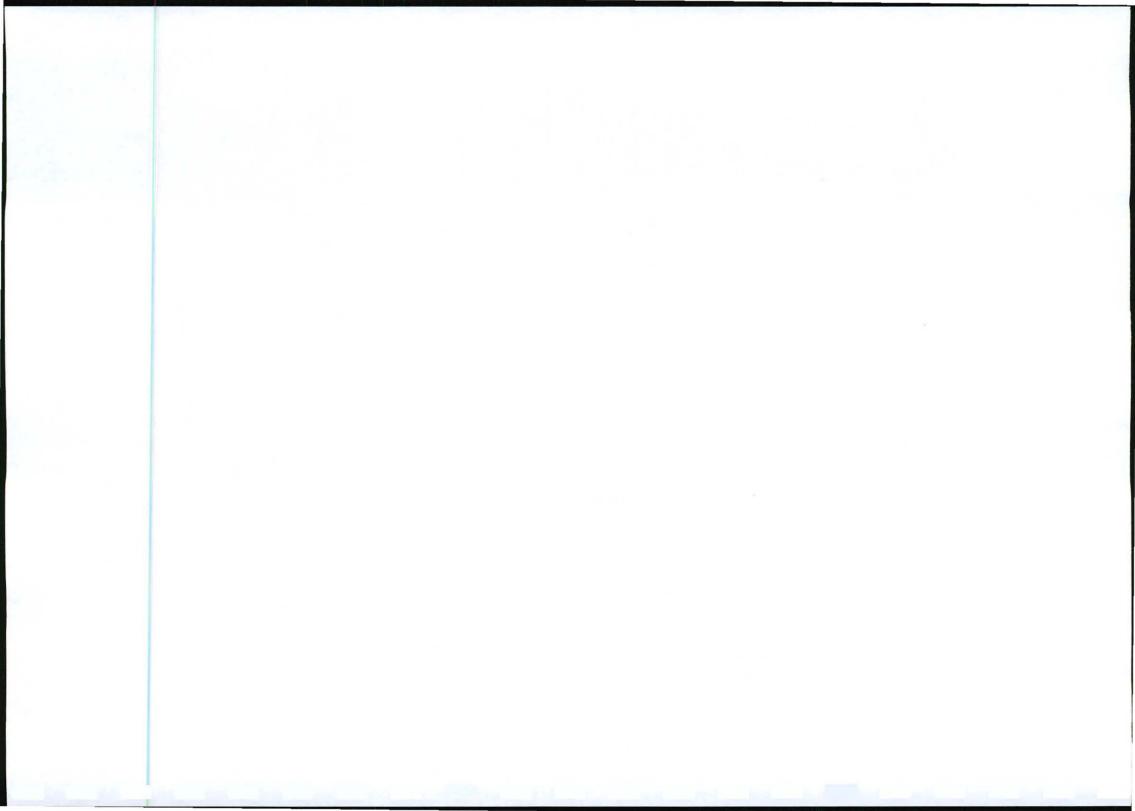
The option document (referred to above) is a binding document that will reflect all the requirements of the landowner, for example: the negotiated compensation for the servitude; specific access arrangements to his property etc. Negotiations between the landowner and the negotiator will address site-specific requirements such as the positions of the pylons, on the property in question. These agreements/requirements will be noted on a site plan, as part of the option document. Construction may only commence once the environmental authorisation has been issued and the option document has been signed by the affected landowner.

2.1.3 Comments received at the information meeting

An *information meeting* was conducted on 22 February 2011 at Biltong go back, a venue on the R33 nearby the project site. The purpose of the meeting was to furnish the landowners and other interested parties with information regarding the extent of the project, the proposed alternatives, the process of negotiations for servitudes, and the extent of the Environmental Impact Assessment Process. Project posters with information and maps of the routes were presented at the meeting. Written comment was requested at the meeting. (Refer to Appendix E5 for the form that was provided at the meeting, for this purpose). The information meeting was conducted in the format of an open day with an invitation for attendance between 10h00 to 14h00 on 22 February 2011.

Comment can be summarised as follows:

(Refer to Appendix E8 for the comment that was provided at the meeting)



Welgevonden 186KQ Ptns 0,1; Groenfontein 207KQ Ptn 3. Mr SP van der Merwe

Mr van der Merwe confirms some site-specific issues that should be accommodated in the placement of any power line on his property i.e. existing irrigation, flight paths of light aeroplanes, protected trees etc. He is not in support of the route and proposed an alignment on the opposite side of the road.

Response:

The EIA team had meetings with the landowner and a sensitive placement of the line to the southern side of the road is under discussion. Alternative 4 is supported by the landowner.

Hanover 181KQ; Welgevonden KQ180. Mr WH Ernst

Comment:

He confirmed the site specific issues i.e the dwelling on farm Hanover and dams adjacent to the road; a koppie etc. He proposed a route in the same alignment as the current proposed Alt 4.

Response:

The EIA team had discussions with the landowner and the sensitive placement of the line is discussed with them. Alternative 4 is supported by the landowner.

Michiel Van Baalen, Ama Amanzi Game Lodge (Pty) Ltd, Goudfontein 171KQ RE

Comment:

Landowner protested to alternative 1, as the line will be along the entire left side (from N to S) of their farm and therefore has negative impact on their businesses and the value of the farm. The line will make a big part of their farm useless, since the farm is narrow and they are developing the farm into a game lodge. They market mainly to overseas tourists. They prefer option (alternative) 2 along the R33 national road as this option will have the least impact on their business.

Response:

Alternative 2 (along the R33) will impact significantly on other landowners due to the required distance of powerlines from national roads. Alternative 1 has less impact to this regard. The EIA team investigated Alternatives 3 and 4 subsequent to the open day and several discussions with affected landowners.

KP Van der Walt & AC Greyling, Ruimtevreug Boerdery Edms Bpk, Steenbokfontein 9KR Portions 1,3 Comment:

The landowner prefers the power line to the north of the road. He actually prefers not to accommodate any line. Will discuss with other directors.

Response:

The alignment is altered to run on the northern side of the road over portion 3. The specific circumstances will be discussed with the landowner(s) on site and a sensitive and accommodating placement will be finalised with them.

The Fold, SA Children's Home, Harry and Peggy Parham, Bergsig 196KQ Re

Comment:

Any construction would be detrimental to the playing fields at the home.

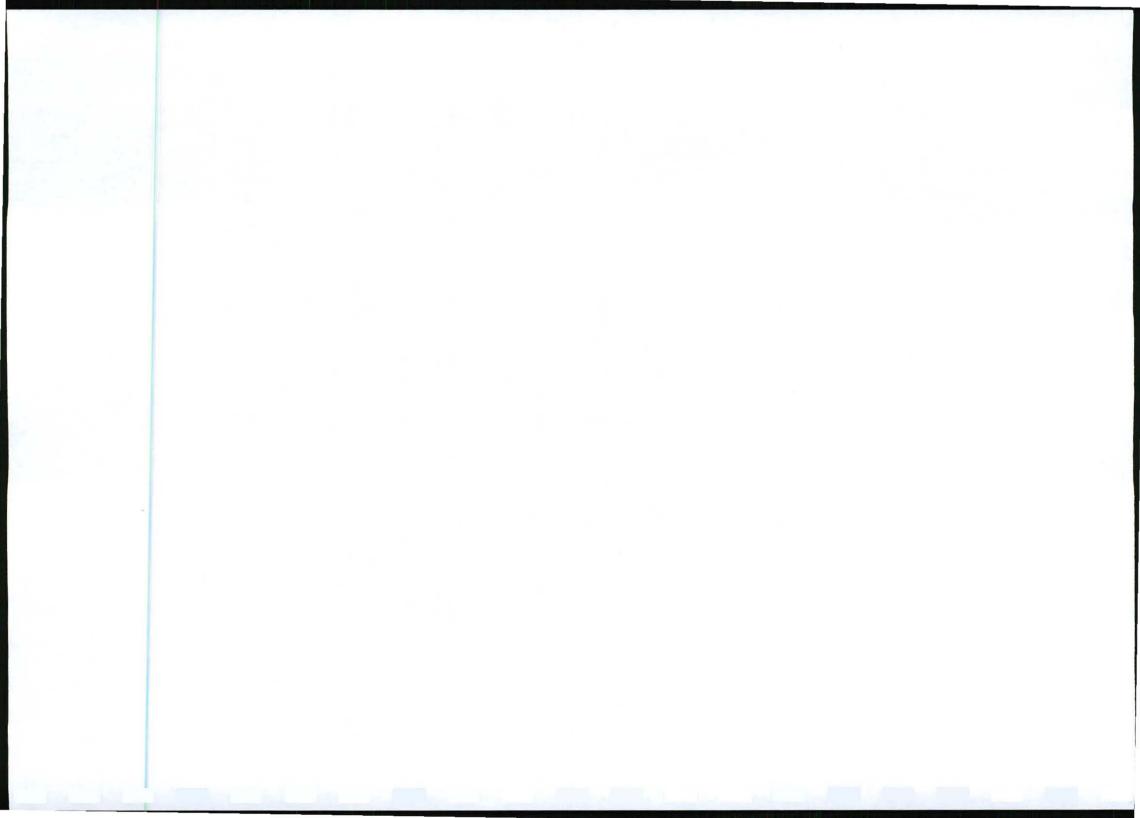
Response:

The proposed Route Alternative 4 from Bulge Rivier substation towards Hermanusdoorns is aligned to the northern side of the R517 tar road and will not impact on this landowner.

Waterberg Nature Conservancy; Vaalwater Community Forum, Richard Wadley

Comment:

He is pleased by the constructive approach adopted by affected landowners and the reciprocal attitude of Eskom representatives with regards to the proposed line. The most contentious section is between points C-D. Even the proposed alternative route, via point G, presents some difficulties, because of the proximity of boreholes and windmills along the Hermanusdoorns road between C-G. A landowner proposed an alternative route: from point D,



the line would run west along the northern boundary of farms 171, and then south-west down the common boundary of 171 and 181 until jouning the preferred route at the Hermanusdoorns road.

The direct C-D route will adversely affect several landowners and should not be pursued. The alternative, C-G-D is possibly viable depending how serious is the impact on boreholes (if at all) between C-G.

The third proposal along 171/181 appears promising, but not all of those affected landowners were present at the open day.

Response:

The above comment in addition to the comment from affected landowners resulted in the design of Route alternatives 3 and 4. Subsequently Route Alternative 4 is proposed as the route with least impact, and in spesific to landowners.

Malmanie Game Farm, Mr K Heiling, Malmanierivierdrift 199KQ

Comment:

Landowner comments that the line should follow the boundary along the farm fence and not along the road.

Response:

This property is not affected by the proposed Route Alternative 4.

PC Oosthuizen, Bergsig 196KQ Ptn 3

Comment:

The line should run on the boundary of the farm and not on the tar road in front of La Rive Hotel.

Response:

The proposed Route Alternative 4 is not adjacent to the R517 but follows an alignment further to the north, from Bulge Rivier sub running east to the Hermanusdoorns dirt road. This property is not directly affected by the proposed Route Alternative 4.

JH Vermeulen, Rietbokhoek 4KR Ptn 2

Comment:

During construction all vegetation cleared (branches etc.) should be removed; No fences to be cut; no unauthorised access to farm unless arranged; no new gates; access allowed between 8h00 and 16h00; new line to follow same corridor as existing line; no fires allowed on farm during construction; all waste to be removed after construction. Response:

Mitigation measures in line with the above are stipulated in the EMPr. Discussions between the landowner and the negotiator will address site-specific requirements such as the above. These agreements/requirements will be noted, as part of the option document.

Wally Meadon, Grootwater 176KQ

Comment: None

Response: Landowner not affected by the proposed Route Alternative 4.

JJ van Heerden, Grootwater 176KQ Ptn 2; Kafferfontein 180KQ; Welgevonden 180KQ

Comment:

This is rented property that will be impacted on by the Route Alternative 2. The main activity is hunting and the power line will adversely affect this property.

Response:

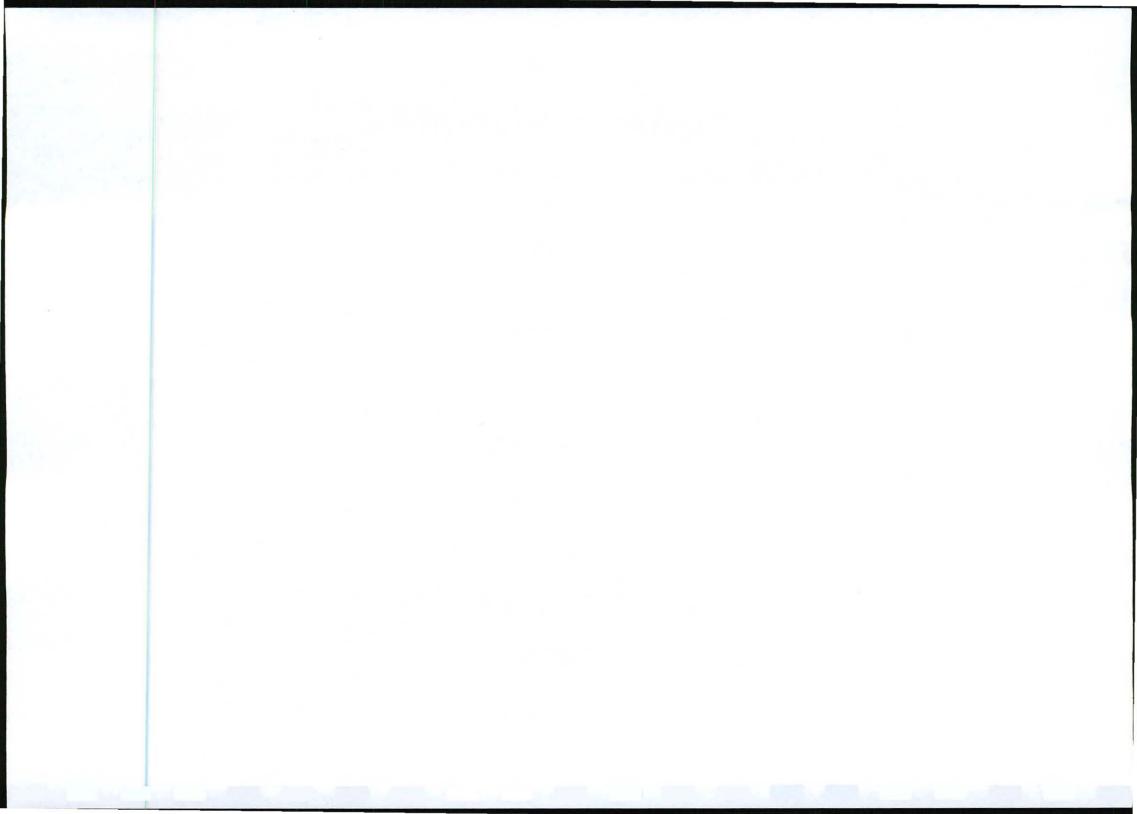
Subsequent to the open day Route Alternative 3 and 4 were proposed of which Route Alternative 4 is the preferred option. This property is not affected.

CL Pienaar, Kafferfontein 180KQ Ptn 1 and 2

Comment:

Borehole etc. to be adversely affected. Route alternative 2 preferred.

Response:



Subsequent to the open day, Route Alternative 3 and 4 were proposed of which Route Alternative 4 is the preferred option. This landowner is not affected by the proposed route.

JJ Nel, Grootwater 176KQ

Comment:

Line should not impact on boreholes; any damage to areas cleared should be repaired and revegetated.

Response:

Mitigation measures as the above are stipulated in the EMPr. Subsequent to the open day, Route Alternatives 3 and 4 were proposed of which Route Alternative 4 is the preferred option. This landowner is not affected.

Stoffel Snyman/ Leon Jacobs, Jacobshoogte (Consolidated from Brakfontein 15KR ptns 3,4 and Dwarsfontein10KR ptns 1)

Comment:

It is recommended that the new power line be constructed adjacent to an existing line to the south of the dirt road between Dorset substation and Visqat.

Response:

Route Alternative 4 is proposed to follow the above recommended alignment.

GJP Buys, Visgat 64KR

Comment:

It is recommended that the new power line be constructed adjacent to an existing line on the dirt road from Dorset substation towards Visgat.

Response:

Route Alternative 4 is proposed to follow the above recommended alignment.

2.1.4 Written Comment received

(Refer to Appendix E7 for copies of the comment)

Man and Maya Oosterhoff: Leopard Leap Lodge, Donkerhoek 615LQ

Comment:

The necessity of the project is not disputed, but they urge Eskom to implement the project with the lowest possible impact on the still unspoiled and pristine Waterberg Area along existing roads and/or other existing infrastructure. Also to take an upgrade of the existing lines into consideration to avoid new construction works that will affect the bushveld.

Response:

The existing infrastructure could not be upgraded to provide the needed supply. The design of the Route Alternatives took all environmental aspects into account. Refer to the specialist reports done on the status of the fauna and flora, the impact on birds as well as the status of heritage.

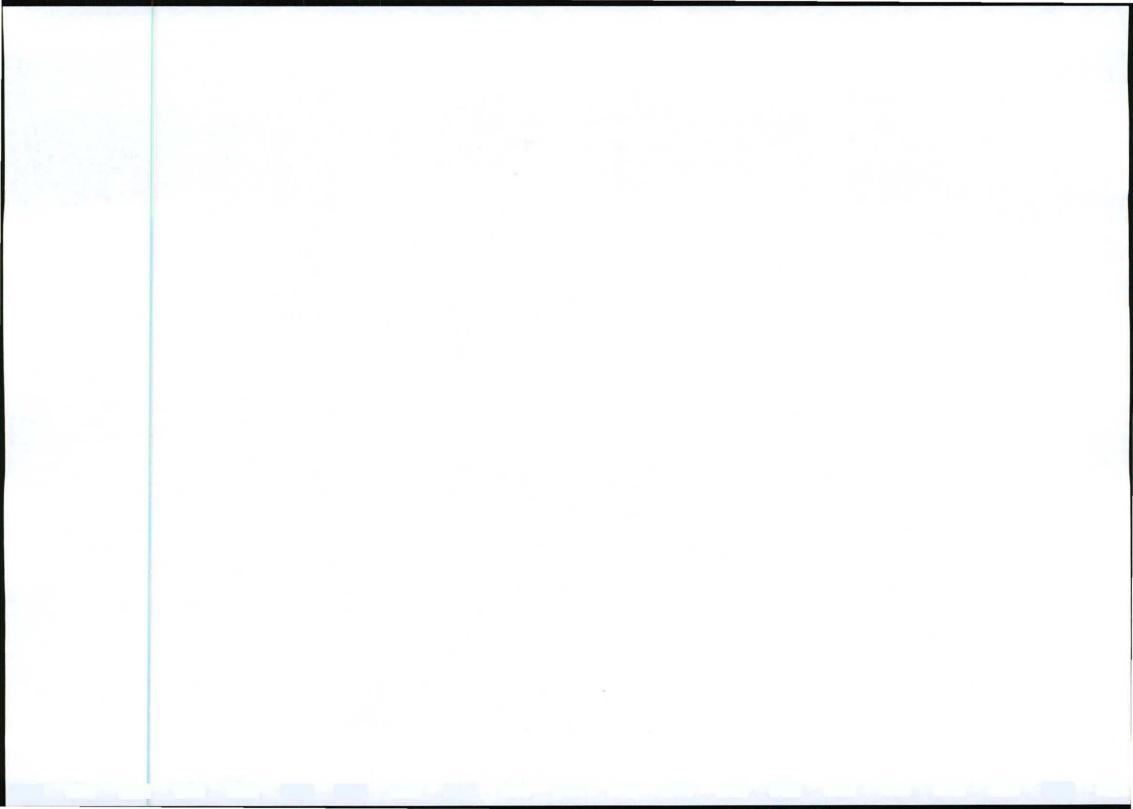
Waterberg Nature Conservancy

Comment:

The Waterberg Nature Conservancy is a voluntary organisation of (mainly) landowners in the Waterberg who share an interest in conservation issues. It is not a geographic entity, although its 65 members (including Welgevonden and Lapalala) own a total of over 160 000 ha on the Waterberg Plateau and employ about a thousand people.

Response:

The EAP took note that the project might affect members of the Waterberg Nature Conservancy. The Conservancy is included as stakeholder in the public participation process.



Eskom Transmission: Land Management

Comment:

Eskom Transmission informs that an Eskom Transmission (Tx) vacant servitude is affected by the proposed project. Eskom Tx will raise no objection to the proposed EIA provided that Eskom Tx's rights and services are acknowledged and respected at all times. Before any construction work commences in the vicinity of Eskom Tx's services, a formal application must be submitted to Eskom Tx.

Response:

Noted. Comment forwarded to Eskom Distribution for their implementation.

Department of Roads and Transport: Environment

Comment:

The Department requested to be notified of public meetings. Should any road under their jurisdiction be crossed then the Roads Agency Limpopo (RAL) should be contacted to establish their requirements.

Response:

The department is on the Register of IAPs and as such notified of all actions regarding public participation. In addition RAL has been notified of the project. The National Road P198/1 (R33), and the Provincial Roads P84/1 (R517); and other roads D1882; D1005; and D1162 are affected by the proposed route servitudes.

It is expected that Eskom Land and Rights will apply for exemption from some of the requirements. The specific requirements from RAL should be obtained.

Limpopo Department of Economic Development, Environment and Tourism: Environmental Impact Management

Comment:

The Provincial Department acknowledges receipt of a copy of the application that is submitted to DEA (Dept of Environmental Affairs). Comments will be provided after the submission of the draft Basic Assessment Report. *Response:*

Noted.

Adam Gunn: Mogolriver Game Farm (Pty) Ltd/ Mokolo River Nature Reserve

Comment

Mr. Gunn requests more information and maps for the proposed projects. According to him the logical route of least environmental impact is along existing infrastructure (roads and electricity lines) and away from sensitive areas and ecosystems such as rivers.

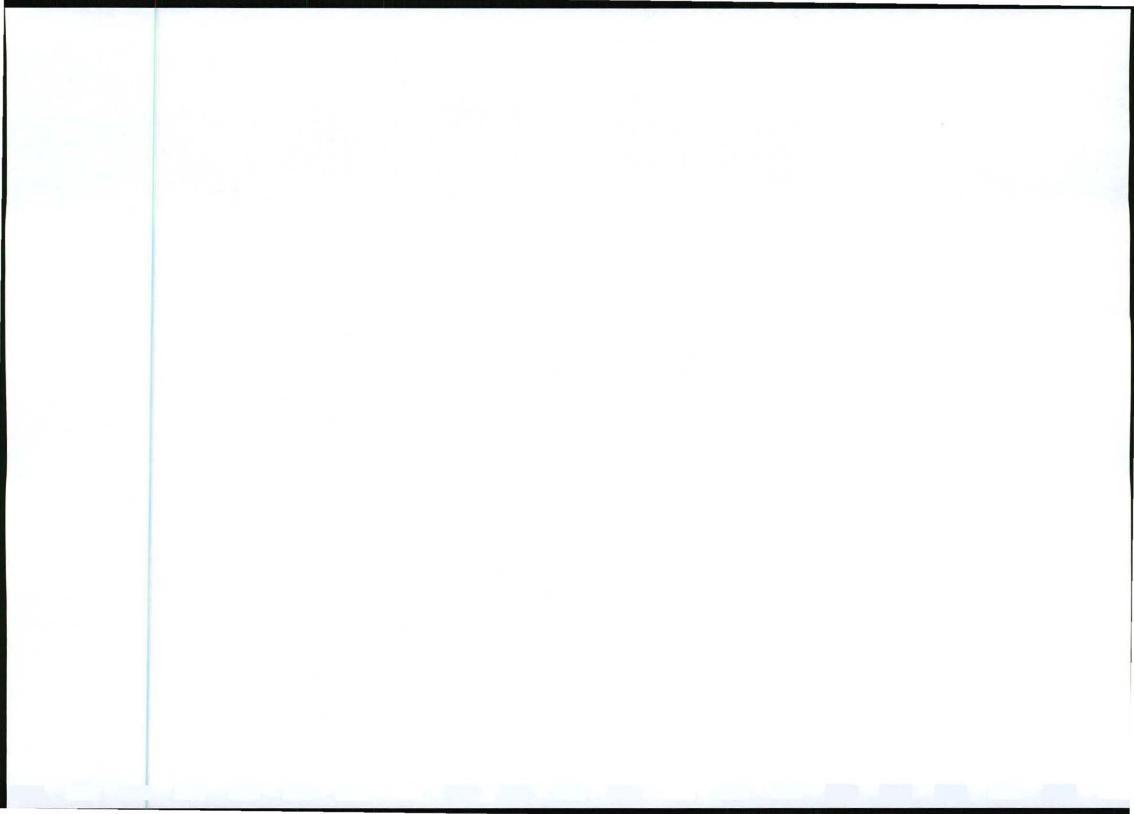
Response:

Maps were provided to Mr Gunn. Route Alternatives 1 and 2 were proposed to run mostly along roads. Upon further investigation these routes impacted significantly on landowners for certain sections of the routes. Subsequently, Route Alternatives 3 and 4 were proposed as a result of discussions with landowners in the project area. It was recommended to run the line mostly on the chosen roads, but to deviate along farm borders for a few sections of the route.

Subsequent comment:

Mr. Gunn confirmed that the "preferred alternative" (options 3 and 4) should not go through Mokolo River Nature Reserve (that is adjacent to the Bulge rivier substation site to the northern side of the R517). Mokolo River Nature Reserve is a sensitive area and one which is in the final stages of being declared as a NEMPA protected area. In addition, options 1 and 2 follow the principle of placing the lines along the route of least environmental impact ie: next to the road and following existing infrastructure. Options 1 and 2 must therefore be the best options from an environmental perspective.

Response: The team responsible for this EIA had a meeting with the directors of Mokolo River Nature Reserve on site and agreed on a more sensitive alignment for the power line. This is reflected in the alignment of Route Alternative 4 traversing on the borders of the Mokolo River Nature Reserve. They confirmed their requirements with the negotiator for the project.



Michiel & Issabella Van Baalen- Kerklaan, Ama Amanzi Game Lodge (Pty) Ltd, Goudfontein 171KQ RE

The owners officially protested against the line as proposed by Route Alternative 1.

Response:

Noted.

KP Van der Walt & AC Greyling, Ruimtevreug Boerdery Edms Bpk, Steenbokfontein 9KR Portions 1,3

Comment

Requested information on the servitude width and the compensation.

Response:

Eskom Distribution compensates for a servitude of 31m wide. The servitude will be registered which provides Eskom with the rights to construct and maintain a power line on the applicable property. The applicable land is therefore not purchased. All normal activity on the farm/land can continue as usual. The power line will be approximately 19 m above ground level and is therefore "giraffe-friendly". Pylons will be placed approximately 18m from the road reserve-this will be confirmed during the negotiations with landowners.

Subsequent comment:

The landowner objected to the placement of the power line on his property (portion 3) to the southern side of the road (near Visgat). He prefers the power line to the north of the road adjacent to the existing power line and road. *Response:*

The alignment is altered to run on the northern side of the road over portion 3. The specific circumstances will be discussed with the landowner on site and a sensitive and accommodating placement will be finalised with him.

LD Schmutz, Hannover 181KQ

Comment:

Mr Schmutz farms with game and indicates that any future activities for eg the moving of fences should be planned not to result in a loss of game. He requests clarity regarding the portions of Hannover that are affected by the proposed route.

Response:

The requirements of landowners (as above) should be stipulated in the option document that will be signed upon successful negotiations with the affected landowners. All comment/requirements received during the EIA will be submitted to the negotiator for the project.

Both sides of the Hermanusdoorns – Witfontein road (a corridor) are being investigated for the proposed power line from Bulge sub to Dorset sub. At the time of the compilation of the draft BAR, Alternative 4 is submitted as the final proposed route and is to the southern side of the road.

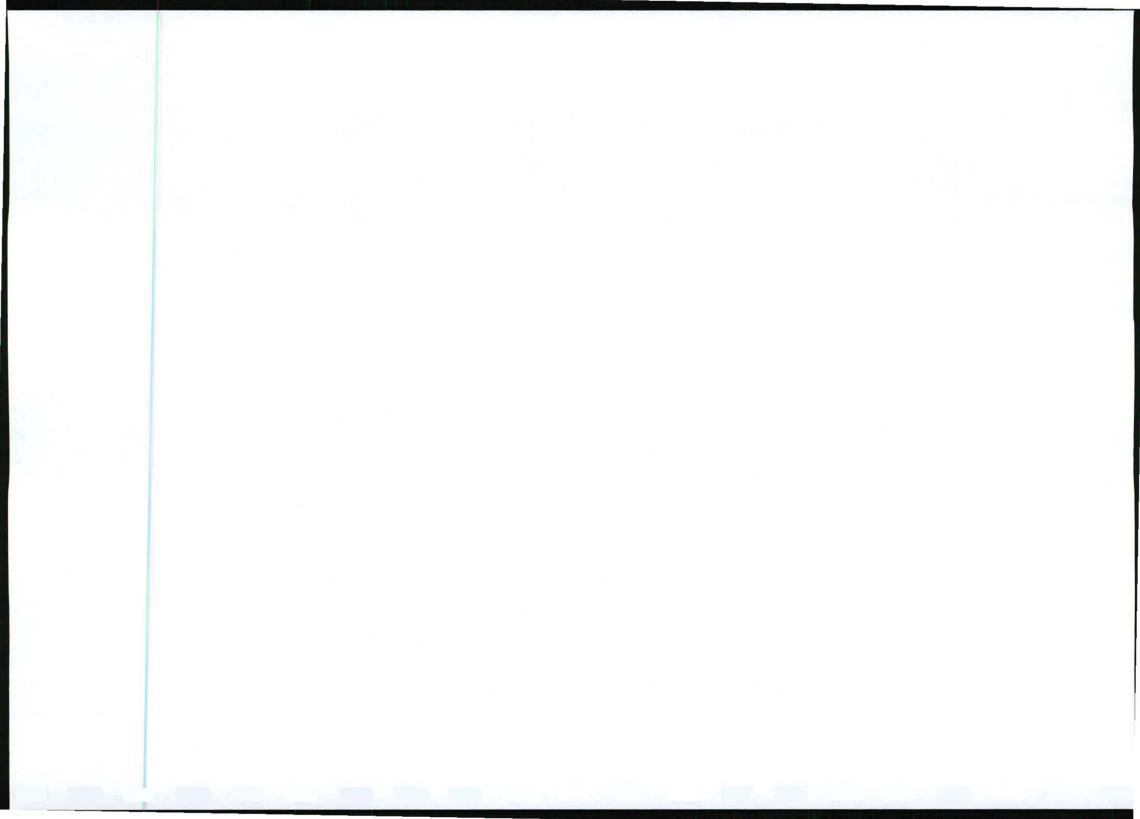
Elana Greyling

Comment:

- 1. When has the Bulge rivier sub been built? Who did the public participation?
- 2. Please confirm the alternative routes.
- 3. What is the attitude of the applicant to the fact that the project is within a protected area?
- 4. Is this project in any way connected to the solar project that is planned in this area?
- 5. Where were the notifications posted?

Reply:

- 1. The construction of the Bulge rivier substation has been authorised by the Department of Environmental Affairs, but has not been constructed yet. The details thereto can be obtained from the Department or from Eskom Distribution Northern Region (the applicant).
- 2. At the time of the above comment, two alternatives were proposed and investigated. In line with feedback from landowners and IAPs, another 2 alternatives were investigated.



- 3. The construction of the project is needed to strengthen the electricity network in the broader area. Outages in the network occur due to the fact that feeders exceed the maximum length. It is therefore of cardinal importance to split some of the rural lines to prevent outages. A need has been identified to strengthen several reticulation feeders between Vaalwater and Ellisras. The applicant is aware of the fact that the proposed project is within the Waterberg Biosphere Reserve. The EIA investigated the Eskom power line project taking the zonation of the Waterberg Biosphere Reserve into consideration. The route alternatives were designed to limit impact to the Waterberg Biosphere Reserve. The majority of the proposed project falls in Transition Zone 2 where infrastructure could be allowed. In fact, as mentioned, to limit impact to the WBR, approximately 50% of the proposed power line route runs on the border of the Transitional Zone of the Waterberg Biosphere Reserve.
- 4. This EIA project is not directly connected to the solar project. Independent power producers are in contact with Eskom to supply the grid.
- 5. On 2 December 2010 the onsite-notices were placed at several locations in the project area. A notification was placed in the newspaper on 10 November 2010. Letters of notification were posted, emailed and faxed on 5 November 2010. Invitations to the public information day were submitted on 10 February 2011 to all the IAPs and landowners. On 26 June 2011 a letter (with maps of the routes) was submitted to all affected landowners to confirm the routes with them and request comment thereto. In addition to the above mentioned, one-on-one discussions are being conducted with landowners to establish their requirements.

Daan Erasmus, Councillor (ANC) Lephalale Municipality

Comment:

Mr. Erasmus is the owner of Manamane 201 KQ and objects that a servitude, that is in existence for 40 years, is not being used for the new power line. He is of the opinion that these landowners had 40 years to plan their activities around this servitude and now a new servitude is being proposed. This new servitude will be detrimental to landowners.

Response:

According to information received from the applicant, the "servitude" that is being referred to had not been authorised. Organised Agriculture has objected to this route. The mentioned servitude is from Warmbaths to Ellisras and is not feasible for this current EIA project that investigates a connection between Bulge rivier sub and Dorset sub.

Department of Rural Development and Land Reform: Land Claims Commissioner Limpopo

The Department responded that there is a restitution land claim lodged on the properties of Bulge rivier 198KQ Ptns 2,16; Bergsig 202KQ Ptn 4; Hermanusdoorns 600KQ Ptns 1; Hermanusdoorns 205KQ Ptn 0; Hermanusdoorns 204KQ Ptn 5 and no information is available on the other affected properties.

Response:

Noted.

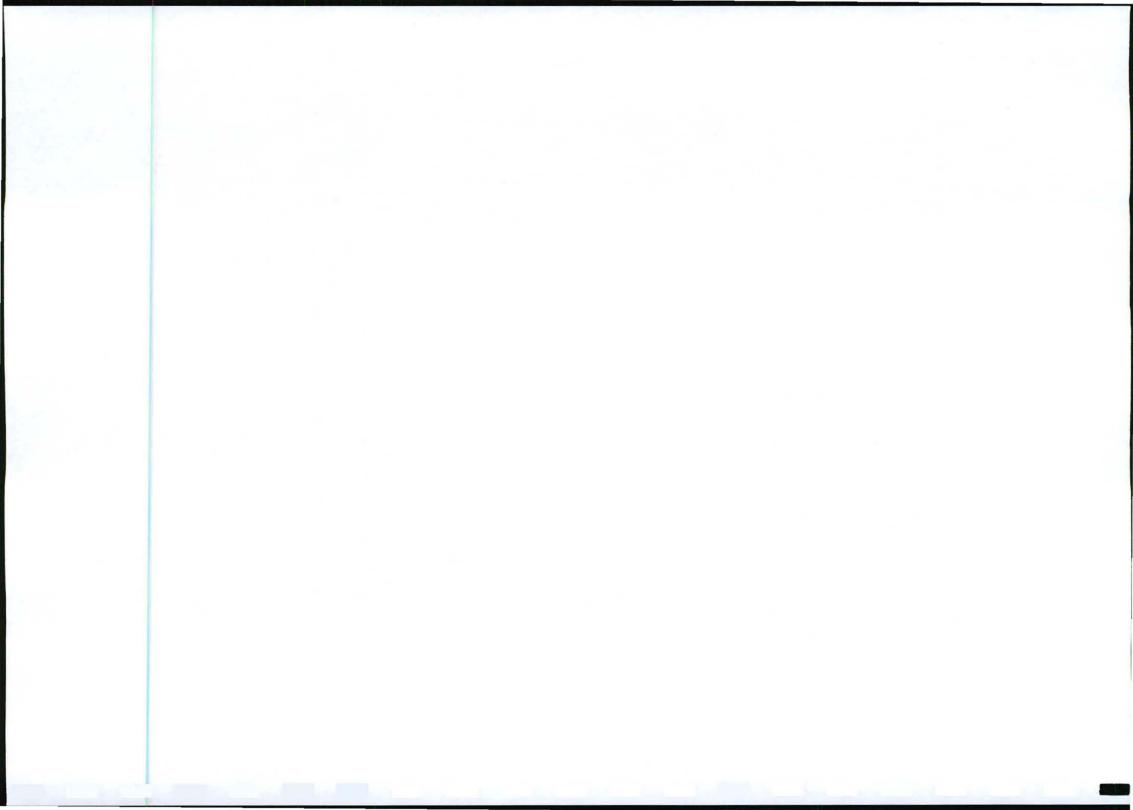
Eskom will need to obtain a servitude of 31 meters wide to construct the power line. The power line will be constructed on the centre line of the servitude. Servitude rights for a servitude in general terms will be obtained by means of an "Option to Acquire a Servitude". This implicates that a servitude will be registered which provides Eskom with the rights to construct a power line and maintain the line over the applicable property. Compensation is paid to the landowner for the servitude rights and payment for the servitude will be made upon registration of the servitude. The property in question (servitude) will therefore not be purchased and the registered owner will receive compensation for the use of the servitude. A thorough public participation process and negotiations with affected landowners are in process.

Chris Allanson, Hermanusdoorns 204KQ Portions 4&5

Comment:

Concerns

1. Aesthetically, the line will be extremely ugly



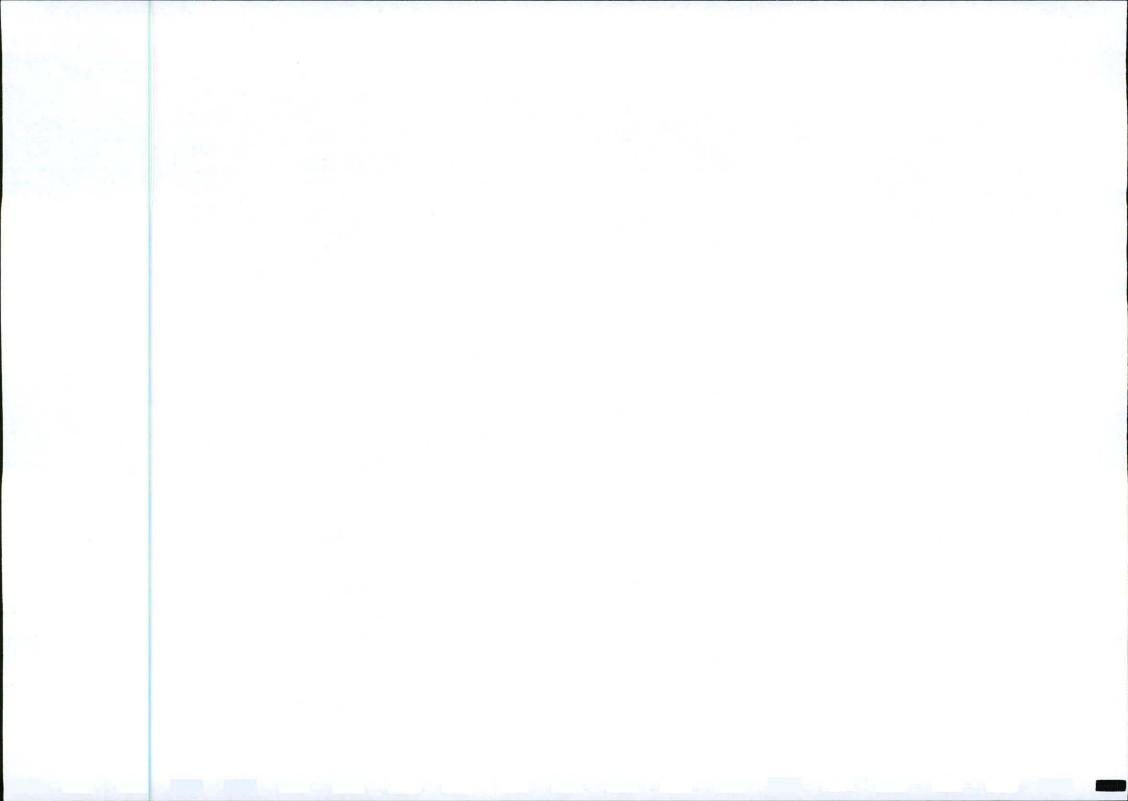
- 2. Destruction of protected indigenous trees i.e. Tamboti
- 3. Question the need for +- 18m pylons rather than say 10 high
- 4. Question the safety of wild game with the 7 or 8 stay wires required for each pylon
- 5. Question why the proposed line will cross to the East side of the Witfontein road at Hermanusdoorns and then cross back West at Grootwater. Favouritism to certain landowners?
- 6. The gravel road will deteriorate during the construction period
- 7. Concern over possible veld fires started by construction gangs cooking & smoking

Recommendations

- 1. Reduce the height of the intended pylons
- 2. Protected trees should be "topped" rather than destroyed
- 3. Where passing through game areas the entire line should be fenced off and that portion of land should be purchased by Eskom
- 4. Maintain the position to the West side of the Witfontein road rather than crossing the road twice
- 5. The gravel road must be properly maintained during the construction period and handed over in a good condition on completion
- 6. Ban on- site cooking and smoking during the construction period *Response:*
- 1. It is proposed to use a single steel pole to substantially limit the visual impact of the line. The design of the power line has to adhere to strict safety measures. The pylons for a power line are between 18 to 30 meters high, depending on the terrain and existing land use. The flatter the terrain, the shorter the pylons to be used. The conductor attachment height on a pole is 13m (for 20m intermediate poles) and more for longer poles, depending on the pole length. Ground clearances will adhere to OSH-Requirements of 6.3m and 7.5m. The line will have to be approximately 19 m above ground level to be "giraffe-friendly". Where the site is relatively flat, single pylons without stays will be used, except for where the power line has to change direction. Stays will not be used except at turns in the route. Should stays be needed then the stays will be at a 45° angle to the pylon and planted 21meters from the pylon into the ground.
- 2. Mitigtion measures to limit impact to natural habitat and in specific protected habitat is included in the EMPr and discussed in the section on the expected impacts of the project. The procedures for vegetation clearance and maintenance within servitudes, as prescribed by Eskom, must be implemented. Selective bush clearing must take place, i.e. indigenous vegetation, which does not interfere with the safe operation of the structure, should be left undisturbed. In addition, various species of indigenous trees and bush are protected by law in terms of the National Forests Act No 84 of 1998, which stipulates that it is necessary to obtain a permit from the relevant provincial office of the Department of Agriculture, Forestry and Fisheries in order to cut them.
- 3. Game farms, nature reserves, and other reserves managed by the state brings about new challenges to Eskom Holdings such as restriction of access, safety of Eskom staff and of the game, and the interaction of game and electrical infrastructure. Mitigation measures to limit impact to game farms etc are proposed in the EMPr and in this report. Any specific requirements regarding access, should be negotiated with Eskom.
- 4. Eskom relies on the goodwill of landowners and interested and affected parties to obtain servitudes for power lines. Hence, landowners are consulted during the construction of new power lines. Ultimately, the final decision between the Route alternatives should be made on the accumulative weight of all parameters such as feedback from public participation, land tenure issues, construction costs, ecological sensitivity etc.
- 5. Mitigation measures to limit erosion are included in this report and in the EMPr. Landowners should in addition identify their specific requirements to be included in the option document that stipulates their conditions for agreement to the servitude.
- 6. Fire protection standards are included in the EMPr.

Michiel & Issabella Van Baalen- Kerklaan, Ama Amanzi Game Lodge (PTY) LTD, Goudfontein KQ171 Re

They strongly protest, to alternative 1 (and 3), as the line will be along the entire left side (from N to S) of their farm and therefore have an extreme negative impact on their businesses and the value of the farm. The line will make a



big part of their farm useless, since the farm is narrow and they are developing the farm into a game lodge. They market mainly to international tourists and they do not expect power lines in the bush.

Furthermore it will impact their other business, as they grow cucumbers and green peppers, which they comment will grow significantly less underneath the power line. They are worried about the health risks, since it is proven in studies all over the world, that it is very unhealthy to live underneath a power line.

As the line will have a big negative influence on the revenue of the lodge and vegetables, it will also have an impact on employability in the area as they will not be able to employ more people.

Questions:

- 1. Which type of pole will be used?
- 2. How high is the voltage of the lines?
- 3. How far is the magnetic field extending?
- 4. Is there an alternative route to the 2 existing ones possible?
- 5. When is the final route determined?
- 6. Is the landowner compensated for the land which is used and how much?
- 7. What are the known health risks of living and farming in proximity to a power line?

Response:

- 1. A monopole steel structure
- 2. The line is a 132kV power line
- 3. Response to 3 and 7:
- There has been several debates about the biological effects of exposure to electric and magnetic fields (EMF)
 and their possible detrimental effects on human and animal health. However, after more than 20 years of
 research, it has not been conclusively demonstrated that any such detrimental effects exist.
- It is widely agreed by responsible experts that research should continue and in 1990 a National EMF forum, linked to the International EMF Research Coordinators Group, was established, with Eskom as a member. Activities in South Africa, particularly exposure guidelines, are now monitored by a Working Group of the South African Forum for Radiation Protection.
- Electric fields of the intensity encountered close to transmission power lines, cannot damage crops. Studies on the effects of EMF on farm animals have also concluded that they have no influence on the reproduction, meat, milk and egg production or the development of their offspring.
- Some of the epidemiological studies in children with leukemia have suggested that there may be an association between some types of cancer in children living close to transmission power lines. Further, it has not so far been possible to prove conclusively that magnetic fields can cause cancer or promote cancer growth.
- In 1998, a working group of experts gathered by the EMF RAPID Program met to review the research that has been done on the possible health risks associated with EMF. This group reviewed all of the studies that have been done on the subject, and then voted on whether they believed that exposure to EMF might be a health risk. A majority of the scientists on this working group voted that the epidemiology studies of childhood leukemia provide enough evidence to classify EMF as a "possible human carcinogen". Other products also classified as possible carcinogens by the same group, are coffee and saccharin.
- In the Northern Cape Eskom has constructed nests for vultures above the 400kV structures and clear of the
 dangerous hardware. The vultures took up their new nests and managed to breed successfully with no
 biophysical harm to their hatchlings. The nests are approximately 1 metres from the hardware of the
 transmission power lines.
- The above studies indicate that transmission lines with high voltages will not impact negatively on human or animal health. In summary, there is no evidence that distribution power lines with voltages of 132kV and lower will impact negatively on human or animal health. For this project, lines of 132kV will be constructed. A distribution power line will never be closer than 15,5 metres from the nearest structure. In addition, according to current knowledge, no harmful effects will result from living next to mini-substations/substations.
- 4. Two additional routes have been investigated. The final proposed route is alternative 4 that will impact on the northern border of Goudfontein KQ171 Re.
- 5. The final route is recommended in this draft BA report, but will ultimately be decided and authorised after

