

**TERRESTRIAL ECOLOGICAL ASSESSMENT AS PART OF THE
ENVIRONMENTAL ASSESSMENT AND AUTHORISATION PROCESS
FOR THE PROPOSED 765kv TRANSMISSION LINE FROM THE KAPPA
SUBSTATION NEAR BREEDE RIVER TO THE GAMMA SUBSTATION
NEAR VICTORIA WEST, WESTERN CAPE PROVINCE**

APPENDIX B

Field Assessment Results

Scientific Aquatic Services CC
CC Reg No 2003/078943/23
Vat Reg. No. 4020235273
91 Geldenhuis Road
Marlvern East Ext 1
2007
Tel: 011 616 7893
Fax: 011 615 6240
E-mail: admin@sasenvironmental.co.za



Acronyms

CBA - Critical Biodiversity Area

CREW - Custodian of Rare and Endangered Wildflowers

EIS - Ecological Integrity Score

NBA - National Biodiversity Assessment

PES - Present Ecological State

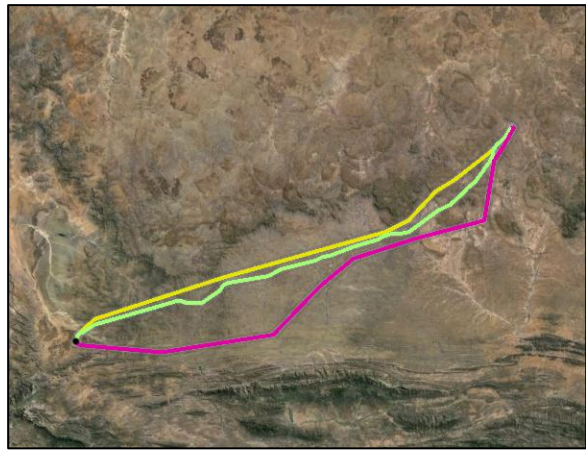

QDS - Quarter degree square

SCC - Species of Conservation Concern

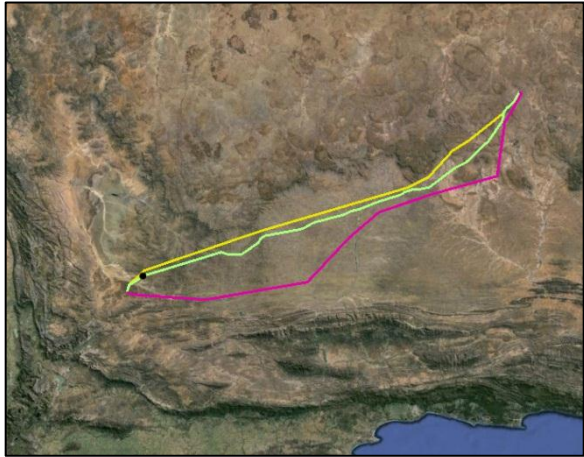

SKEP - Succulent Karoo Ecosystem Program

WCNCLAA - Western Cape Nature Conservation Laws Amendment Act

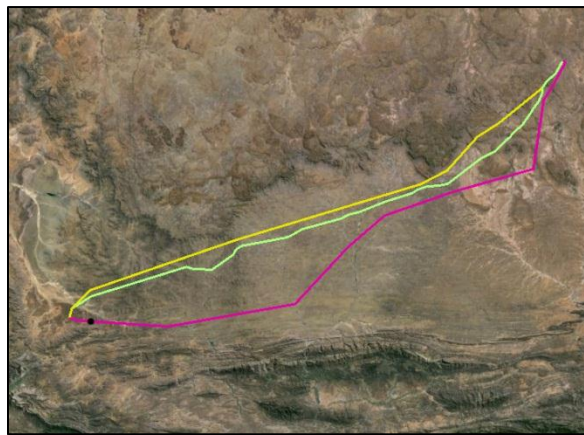



Segment number	1
Located along option number 33° 5'41.54"S 20° 1'7.98"E	1 
National Protected Areas Expansion Strategy (2008)	Near focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Moderately protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Tanqua Karoo
Number of SCC listed for the QDS	7 species
Nearby CREW species	7 species
SKEP significance	Vegetation Group - Lowland Succulent Karoo Located within a center of endemism
Habitat description 	Open veld considered to be in a high PES, with high floral diversity and abundance.
Dominant floral species	<i>Ruschia spinosa</i> (Protected – WCNCLAA) <i>Sarcocaulon crassicaule</i> <i>Tripteris sinuata</i> <i>Galenia africana</i> <i>Moraea brachygyne</i> (Protected – WCNCLAA) <i>Eriocephalus ericoides</i> <i>Tetragonia fruticosa</i> <i>Galenia fruticosa</i>
Significance in terms of faunal habitat and migration	Continuous open veld would provide habitat for faunal species that migrate or forage within a large area.
EIS	5





Segment number	2
Located along option number 32°59'37.88"S 20° 9'15.33"E	2 
National Protected Areas Expansion Strategy (2008)	Near focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Moderately protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Tanqua Karoo
Number of SCC listed for the QDS	7 species
Nearby CREW species	7 species
SKEP significance	Vegetation Group - Lowland Succulent Karoo Located within a region of endemism
Habitat description 	Very little anthropogenic activity noted. High PES, with high floral diversity and abundance.
Dominant floral species	<i>Galenia africana</i> <i>Ruschia spinosa</i> (Protected – WCNCLAA) <i>Tripteris sinuata</i> <i>Pteronia pallens</i> <i>Moraea brachygyne</i> (Protected – WCNCLAA)
Significance in terms of faunal habitat and migration	Continuous open veld would provide habitat for faunal species that migrate or forage within a large area.
EIS	5

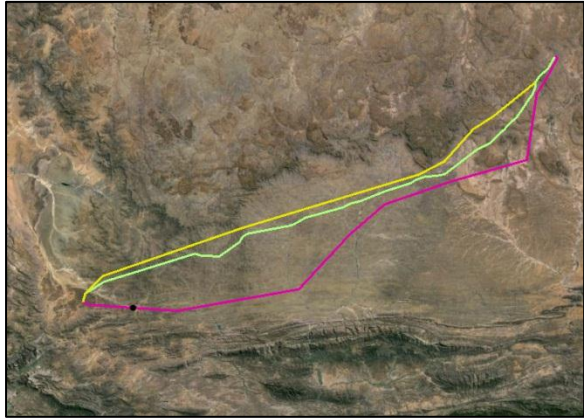



Segment number	3
Located along option number 33° 7'53.77"S 20° 9'43.51"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Moderately protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Tanqua Karoo
Number of SCC listed for the QDS	7 species
Nearby CREW species	7 species
SKEP significance	Vegetation Group - Lowland Succulent Karoo Located within a region of endemism
Habitat description 	Open veld with elevated ridges within a Private Game Lodge, with moderate floral diversity and abundance.
Dominant floral species	<i>Ruschia spinosa</i> (Protected – WCNCLAA) <i>Tripteris sinuata</i> <i>Lycium cinereum</i> <i>Chrysocoma ciliata</i> <i>Pentzia incana</i> <i>Galenia africana</i> <i>Pteronia pallens</i>
Significance in terms of faunal habitat and migration	The Game Lodge is fenced off therefore will restrict movement of larger mammal species. Open veld within the reserve and surroundings would provide foraging habitat for several faunal species. Rocky ridges will provide habitat for reptiles and smaller mammal species.
EIS	4

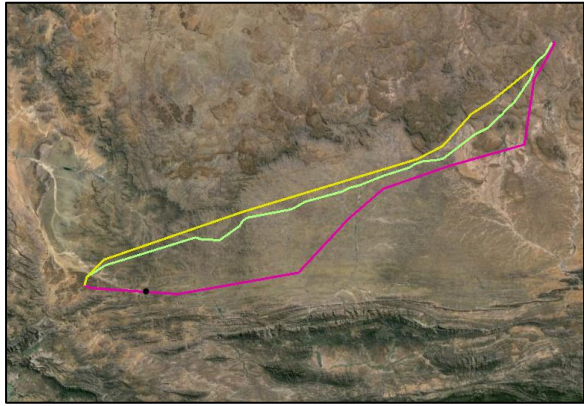



Segment number	4
Located along option number 33° 7'41.50"S 20° 17'49.45"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Moderately protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Tanqua Karoo
Number of SCC listed for the QDS	7 species
Nearby CREW species	7 species
SKEP significance	Vegetation Group - Lowland Succulent Karoo Located within a region of endemism
Habitat description 	Undulating open veld, with high floral diversity and abundance. Some anthropogenic activity noted, however can still be considered in high ecological condition.
Dominant floral species	<i>Ruschia spinosa</i> (Protected – WCNCLAA) <i>Galenia africana</i> <i>Chrysocoma ciliata</i> <i>Pteronia pallens</i> <i>Eriocephalus ericoides</i> <i>Trachyandra divaricata</i> <i>Tripteris sinuata</i>
Significance in terms of faunal habitat and migration	Continuous open veld would provide habitat for faunal species that migrate or forage within a large area.
EIS	4

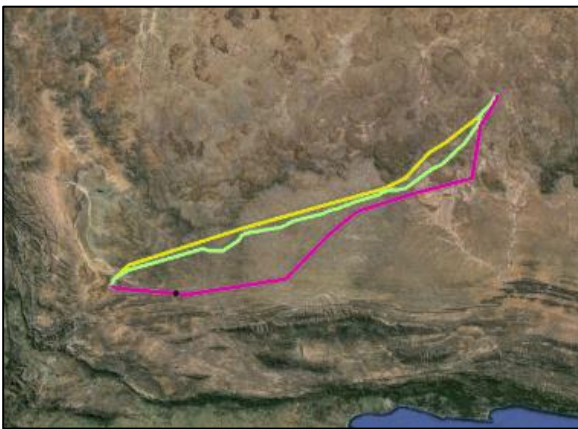





Segment number	5
Located along option number 33° 8'54.00"S 20° 22'32.25"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Moderately protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Tanqua Karoo
Number of SCC listed for the QDS	15 species
Nearby CREW species	7 species
SKEP significance	Vegetation Group - Lowland Succulent Karoo Located within a region of endemism
Habitat description 	Historical disturbance has resulted in erosion and areas where vegetation cover has been lost completely.
Dominant floral species	<i>Lycium cinereum</i> <i>Chrysocoma ciliata</i> <i>Pteronia pallens</i> <i>Salsola aphylla</i> <i>Atriplex vestita</i> <i>Thesium triflorum</i> <i>Eriocephalus ericoides</i>
Significance in terms of faunal habitat and migration	Limited undisturbed faunal habitat within the section. Faunal species are likely to remain within surrounding more intact open veld.
EIS	3



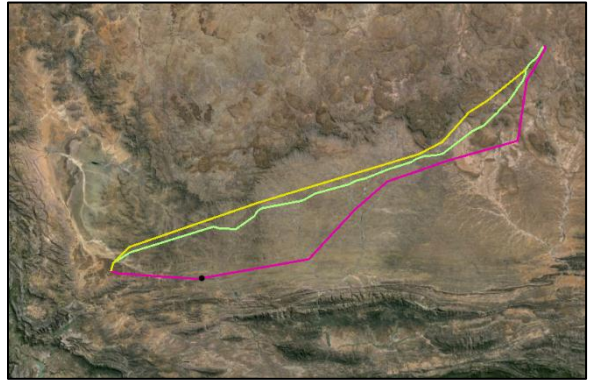

Segment number	6
Located along option number 33° 9'7.40"S 20° 27'40.53"E	1 
National Protected Areas Expansion Strategy (2008)	Located near a focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Tanqua Karoo
Number of SCC listed for the QDS	39 species
Nearby CREW species	5 species
SKEP significance	Vegetation Group - Lowland Succulent Karoo Located within a region of endemism
Habitat description 	Undulating open veld with a moderate floral diversity.
Dominant floral species	<i>Galenia namaensis</i> <i>Pteronia pallens</i> <i>Ruschia spinosa</i> (Protected – WCNCLAA) <i>Pentzia incana</i> <i>Eriocephalus ericoides</i> <i>Chrysocoma ciliata</i>
Significance in terms of faunal habitat and migration	May provide foraging habitat after sufficient rain, however fauna will most likely be restricted to surrounding areas with more intact vegetation and less anthropogenic activity.
EIS	3



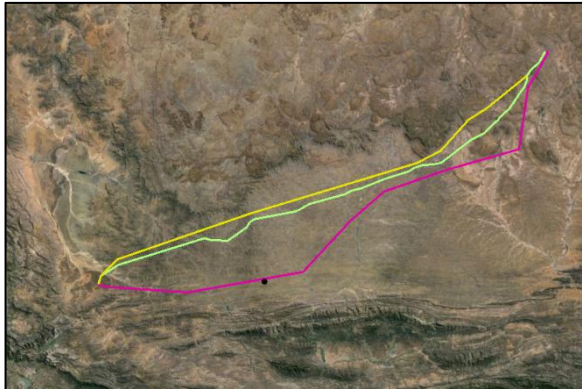

Segment number	7
Located along option number 33° 9'55.16"S 20° 35'8.94"E	1 
National Protected Areas Expansion Strategy (2008)	Located near a focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Koedoesberge Moordenaars Karoo
Number of SCC listed for the QDS	39 species
Nearby CREW species	5 species
SKEP significance	Vegetation Group – Upland Succulent Karoo Located within a region of endemism
Habitat description 	Open veld with isolated farming infrastructure. Floral diversity not considered significantly high if compared to species list provided for the vegetation type.
Dominant floral species	<i>Galenia namaensis</i> <i>Pteronia pallens</i> <i>Ruschia spinosa</i> (Protected – WCNCLAA) <i>Pentzia incana</i> <i>Eriocephalus ericoides</i> <i>Chrysocoma ciliata</i>
Significance in terms of faunal habitat and migration	Larger species may move through the area from time to time, however faunal species are expected to remain within surrounding areas with less transformation.
EIS	3

Segment number	8
Located along option number 33° 10' 53.63" S 20° 42' 55.26" E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Koedoesberge Moordenaars Karoo
Number of SCC listed for the QDS	39 species
Nearby CREW species	5 species
SKEP significance	Vegetation Group – Upland Succulent Karoo Located within a region of endemism
Habitat description 	Largely intact open veld with moderately high floral species diversity encountered on the plains. Elevated rocky ridges will provide niche rocky habitat for faunal and floral species.
Dominant floral species	<i>Galenia africana</i> <i>Colchicum coloratum</i> <i>Eriocephalus ericoides</i> <i>Chrysocoma ciliata</i> <i>Ruschia spinosa</i> (Protected – WCNCLAA)
Significance in terms of faunal habitat and migration	Faunal abundance expected to be low due to close proximity to the N1 Highway.
EIS	4





Segment number	9
Located along option number 33°10'11.99"S 20°43'30.32"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Koedoesberge Moordenaars Karoo
Number of SCC listed for the QDS	39 species
Nearby CREW species	5 species
SKEP significance	Vegetation Group – Upland Succulent Karoo Located within a region of endemism
Habitat description 	Over grazing evident within plains, with a slight increase in floral diversity on higher lying areas. Drainage line located near the area assessed, with a definite increase in woody tree species, however disturbance considered significant and therefore POC of SCC such as <i>Pelargonium denticulatum</i> considered to be low.
Dominant floral species	<i>Galenia africana</i> <i>Pteronia pallens</i> <i>Othonna rhamnoides</i> <i>Ruschia spinosa</i> (Protected – WCNCLAA) <i>Berkheya spinosa</i> <i>Malephora crassa</i> (Protected – WCNCLAA) <i>Thesium lineatum</i> <i>Aptosimum indivisum</i>
Significance in terms of faunal habitat and migration	Riparian habitat at drainage line will provide habitat for small mammal species and avifauna. Transmission line will likely be crossing over the drainage line and will therefore not encroach onto the riparian habitat, open space within surroundings will provide foraging habitat during construction.
EIS	3

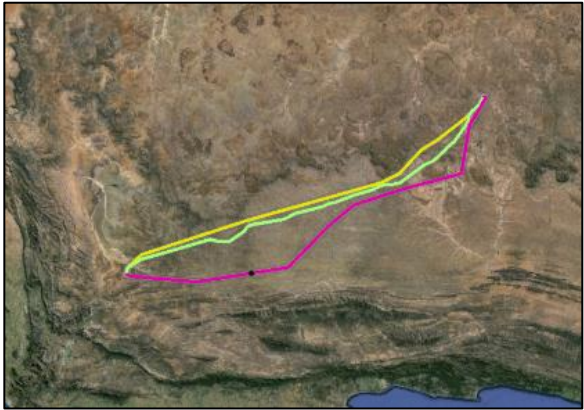



Segment number	10
Located along option number 33° 7'5.56"S 21° 16'14.77"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	1 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo Located within a region of endemism
Habitat description 	Plains with elevated rocky ridges. Grazing evident, moderate to high floral species diversity and abundance.
Dominant floral species	<i>Lycium cinereum</i> <i>Pteronia pallens</i> <i>Aptosimum indivisum</i> <i>Euphorbia mauritanica</i> <i>Carissa bispinosa</i> (Protected – WCNCLAA) <i>Searsia undulata</i> <i>Viscum capense</i> <i>Euphorbia stellispina</i> <i>Crassula deltoidea</i> <i>Septulina glauca</i>
Significance in terms of faunal habitat and migration	Section located near roads and farming infrastructure, therefore faunal diversity expected to be low with larger mammal species passing through from time to time.
EIS	3

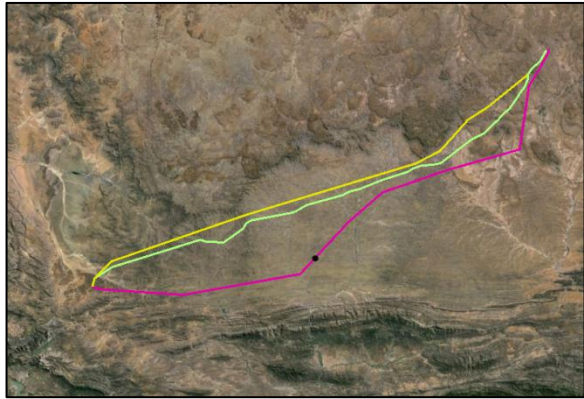



Segment number	11
Located along option number 32°45'11.20"S 21°20'31.26"E	2 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	1 species
CREW localities within QDS	5 species
SKEP significance	Vegetation Group – Nama Karoo Located within a region of endemism
Habitat description 	Plains dominated by <i>Stipagrostis ciliata</i> , with an increase in succulent shrubland on elevated ridges. <i>S. ciliata</i> is a valuable grazing grass and regarded an indicator of veld in good condition.
Dominant floral species	<i>Rhigozum obovatum</i> <i>Stipagrostis ciliata</i> <i>Stipogrostis obtusa</i> <i>Aristida diffusa</i> <i>Fingerhuthia Africana</i> <i>Enneapogon desvauxii</i>
Significance in terms of faunal habitat and migration	Faunal diversity expected to be high due to the limited anthropogenic activity within the section.
EIS	4

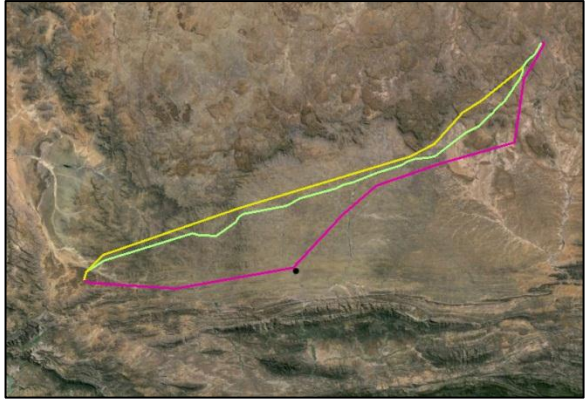



Segment number	12
Located along option number 33° 6'29.49"S 21° 12'44.74"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	2 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description	Vegetation sparse with little diversity. 
Dominant floral species	<i>Galenia namaensis</i> <i>Pteronia pallens</i> <i>Pteronia viscosa</i> <i>Rhigozum obovatum</i> <i>Gymnosporia buxifolia</i>
Significance in terms of faunal habitat and migration	Section in its present state does not provide foraging habitat, however after sufficient rain may become important. <i>Procavia capensis</i> (Rock Hyrax) encountered on koppies, considered Least Threatened.
EIS	3

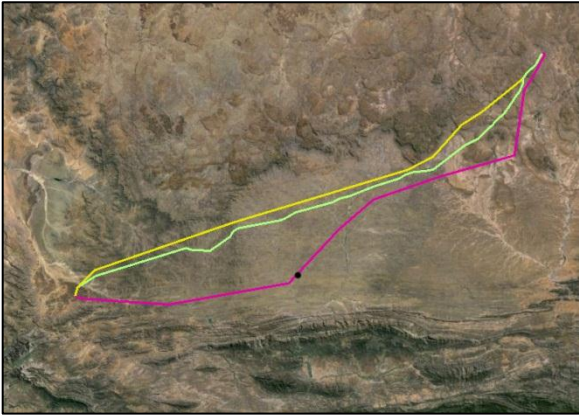



Segment number	13
Located along option number 32°57'59.99"S 21°40'33.73"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	11 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description	Significantly transformed with vegetation very sparse. 
Dominant floral species	<i>Lycium horridum</i> <i>Rhigozum obovatum</i> <i>Ruschia intricata</i> (Protected – WCNCLAA) <i>Stipagrostis ciliata</i> <i>Stipagrostis obtusa</i>
Significance in terms of faunal habitat and migration	Past disturbance considered significant, faunal diversity expected to be very low.
EIS	1




Segment number	14
Located along option number 33° 4'57.44"S 21° 34'49.15"E	1 
National Protected Areas Expansion Strategy (2008)	Located near a focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	1 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description	Overgrazing resulted in transformation of natural habitat. 
Dominant floral species	<i>Malephora crassa</i> (Protected – WCNCLAA) <i>Salsola aphylla</i> <i>Stipagrostis obtusa</i> <i>Eriosephalus ericoides</i>
Significance in terms of faunal habitat and migration	Close to N1 Highway and past disturbance considered significant, faunal diversity expected to be very low.
EIS	1

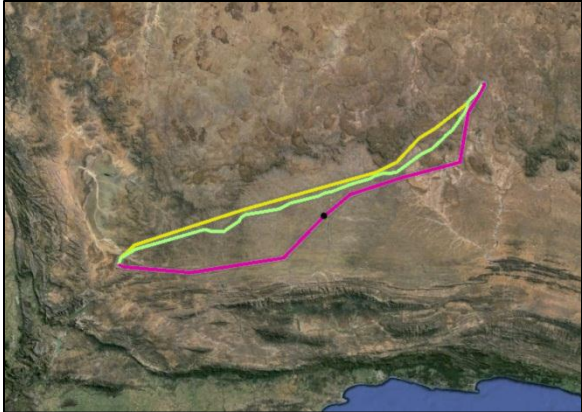



Segment number	15
Located along option number 33° 0'53.36"S 21°37'41.50"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	11 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Rocky outcrops dominated by only a few shrub species with lower lying areas dominated by grass. Veld condition not considered very high.
Dominant floral species	<i>Rhigozum obovatum</i> <i>Erioccephalus ericoides</i> <i>Berkheya spinosa</i> <i>Chrysocoma ciliata</i> <i>Pteronia viscosa</i> <i>Stipagrostis ciliata</i> <i>Stipagrostis obtusa</i>
Significance in terms of faunal habitat and migration	Railway line, fences and roads nearby will restrict faunal movement. Habitat diversity for faunal species considered to be low within this section.
EIS	3

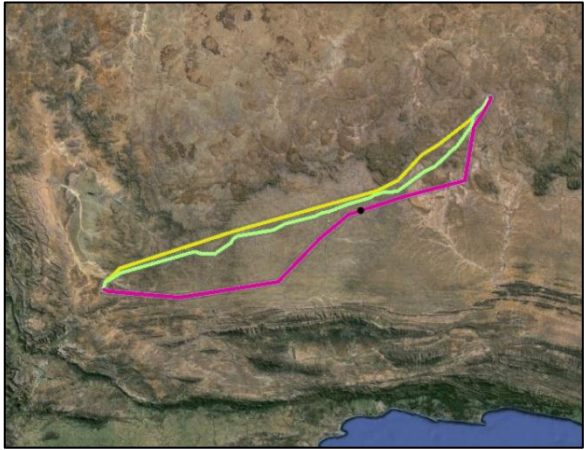



Segment number	16 No access during field survey
Located along option number 32°55'2.50"S 21°43'33.04"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	11 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description	N/A
Dominant floral species	N/A
Significance in terms of faunal habitat and migration	N/A
EIS	N/A

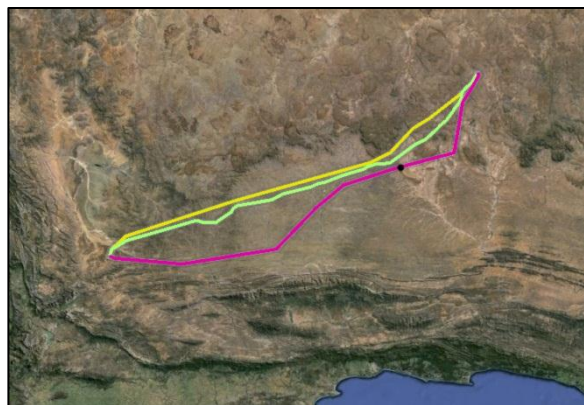



Segment number	17
Located along option number 32°44'1.64"S 21°56'19.99"E	1 
National Protected Areas Expansion Strategy (2008)	Located within a focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located near a CBA
Vegetation type (Mucina and Rutherford 2006)	Southern Karoo Riviere
Number of SCC listed for the QDS	0 species
Nearby CREW species	1 species
SKEP significance	Vegetation Group – Nama Karoo
Habitat description	Overgrazed, with low floral species diversity.
	
Dominant floral species	<i>Rhigozum obovatum</i> <i>Erioccephalus ericoides</i> <i>Stipagrostis ciliata</i> <i>Stipagrostis obtusa</i>
Significance in terms of faunal habitat and migration	Highly unlikely to be used for grazing by wild animals due to overgrazing.
EIS	1

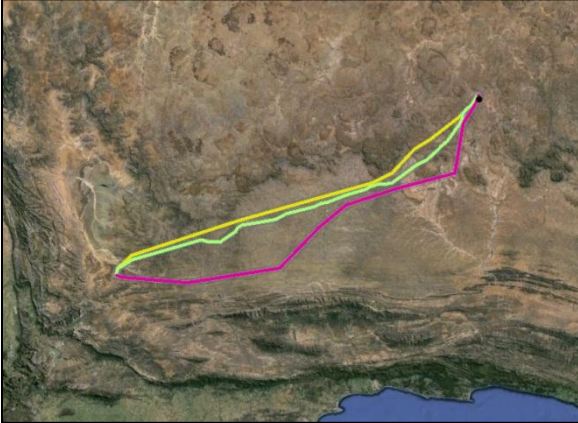



Segment number	18
Located along option number 32°32'15.36"S 22°17'14.34"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located near a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	1 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Next to N1 Highway, therefore transformation evident due to edge effects. However, vegetation is expected to become more intact further away from the highway.
Dominant floral species	<i>Lycium cinereum</i> <i>Searsia undulata</i> <i>Rhigozum obovatum</i> <i>Fingerhuthia africana</i> <i>Drosanthemum</i> sp. (Protected – WCNCLAA)
Significance in terms of faunal habitat and migration	Limited faunal activity due to close proximity to the N1 Highway.
EIS	3

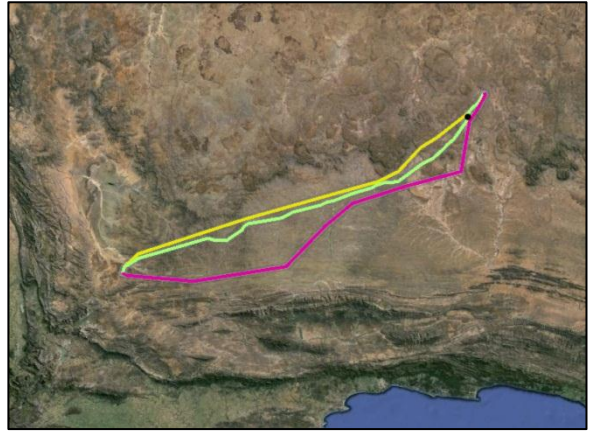



Segment number	19
Located along option number 32°25'13.60"S 22°42'40.29"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located near a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	10 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo Good seasonal habitat in pans for breeding of amphibians especially <i>Pyxicephalus adspersus</i> (NT).
Habitat description 	High floral species abundance and diversity. Very low grass cover, high karroid shrub. Undisturbed open veld.
Dominant floral species	<i>Aptosimum indivisum</i> <i>Lycium horridum</i> <i>Seriphium plumosa</i> <i>Hermannia cuneifolia</i> <i>Chrysocoma ciliata</i> <i>Asparagus capensis</i> <i>Stipagrostis obtusa</i> <i>Eragrostis lehmanniana</i>
Significance in terms of faunal habitat and migration	Will provide foraging habitat for larger herbivores such as <i>Raphicerus campestris</i> .
EIS	5





Segment number	20
Located along option number 31°42'43.52"S 23°24'29.66"E	1 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Eastern Upper Karoo
Number of SCC listed for the QDS	0 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo Invertebrate importance indicated
Habitat description 	Relatively intact open veld.
Dominant floral species	<i>Lycium horridum</i> <i>Pteronia adenocarpa</i> <i>Salsola calluna</i> <i>Atriplex vestita</i> <i>Acacia karroo</i> <i>Pteronia glauca</i> <i>Stipagrostis ciliata</i> <i>Stipagrostis obtusa</i> <i>Aristida congesta</i>
Significance in terms of faunal habitat and migration	Section would provide foraging habitat for larger mammal species, however absence of rocky outcrops and riparian vegetation would reduce the potential of the area being used as amphibian or reptile breeding habitat.
EIS	3

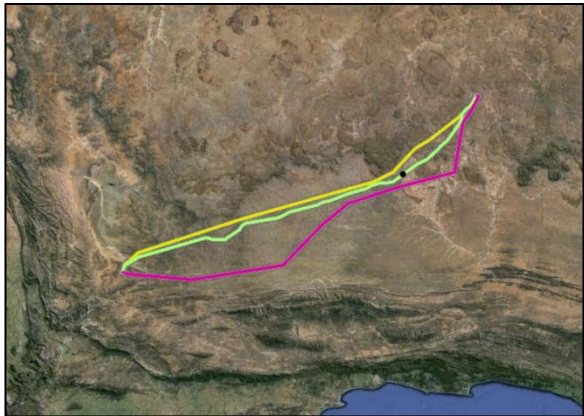



Segment number	21
Located along option number 31°51'58.00"S 23°15'42.87"E	2 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located near a CBA
Vegetation type (Mucina and Rutherford 2006)	Eastern Upper Karoo
Number of SCC listed for the QDS	0 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Next to N1 Highway, surrounding area open veld. Overgrazing by livestock evident.
Dominant floral species	<i>Eriocephalus spinescens</i> <i>Eragrostis lehmanniana</i> <i>Stipagrostis obtusa</i>
Significance in terms of faunal habitat and migration	Limited faunal habitat available, anthropogenic activity would also limit the amount of fauna moving through the area.
EIS	1

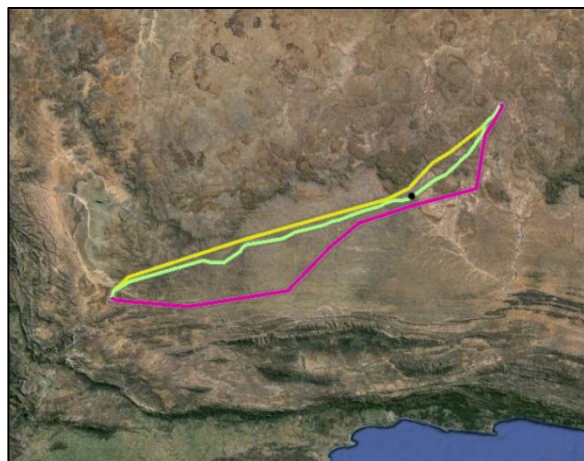
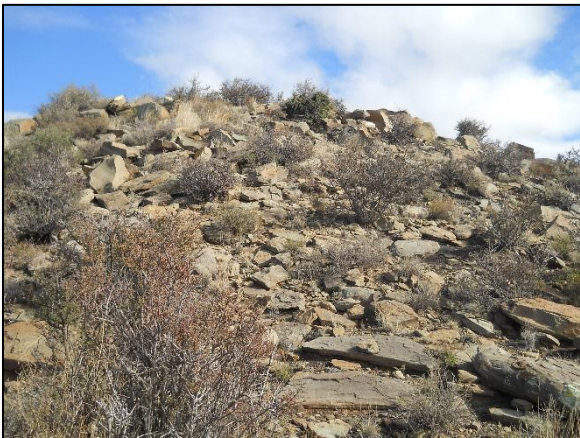


Segment number	22
Located along option number 31°53'10.70"S 23°10'43.34"E	3 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located near a CBA
Vegetation type (Mucina and Rutherford 2006)	Eastern Upper Karoo
Number of SCC listed for the QDS	0 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Next to N1 Highway, surrounding area open veld. Overgrazing by livestock evident.
Dominant floral species	<i>Acacia karroo</i> <i>Pentzia globosa</i> <i>Psilocalon junceum</i> (Protected – WCNCLAA) <i>Lycium cinereum</i> <i>Aristida congesta</i> <i>Eragrostis echinochloidea</i>
Significance in terms of faunal habitat and migration	Limited faunal habitat available, anthropogenic activity would also limit the amount of fauna moving through the area.
EIS	1

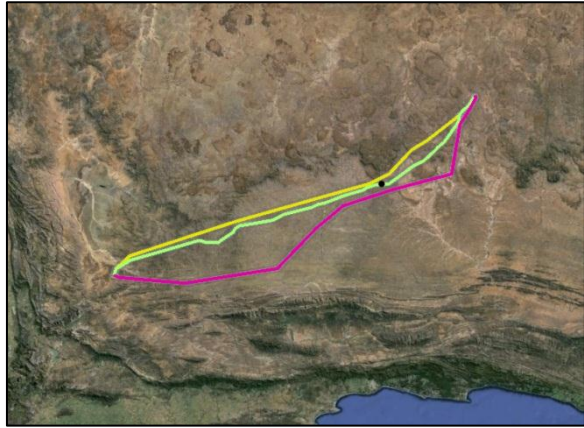



Segment number	23
Located along option number 32° 19' 29.57" S 22° 42' 38.60" E	2 
National Protected Areas Expansion Strategy (2008)	Steenbokkie Nature Reserve
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	10 species
Nearby CREW species	1 species
SKEP significance	Vegetation Group – Nama Karoo Steenbokkie Nature Reserve Mammal importance indicated with special mention of the <i>Bunolagus monticularis</i> (Riverine Rabbit)
Habitat description 	Steenbokkie Nature Reserve, high floral diversity and abundance, limited overall disturbance with the exception of transmission lines running through the reserve. May support viable populations of <i>Gasteria disticha</i> .
Dominant floral species	<i>Pteronia glomerata</i> <i>Atriplex lindleyi</i> <i>Thesium lineatum</i> <i>Stipagrostis ciliata</i> <i>Eragrostis echinochloidea</i> <i>Cenchrus ciliaris</i>
Significance in terms of faunal habitat and migration	Important in terms of faunal conservation. The transmission line should preferably not traverse the nature reserve. Impact from several existing transmission lines already present, any additional impact should be prevented.
EIS	5



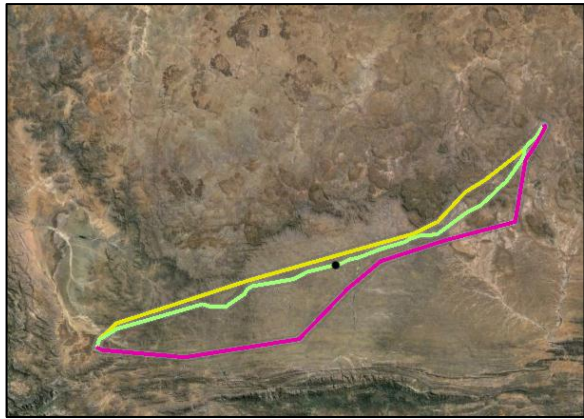

Segment number	24
Located along option number 32°22'7.24"S 22°38'17.75"E	2 
National Protected Areas Expansion Strategy (2008)	Steenbokkie Nature Reserve
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	10 species
Nearby CREW species	1 species
SKEP significance	Vegetation Group – Nama Karoo Steenbokkie Nature Reserve Mammal importance indicated with special mention of the <i>Bunolagus monticularis</i> (Riverine Rabbit)
Habitat description 	Rocky outcrop next to existing transmission lines. Fairly intact habitat with floral habitat for both sand as well as rocky outcrop species.
Dominant floral species	<i>Rhigozum obovatum</i> <i>Pentzia incana</i> <i>Eriocephalus microphyllus</i> <i>Lycium cinereum</i> <i>Chrysocoma ciliata</i> <i>Aloe variegata</i> (Protected – WCNCLAA) <i>Lycium horridum</i> <i>Aristida diffusa</i> <i>Eragrostis lehmanniana</i>
Significance in terms of faunal habitat and migration	Rocky outcrop faunal habitat with open veld within surroundings will support a wide diversity of reptiles and small mammal species.
EIS	4



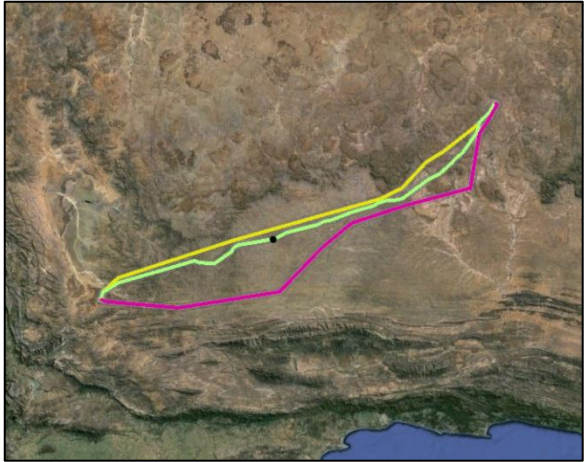

Segment number	25
Located along option number 32°23'54.24"S 22°32'10.75"E	2 
National Protected Areas Expansion Strategy (2008)	Near boundary of Karoo National Park
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located near a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	10 species
Nearby CREW species	1 species
SKEP significance	Vegetation Group – Nama Karoo Mammal importance indicated with special mention of the <i>Bunolagus monticularis</i> (Riverine Rabbit)
Habitat description 	Riparian vegetation with grassland in surroundings. Veld considered to be in a moderate ecological condition.
Dominant floral species	<i>Lycium horridum</i> <i>Ruschia intricata</i> (Protected – WCNCLAA) <i>Thesium lineatum</i> <i>Atriplex lindleyi</i> <i>Tripteris sinuata</i> <i>Lycium cinereum</i> <i>Searsia glauca</i> <i>Dodonaea viscosa</i> var. <i>angustifolia</i> <i>Acacia karroo</i> <i>Aloe variegata</i> (Protected – WCNCLAA) <i>Stipagrostis obtusa</i> <i>Fingerhuthia africana</i> <i>Eragrostis echinochloidea</i>
Significance in terms of faunal habitat and migration	<i>Lepus saxatilis</i> (Shrub Hare) encountered. Section located next to the N12 Highway and railway line. Faunal species

	would be restricted to more isolated surrounding areas. Intact riparian vegetation further from anthropogenic activity may support <i>Bunolagus monticularis</i> (Riverine Rabbit)
EIS	3

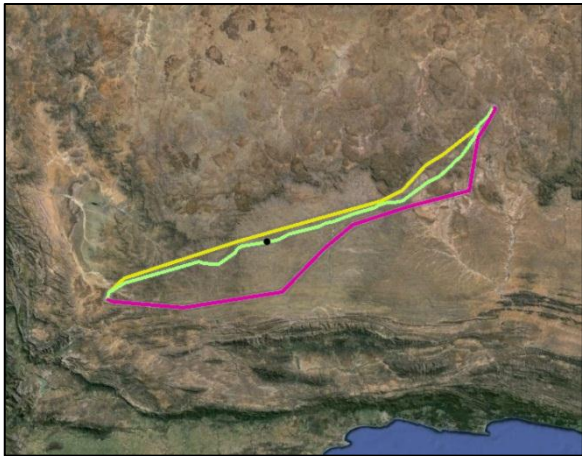



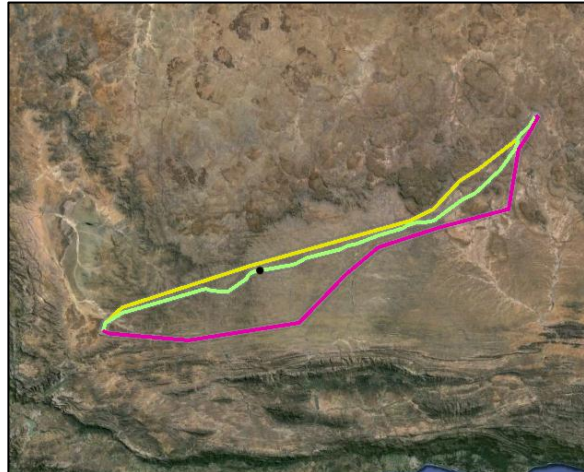

Segment number	26
Located along option number 32°35'8.03"S 21°50'12.88"E	2 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	0 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description	Open veld with rocky outcrop koppies, low floral abundance and diversity. 
Dominant floral species	<i>Chrysocoma ciliata</i> <i>Rhigozum obovatum</i> <i>Stipagrostis ciliata</i> <i>Stipagrostis obtusa</i>
Significance in terms of faunal habitat and migration	Provides habitat for smaller mammal species such as <i>Procavia capensis</i> (Rock Hyrax) and reptiles. Faunal migration will be inhibited by Vermin fence.
EIS	1





Segment number	27
Located along option number 32°40'49.34"S 21°30'21.53"E	2 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	4 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Riparian habitat underneath existing transmission lines, dominated by <i>Salsola</i> sp. and <i>Acacia karoo</i> .
Dominant floral species	<i>Salsola aphylla</i> <i>Acacia karroo</i> <i>Gymnosporia buxifolia</i> <i>Rhigozum obovatum</i> <i>Stipagrostis ciliata</i>
Significance in terms of faunal habitat and migration	Riparian habitat will provide breeding habitat for avifaunal and small mammal species. However, degree of vegetation transformation within surrounding open veld will limit the use of these areas for foraging.
EIS	3

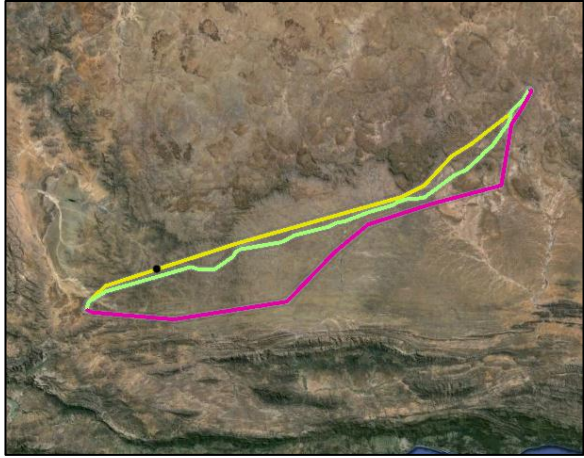





Segment number	28
Located along option number 32°41'29.81"S 21°25'40.69"E	2 
National Protected Areas Expansion Strategy (2008)	Lower Karoo – Focus Area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located near a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	1 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Karriod shrubland with a distinctive grass layer, however vegetation is considered sparse in some areas. Considered highly likely to change after sufficient rainfall.
Dominant floral species	<i>Lycium horridum</i> <i>Stipagrostis ciliata</i> <i>Fingerhuthia africana</i>
Significance in terms of faunal habitat and migration	Natural open veld with isolated rocky outcrops will sustain a diversity of faunal species.
EIS	4

Segment number	29
Located along option number 32°43'1.38"S 21°15'40.62"E	2 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located near a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	1 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Natural open veld, two transmission lines already traversing the section.
Dominant floral species	<i>Rhigozum obovatum</i> <i>Aloe claviflora</i> (Protected – WCNCLAA) <i>Stipagrostis obtusa</i> <i>Fingerhuthia africana</i> <i>Aristida congesta</i>
Significance in terms of faunal habitat and migration	<i>Antidorcas marsupialis</i> (Springbok) and <i>Raphicerus campestris</i> (Steenbok) encountered.
EIS	4

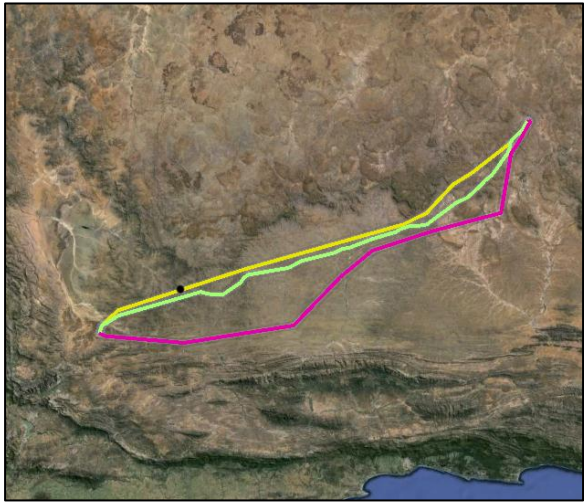

Segment number	30
Located along option number 32°46'53.11"S 21°18'8.48"E	2 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	3 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description	Road crossing, very disturbed. 
Dominant floral species	<i>Rhigozum obovatum</i> <i>Stipagrostis ciliata</i> <i>Stipagrostis obtusa</i> <i>Aristida diffusa</i> <i>Fingerhuthia africana</i>
Significance in terms of faunal habitat and migration	No faunal habitat, roads and fences will limit migration of faunal species significantly.
EIS	1





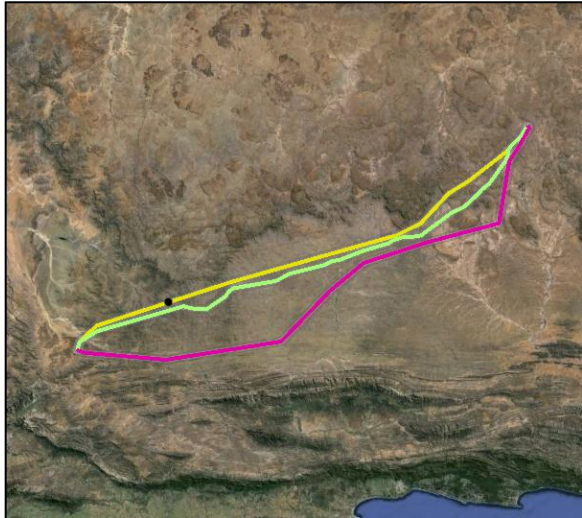

Segment number	31
Located along option number 32°50'59.43"S 20°33'41.32"E	3 
National Protected Areas Expansion Strategy (2008)	Located near the Western Karoo focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Koedoesberge Moordenaars Karoo
Number of SCC listed for the QDS	6 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Mountain Succulent Karoo
Habitat description	Elevated rocky outcrop with river flowing in the valley bottom. Floral species diversity considered high with habitat provided for both outcrop as well as wetland floral species.
	
Dominant floral species	<i>Chrysocoma ciliata</i> <i>Dicrothamnus rhinocerotis</i> <i>Galenia africana</i> <i>Ehrharta calycina</i> <i>Tylecodon paniculatus</i> <i>Pteronia incana</i> <i>Cyphia digitata</i> <i>Eriocephalus ericoides</i>
Significance in terms of faunal habitat and migration	Limited anthropogenic activity therefore veld can still be considered largely natural and will provide breeding as well as foraging habitat for various faunal species.
EIS	5

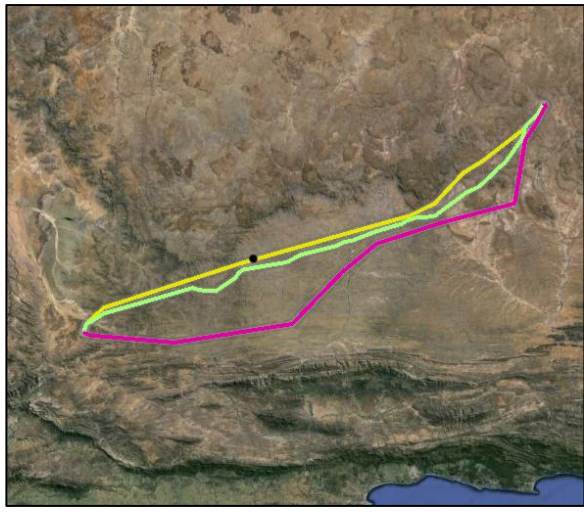

Segment number	32
Located along option number 32°53'56.70"S 20°33'42.60"E	2 
National Protected Areas Expansion Strategy (2008)	Located near the Western Karoo focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Central Mountain Shale Renosterveld
Number of SCC listed for the QDS	6 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Renosterveld
Habitat description	Open veld with little habitat diversity, however overall floral abundance considered high. 
Dominant floral species	<i>Dicerotheramus rhinocerotis</i> <i>Felicia filifolia</i> <i>Selago albida</i> <i>Pteronia glauca</i> <i>Euryops imbricatus</i> <i>Chrysocoma ciliata</i> <i>Moraea ciliata</i> (Protected – WCNCLAA)
Significance in terms of faunal habitat and migration	Area does provide habitat for wide variety of faunal species, however surrounding areas hosts' similar habitat therefore impact can be largely reduced if construction footprint areas are kept as small as possible. Migration will only be impacted during the construction phase, surrounding natural habitat will provide an alternative migration corridor during construction activities.
EIS	4





Segment number	33
Located along option number 32°49'13.58"S 20°40'13.82"E	3 
National Protected Areas Expansion Strategy (2008)	Located within the Western Karoo focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Koedoesberge Moordenaars Karoo
Number of SCC listed for the QDS	6 species
Nearby CREW species	None
SKEP significance	Vegetation Group - Renosterveld
Habitat description 	Disturbed veld, low floral species diversity and abundance.
Dominant floral species	<i>Euryops imbricatus</i> <i>Pteronia mucronata</i> <i>Pteronia pallens</i> <i>Felicia filifolia</i> <i>Moraea ciliata</i> (Protected – WCNCLAA)
Significance in terms of faunal habitat and migration	Doubtful if a significant diversity and abundance of faunal species will occur or move through the section due to more intact vegetation in surroundings.
EIS	2

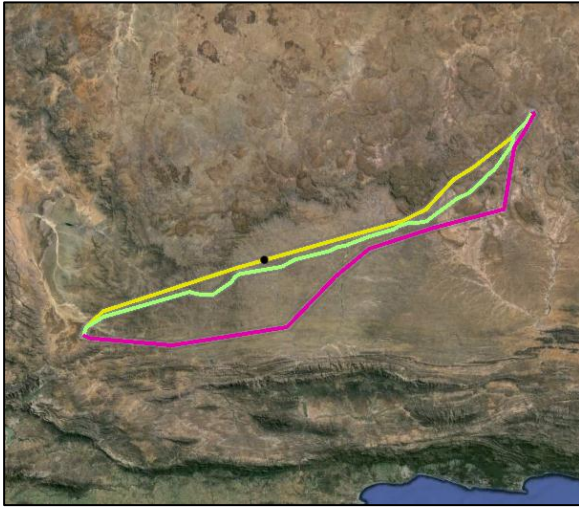

Segment number	34
Located along option number 32°52'28.02"S 20°40'10.64"E	2 
National Protected Areas Expansion Strategy (2008)	Located within the Western Karoo focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Central Mountain Shale Renosterveld
Number of SCC listed for the QDS	6 species
Nearby CREW species	None
SKEP significance	Vegetation Group - Renosterveld
Habitat description 	Undisturbed natural veld, near an existing transmission line.
Dominant floral species	<i>Dicerthamnus rhinocerotis</i> <i>Felicia ovata</i> <i>Euryops imbricatus</i> <i>Selago albida</i> <i>Pteronia paniculata</i> <i>Moraea ciliata</i> (Protected – WCNCLAA) <i>Colchicum coloratum</i>
Significance in terms of faunal habitat and migration	Section does provide habitat for wide variety of faunal species and vegetation is considered intact. It is therefore recommended that impact related to the construction of the transmission line be kept to a minimum should this alternative be chosen.
EIS	5

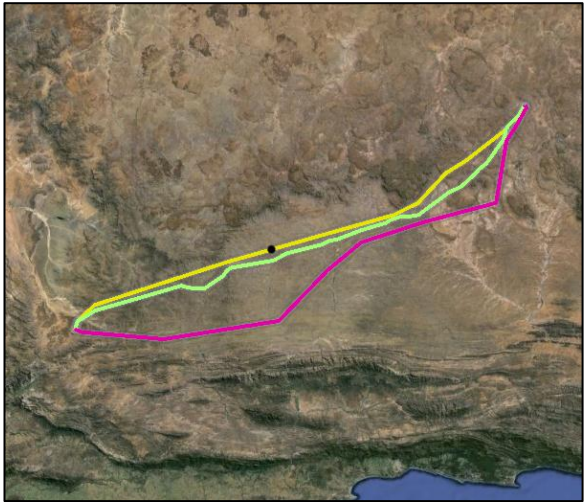

Segment number	35
Located along option number 32°48'26.09"S 20°43'12.24"E	3 
National Protected Areas Expansion Strategy (2008)	Located within the Western Karoo focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Central Mountain Shale Renosterveld
Number of SCC listed for the QDS	6 species
Nearby CREW species	None
SKEP significance	Vegetation Group - Renosterveld
Habitat description	Rocky outcrop with very little anthropogenic activity in the vicinity of the section. Floral diversity and abundance considered high. POC for SCC considered high.
	
Dominant floral species	<i>Zygophyllum flexuosum</i> <i>Dicerotheramnus rhinocerotis</i> <i>Eriocephalus africanus</i> <i>Hermannia cuneifolia</i> <i>Pteronia glomerata</i> <i>Monoculus hyoseroides</i> <i>Eriocephalus microphyllus</i> <i>Eriocephalus punctulatus</i>
Significance in terms of faunal habitat and migration	Section would provide foraging habitat for various faunal species. Open natural surroundings would be used as migratory corridors.
EIS	5

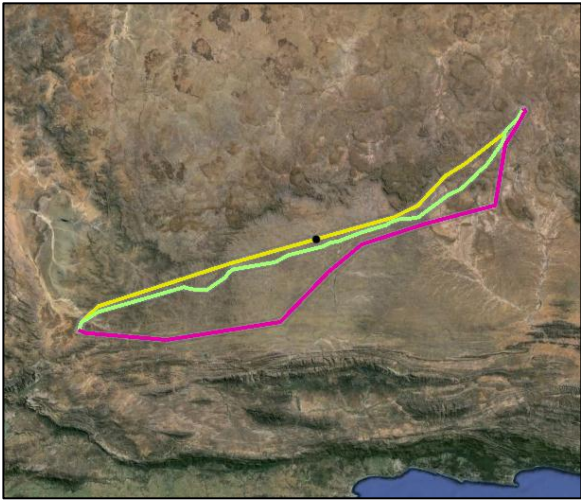

Segment number	36
Located along option number 32°39'43.15"S 21°16'45.75"E	3 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	1 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Open veld, distinctive grass layer with very few floral species. Rocky outcrops could provide habitat for succulents not found within surrounding open veld areas. Therefore recommended that the support towers be placed outside rocky outcrops.
Dominant floral species	<i>Searsia undulata</i> <i>Rhigozum obovatum</i> <i>Gymnosporia buxifolia</i> <i>Aristida congesta</i> <i>Aristida diffusa</i>
Significance in terms of faunal habitat and migration	No unique faunal habitat encountered in the section. No fences, therefore faunal species will move around any construction activity.
EIS	4

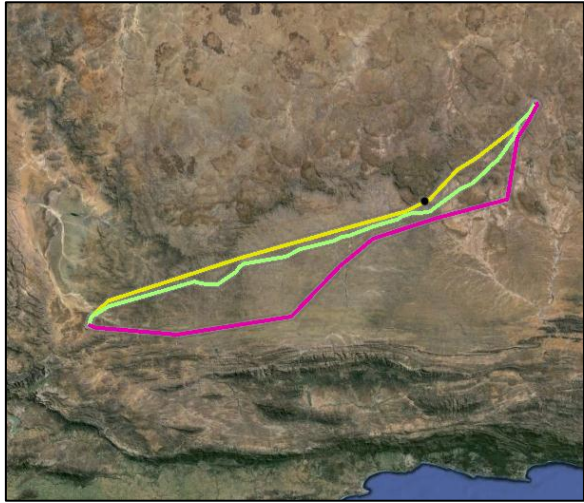



Segment number	37
Located along option number 32°39'50.05"S 21°16'13.45"E	3 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	1 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Rocky outcrops could provide habitat for succulents not found within surrounding open veld areas. Therefore recommended that the support towers be placed outside rocky outcrops.
Dominant floral species	<i>Rhigozum obovatum</i> <i>Erioccephalus ericoides</i> <i>Pentzia incana</i> <i>Stipagrostis ciliata</i> <i>Aristida congesta</i> <i>Aristida diffusa</i>
Significance in terms of faunal habitat and migration	Rocky outcrops will provide shelter and foraging habitat for reptiles as well as small mammals.
EIS	5

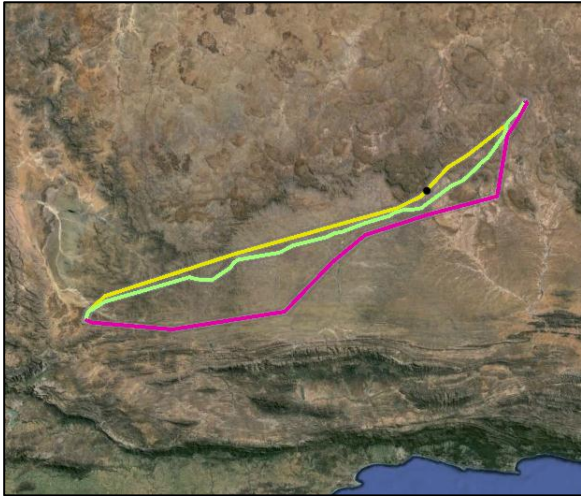

Segment number	38
Located along option number 32°38'12.41"S 21°23'40.38"E	3 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Southern Karoo Riviere
Number of SCC listed for the QDS	1 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	<i>Salsola</i> sp. and <i>A. karoo</i> dominated riparian habitat, considered representative of the vegetation type.
Dominant floral species	<i>Salsola aphylla</i> <i>Acacia karoo</i> <i>Gymnosporia buxifolia</i> <i>Rhigozum obovatum</i> <i>Stipagrostis ciliata</i>
Significance in terms of faunal habitat and migration	Intact denser riparian vegetation further from anthropogenic activity may support <i>Bunolagus monticularis</i> (Riverine Rabbit).
EIS	4

Segment number	39
Located along option number 32°36'25.54"S 21°30'47.36"E	3 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	4 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description	Open veld with isolated rocky outcrops. Vegetation sparse, with diversity increasing on koppies.
	
Dominant floral species	<i>Lycium horridum</i> <i>Stipagrostis ciliata</i> <i>Fingerhuthia africana</i>
Significance in terms of faunal habitat and migration	Foraging habitat limited, however considered likely to increase after sufficient rain. Isolation from anthropogenic activity also increases the diversity of faunal species expected to migrate through the section.
EIS	3

Segment number	40
Located along option number 32°31'51.24"S 21°50'19.94"E	3 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located near a CBA
Vegetation type (Mucina and Rutherford 2006)	Southern Karoo Riviere
Number of SCC listed for the QDS	0 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Riparian habitat dominated by <i>Acacia Karoo</i> surrounded by disturbed veld.
Dominant floral species	<i>Zygophyllum flexuosum</i> <i>Salsola aphylla</i> <i>Acacia karroo</i> <i>Chrysocoma ciliata</i> <i>Atriplex lindleyi</i> <i>Stipagrostis ciliata</i> <i>Fingerhuthia africana</i> <i>Eragrostis lehmanniana</i>
Significance in terms of faunal habitat and migration	Riparian habitat will provide habitat for smaller faunal species as well as avifaunal species.
EIS	2

Segment number	41
Located along option number 32° 19' 26.00" S 22° 34' 38.86" E	3 
National Protected Areas Expansion Strategy (2008)	Near border of the Karoo National Park
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	10 species
Nearby CREW species	1 species
SKEP significance	Vegetation Group – Nama Karoo Near the Karoo National Park Reptile and amphibian importance documented within the Karoo National Park Mammal importance indicated with special mention of the <i>Bunolagus monticularis</i> (Riverine Rabbit)
Habitat description 	Grassland, border of Karoo National Park.
Dominant floral species	<i>Atriplex lindleyi</i> <i>Euphorbia stellispina</i> <i>Lycium horridum</i> <i>Thesium lineatum</i> <i>Eriocephalus microphyllus</i> <i>Stipagrostis ciliata</i> <i>Eragrostis lehmanniana</i>
Significance in terms of faunal habitat and migration	N1 Highway will limit the amount of faunal species within the portion.
EIS	2





Segment number	42
Located along option number 32°16'27.57"S 22°39'19.28"E	3 
National Protected Areas Expansion Strategy (2008)	Located near the Upper Karoo focus area
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Gamka Karoo
Number of SCC listed for the QDS	10 species
Nearby CREW species	1 species
SKEP significance	Vegetation Group – Nama Karoo Reptile and amphibian importance documented within the Karoo National Park Mammal importance indicated with special mention of the <i>Bunolagus monticularis</i> (Riverine Rabbit)
Habitat description 	Intact habitat on the border of the Karoo National Park. No existing transmission lines nearby. Therefore, it is recommended that this alternative, if feasible, be re-routed as far as possible from the Karoo National Park.
Dominant floral species	<i>Pentzia incana</i> <i>Pentzia spinescens</i> <i>Thesium lineatum</i> <i>Acacia karoo</i> <i>Chrysocoma ciliata</i> <i>Stipagrostis ciliata</i> <i>Stipagrostis obtusa</i> <i>Fingerhuthia africana</i> <i>Eragrostis echinochloidea</i>
Significance in terms of faunal habitat and migration	Conservation of faunal habitat considered very important within the Karoo National Park. Impact on faunal habitat





	should be avoided as far as possible.
EIS	4





Segment number	43
Located along option number 32°13'15.51"S 22°50'8.55"E	2 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Poorly protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Southern Karoo Riviere
Number of SCC listed for the QDS	0 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo Mammal importance indicated with special mention of the <i>Bunolagus monticularis</i> (Riverine Rabbit)
Habitat description 	Diversity as well as abundance of indigenous floral species considered low. <i>Acacia karoo</i> encroachment considered significant with <i>Prosopis</i> sp. encroachment also encountered.
Dominant floral species	<i>Lycium cinereum</i> <i>Acacia karoo</i> <i>Pentzia spinescens</i> <i>Felicia muricata</i> <i>Stipagrostis ciliata</i> <i>Cenchrus ciliaris</i> <i>Eragrostis lehmanniana</i> <i>Eragrostis curvula</i>
Significance in terms of faunal habitat and migration	Fenced off open veld, not likely to support significant faunal populations due to habitat transformation.
EIS	2

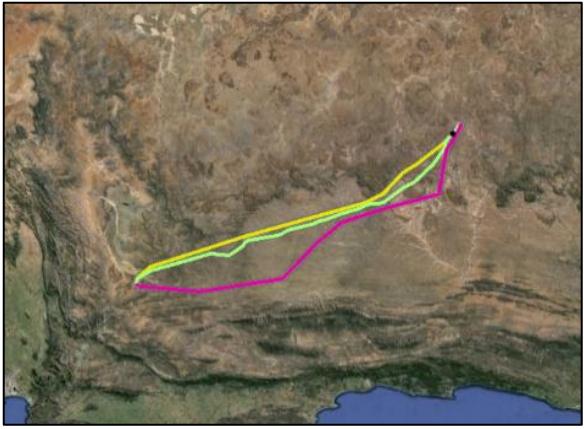



Segment number	44
Located along option number 32° 0'22.37"S 23° 0'7.04"E	3 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Eastern Upper Karoo
Number of SCC listed for the QDS	0 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo Mammal importance indicated with special mention of the <i>Bunolagus monticularis</i> (Riverine Rabbit)
Habitat description 	Overgrazed dominated by few shrub species, with river system running within adjacent open veld.
Dominant floral species	<i>Lycium cinereum</i> <i>Ruschia intricata</i> (Protected – WCNCLAA) <i>Pentzia globosa</i> <i>Eragrostis lehmanniana</i> <i>Eragrostis echinochloidea</i>
Significance in terms of faunal habitat and migration	River system may provide habitat for the <i>Bunolagus monticularis</i> (Riverine Rabbit) as well as other smaller mammal species.
EIS	2

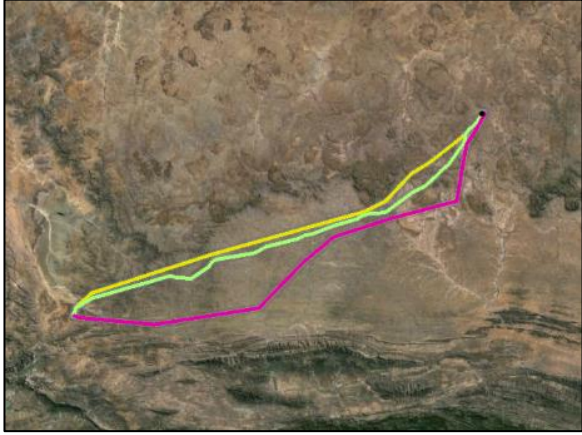



Segment number	45
located along option number 31°47'21.49"S 23°21'41.81"E	3 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Eastern Upper Karoo
Number of SCC listed for the QDS	0 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Rocky outcrop surrounded by open veld, overgrazing evident in some areas.
Dominant floral species	<i>Eriosephalus ericoides</i> <i>Ruschia intricata</i> (Protected – WCNCLAA) <i>Lycium cinereum</i> <i>Chrysocoma ciliata</i> <i>Septulina glauca</i> <i>Hermannia cuniefolia</i> <i>Stipagrostis obtusa</i> <i>Eragrostis lehmanniana</i>
Significance in terms of faunal habitat and migration	Foraging habitat limited, however considered likely to increase after sufficient rain.
EIS	4



Segment number	46
Located along option number 31°45'37.19"S 23°20'5.60"E	3 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Eastern Upper Karoo
Number of SCC listed for the QDS	0 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Rocky outcrops with transmission line crossing section, open veld in surroundings considered in moderate ecological condition.
Dominant floral species	<i>Eriosephalus ericoides</i> <i>Lycium cinereum</i> <i>Pentzia globosa</i> <i>Pentzia incana</i> <i>Chrysocoma ciliata</i> <i>Galenia africana</i> <i>Pteronia viscosa</i> <i>Stipagrostis obtusa</i> <i>Eragrostis lehmanniana</i>
Significance in terms of faunal habitat and migration	Foraging habitat limited, however considered likely to increase after sufficient rain.
EIS	3



Segment number	47
Located along option number 31°41'31.21"S 23°23'56.47"E	2 
National Protected Areas Expansion Strategy (2008)	N/A
National Land Cover (2009)	Natural veld
NBA (2011) protection level	Not protected
National List of Threatened Ecosystems (2011)	Does not fall within a threatened ecosystem
Significance according to Fine Scale Plans	Not located within a CBA
Vegetation type (Mucina and Rutherford 2006)	Eastern Upper Karoo
Number of SCC listed for the QDS	0 species
Nearby CREW species	None
SKEP significance	Vegetation Group – Nama Karoo
Habitat description 	Open veld with transformation restricted to road servitudes. Existing transmission lines within the section. Overall veld condition considered moderately high.
Dominant floral species	<i>Lycium cinereum</i> <i>Ericephalus ericoides</i> <i>Gnidia polycephala</i> <i>Euryops imbricatus</i> <i>Pentzia globosa</i> <i>Phymaspermum parvifolium</i>
Significance in terms of faunal habitat and migration	Evidence of <i>Hystrix africaeustralis</i> (Porcupine) encountered. Open veld, could support additional faunal species as well.
EIS	4

