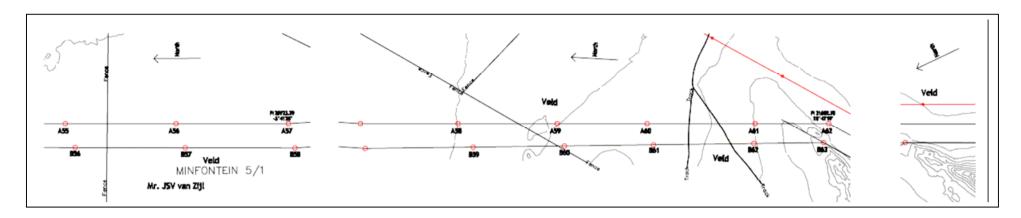




A51 – A62 Flat plains

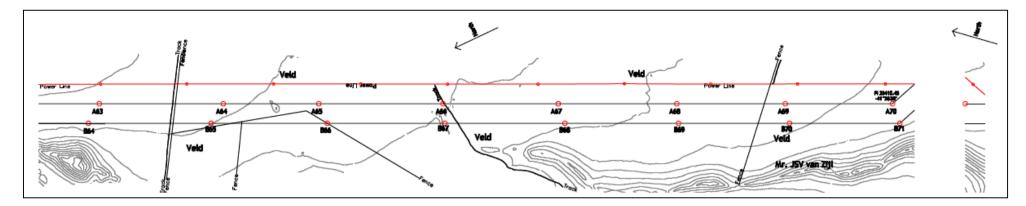
Farm Name	Damfontein 138/2
Owner	Private
Contact	RE Venter
name	
Tel No.:	082 415 2321
Cell No.:	082 825 1872
Special	Contact owner prior to
Conditions	construction

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A47 – A50	No specific environmental aspects	Generic EMP	Contractor	Generic	
A51 – A62	Flat plains. Powerline / bird collisions have taken place previously in this area. IMPACT: Power line / bird collisions.	Both earth wires between tower A51 and tower A62 recinstallation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires found in the document titled "Specifications for Bird flight Installation on a Transmission Line" (APPENDIX 4) and the Collision Guidelines" (APPENDIX 5)	can be Diverters	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	1
B52 – B53	Flat plains. Powerline / bird collisions have taken place previously in this area. IMPACT: Power line / bird collisions.	Both earth wires between tower B52 and tower B63 recinstallation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires found in the document titled "Specifications for Bird flight Installation on a Transmission Line" (APPENDIX 4) and the Collision Guidelines" (APPENDIX 5)	can be Diverters	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	\



Farm Name	Minfontein 5/63
Owner	Van ZIJL Mynfontein Boerdery CC
Contact name	JSV van Zyl
Tel No.:	028 316 3910
Cell No.:	083 261 3091
Special Conditions	Contact owner prior to construction

TOWER NUMBER	ENVIRONMENTAL ASPECT		MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A55 – A61	No specific environmental aspects	•	Generic EMP	Contractor	Generic	
A62	Koppie in proximity to tower. IMPACT: Landscape scarring by access road to tower position.	:	Select alignment from new access road, which will gradually cut across the contours to cause the least scarring on the koppie. Rehabilitation to include rock packing on cut and fill slopes. Surface water runoff to be deflected from road to adjacent areas at regular intervals.	ECO / CELO		V
B63	Tower located on a small saddle between two high points of a dolerite hill. IMPACT: Potential problem with access to the site due to steep slopes and rocky terrain. High potential for damage to slope habitats and sensitive vegetation of this area. Potential landscape scarring by access road to tower position on top of the ridge.	•	Access to the site should be carefully planned in order to prevent damage to the steep slope habitats. Access should preferably be from the north or northeast with shallower gradients. (Joggie recommended) North-western access to tower recommended. (Alan recommended) Select alignment from new access road north of the ridge which will gradually cut across the contours to cause the least scarring on the koppie. Access outside of roads and assembly /construction site should be strictly prohibited and controlled. Rehabilitation to include rock packing on cut and fill slopes. Surface water runoff to be deflected from road to adjacent areas at regular intervals.	ECO / Contractor / CELO	R1000.00	V

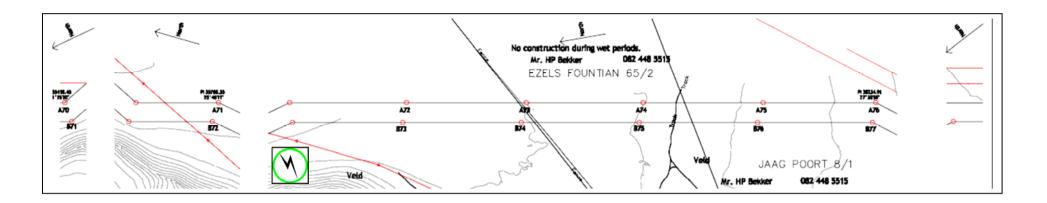




B66 – B69 Bird death due to Powerline / bird collision

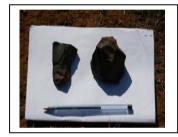
Farm Name	Minfontein 5/63
Owner	Van ZIJL Mynfontein Boerdery
	CC
Contact name	JSV Van ZIJL
Tel No.:	028 316 3910
Cell No.:	083 261 3091
Special	Contact owner prior to
Conditions	construction

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A67 – A68	IMPACT: Power line / bird collisions have taken place previously in this area	Both earth wires between tower A67 and tower A68 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	٠
866 – 869	IMPACT: Power line / bird collisions have taken place previously in this area	Both earth wires between tower B66 and tower B69require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	-











A 72 Flat Plains Area

A71 – A72 Nest

A70 - A71- Stone Age tools

A70 - A71 – Stone Age tools

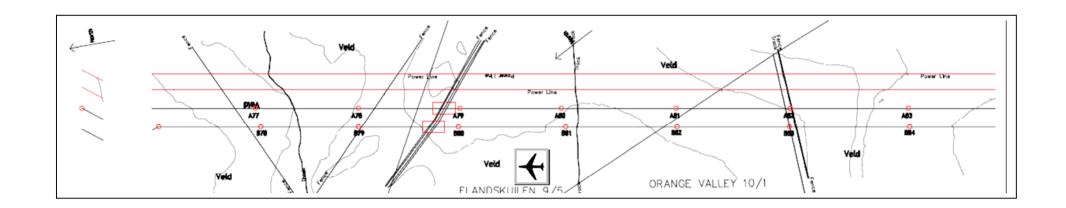
Farm Name	Jaag Poort 8 /63
Owner	Private
Contact name	HP Bekker
Tel No.:	053 631 3471
Cell No.:	082 448 5515
Special Conditions	Contact owner prior to construction.
	Owner has landing strip on Elandskraal

Farm Name	Ezels Fountain
Owner	Private
Contact name	HP Bekker
Tel No.:	053 631 3471
Cell No.:	082 448 5515
Special Conditions	No construction during wet periods

TOWER NUMBER	ENVIRONMENTAL ASPECT		MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A 70 - A 71	Presence of Middle Stone Age and Later Stone Age stone tools at the foot of hill. IMPACT: Damaging or removal of stone tools	•	Stone tool artefacts must not be collected or damaged on site.	ECO / PM / ELO	Fine and or imprisonment in terms of the National Heritage Resources Act No. 25 of 1999	•

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A70 - A71	Nest on 2 Droerivier Hydra Tower 91 IMPACT: Disturbance of nest and birds.	The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction team to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower.	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
		As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).			
B71 – B72	Nest on 2 Droerivier Hydra Tower 91 IMPACT: Disturbance of nest and birds.	The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction team to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
A72	Flat plains area Nest on 2 Droerivier Hydra Tower 91 IMPACT: Powerline / bird collisions and disturbance of birds and nests.	Both earth wires between tower A72 and tower A73 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-

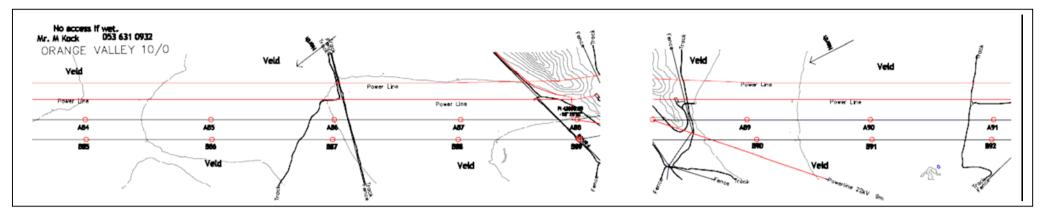
TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
#	Flat plains area Nest on 2 Droerivier Hydra Tower 91 IMPACT: Powerline / bird collisions and disturbance of birds and nests.	Both earth wires between tower B73 and tower B74 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
A73 - A86	Flat plains IMPACT: Powerline / bird collisions	Both earth wires between tower A73 and tower A86 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
B74 – B88	Flat plains IMPACT: Powerline / bird collisions	Both earth wires between tower B74 and tower B88 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-



Farm Name	Orange Valley 10/63
Owner	Kock Francis William Trustees
Contact name	M Kock
Tel No.:	053 631 0932
Cell No.:	
Special Conditions	Contact owner prior to construction. Any relocation of water reticulation is for Eskom. Use existing servitude road only. No access if wet

Farm Name	Orange Valley 10/0
Owner	Private
Contact name	HP Bekker
Tel No.:	053 631 3471
Cell No.:	082 448 5515
Special Conditions	Contact owner prior to construction

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A77 – A 83	See environmental specifications above				

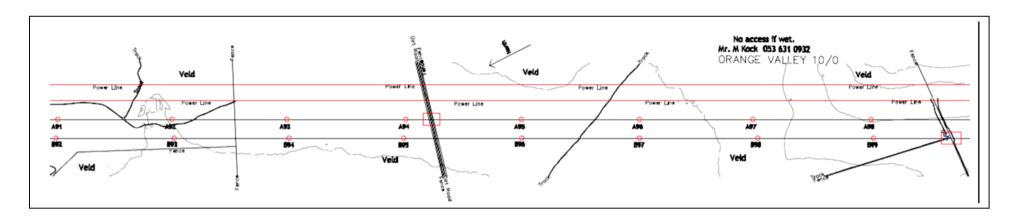


Farm Name	Orange Valley 10/63
Owner	Kock Francis William Trustees
Contact name	M Kock
Tel No.:	053 631 0932
Cell No.:	
Special Conditions	Contact owner prior to construction. Any relocation of water reticulation is for Eskom. Use existing servitude road only. No access if wet

Farm Name	Orange Valley 10/0
Owner	Private
Contact name	HP Bekker
Tel No.:	053 631 3471
Cell No.:	082 448 5515
Special Conditions	Contact owner prior to construction

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A87, A 88	No specific environmental aspects	Generic EMP	Contractor	Generic	
A89	Flat plains area Nest on 3 Droerivier Hydra Tower 472 IMPACT: Powerline / bird collisions and disturbance of bird nests.	 Both earth wires between tower A89 and tower A90 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to 	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	-
A90 – A 91	Dam in the immediate area Nest on 3 Droerivier Hydra Tower 472 IMPACT: Powerline / bird collisions and disturbance of bird nests.	Both earth wires between tower A90 and tower A91 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the ESKOM Collision Guidelines (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	-
	A	instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).			

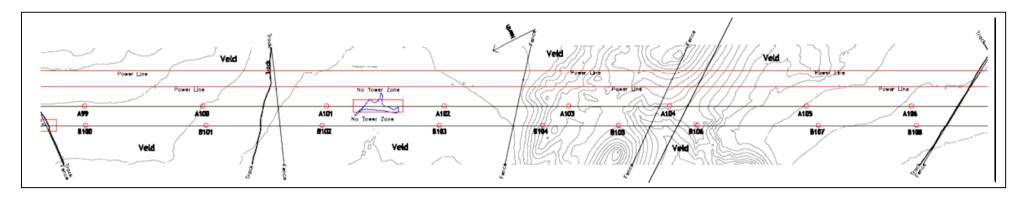
TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
3	Flat plains area Nest on 3 Droerivier Hydra Tower 472 IMPACT: Powerline / bird collisions and disturbance of bird nests.	 Both earth wires between tower B90 and tower B91 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. 	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	-
B91 – B93	Dam in the immediate area Nest on 3 Droerivier Hydra Tower 472 IMPACT: Powerline / bird collisions and disturbance of bird nests.	Both earth wires between tower B91 and tower B93 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4 and the ESKOM Collision Guidelines (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	-



Farm Name	Orange Valley 10/63
Owner	Kock Francis William Trustees
Contact name	M Kock
Tel No.:	053 631 0932
Cell No.:	
Special Conditions	Contact owner prior to construction. Any relocation of water retic for Eskom. Use existing servitude road only. No access if wet

Farm Name	Orange Valley 10/0
Owner	Private
Contact name	HP Bekker
Tel No.:	053 631 3471
Cell No.:	082 448 5515
Special Conditions	Contact owner prior to construction

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A92 – A100	Flat plains area that may be used as a flight path by birds. IMPACT: Powerline / bird collisions	Both earth wires between tower A92 and tower A100 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	
B92 – B101	Flat plains area that may be used as a flight path by birds. IMPACT: Powerline / bird collisions	Both earth wires between tower B92 and tower B101 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-













A102 & B104 - Dam in immediate area

A102 - Nest on 1 Droerivier Tower

A103 - Rock engravings

A103 - Rock engravings

Farm Name	Orange Valley 10/63
Owner	Kock Francis William Trustees
Contact name	M Kock
Tel No.:	053 631 0932
Cell No.:	
Special Conditions	Contact owner prior to construction. Any relocation of water retic for Eskom. Use existing servitude road only. No access if wet

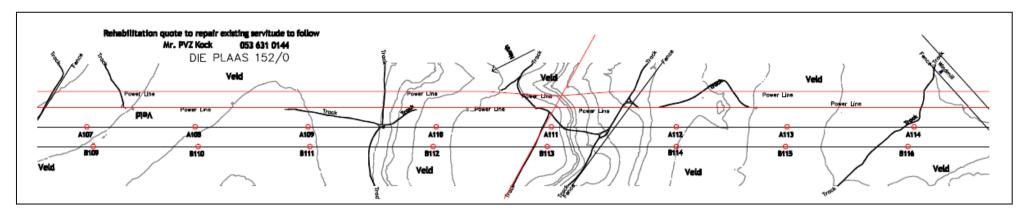
Farm Name	Orange Valley 10/0
Owner	Private
Contact name	HP Bekker
Tel No.:	053 631 3471
Cell No.:	082 448 5515
Special Conditions	Contact owner prior to
	construction

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A101	Dam in immediate area IMPACT: Powerline / bird collisions	Both earth wires between tower A101 and tower A102 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A102	Dam in the immediate area Nest on 1 Droerivier Hydra Tower 132 IMPACT: Powerline / bird collisions and disturbance of bird's nests	 Both earth wires between tower A102 and tower A103 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6). 	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	•
B102	Dam in the immediate area Nest on 1 Droerivier Hydra Tower 132 IMPACT: Powerline / bird collisions and disturbance of bird's nests	Both earth wires between tower B102 and tower B103require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
A103 – 104	IMPACT: Existing access road is a visual scar.	Upgrade existing road by repairing erosion and managing surface water flow off road surface. Select route for access road along the contour to tower from existing road. Rehabilitate side access road after construction of tower	ECO / CELO	-	V
A103	Presence of archaeologically significant rock engravings at the coordinates of 31'05'31.0"S, 23'51'49.1"E and 31'05'30.8"S, 23'51'53.3"E. IMPACT: Damaging or removal of rock engravings.	Area must be demarcated by fencing during construction and access thereto must be denied to construction team. Scratching/defacing of rocks with any material must not be allowed No construction camp shall be erected within a radius of least 30m from the identified site.	ECO / PM / ELO	Fine and or imprisonment in terms of the National Heritage Resources Act No. 25 of 1999	-

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A103 to A104	Nest on 1 Droerivier Hydra Tower 132 IMPACT: Disturbance of bird's nest	The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
B103	Dam in the immediate area Nest on 1 Droerivier Hydra Tower 132 IMPACT: Powerline / bird collisions and disturbance of bird's nests	receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6). Both earth wires between tower B103 and tower B104 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
B104 – B105	Nest on 1 Droerivier Hydra Tower 132 IMPACT: Disturbance of bird's nest	receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6). • The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. • The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. • A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. • Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
B104	Steep northeast facing slope in proximity to tower. IMPACT: Potential to destabilise the steep slope during construction. Sensitive vegetation and habitats occurring along the steep slope could be damaged.	Access should be from the northwest along the flatter slopes. The construction / assembly site needs to be clearly demarcated and all areas outside of it should be managed as a strict no-go zone.	ECO & Contractor	R1000.00	√

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
B104 – B105	Existing access road in proximity. IMPACT: Existing access road is a visual scar.	Upgrade existing road by repairing erosion and managing surface water flow off road surface. Select route for access road along the contour to tower from existing road. Rehabilitate after construction of tower.	ECO / CELO	-	V
A105 to A108	Flat plains area IMPACT: Powerline / bird collisions	Both earth wires between tower A105 and tower A108 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
B107 – B110	Flat plains area IMPACT: Powerline / bird collisions	Both earth wires between tower B107 and tower B110 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-



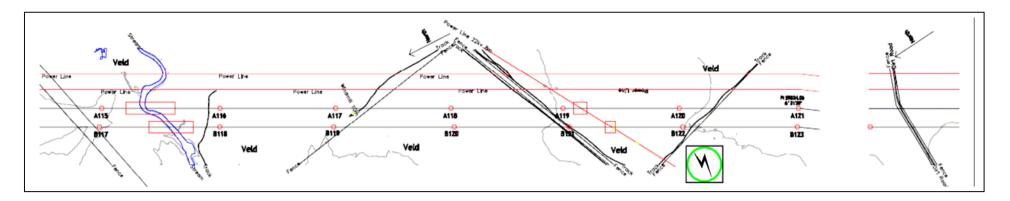


A109 - Flat plains area

Farm Name	Die Plaas 152/152/63
Owner	Private
Contact name	JL Kock
Tel No.:	053 631 0144
Cell No.:	
Special Conditions	Contact owner prior to construction. Rehabilitation quote to repair existing servitudes to follow. Once a third 765kV line is built the older Droevier – Hydra No 2 line must be removed and rehabilitated

TOWER NUMBER	ENVIRONMENTAL ASPEC	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A109	Flat plains area Nest on 1 Droerivier Hydra Tower 141 IMPACT: Powerline / bird collisions and disturbance of bird's nest	 Both earth wires between tower A109 and tower A110 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6). 	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	
A110 - A111	Nest on 1 Droerivier Hydra Tower 141 IMPACT: Disturbance of bird's nest	The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	

TOWER NUMBER	ENVIRONMENTAL ASPEC	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
B111	Flat plains area Nest on 1 Droerivier Hydra Tower 141 IMPACT: Powerline / bird collisions and disturbance of bird's nest	 Both earth wires between tower B111 and tower B112 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6). 	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	-
B112 – B113	Nest on 1 Droerivier Hydra Tower 141 IMPACT: Disturbance of bird's nest	The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	







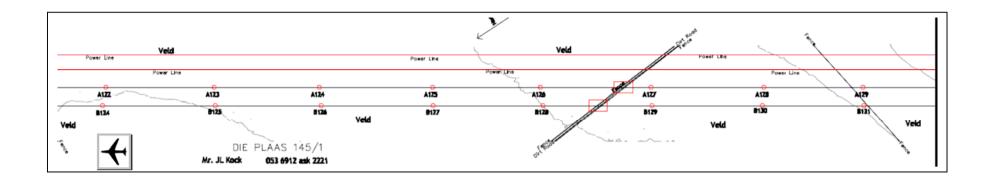
Farm Name	Die Plaas 145/145/63
Owner	Private
Contact name	JL Kock
Tel No.:	053 691 2221
Cell No.:	
Special Conditions	Contact owner prior to construction. Rehabilitation quote to repair existing servitudes to follow. Once a third 765kV line is built the older Droevier – Hydra No 2 line must be removed and rehabilitated.

A 115 - A116 & B119 - B132 Stream crossing

A117 - A130 & B119 - B132 Flat plains area

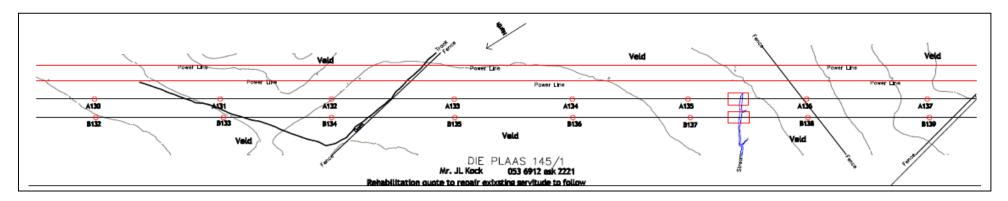
TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A115 - A116	Seasonal stream in proximity to tower. IMPACT: Access road through seasonal stream will scar the profile of the landscape.	Use the existing road crossing created for the 400kV transmission line to the east.	ECO / CELO		-
1	Stream crossing in vicinity that will attract birds. IMPACT: Powerline / bird collisions	Both earth wires between tower A115 and tower A116 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
A117 – A130	Flat plains area through which birds will fly. IMPACT: Powerline / bird collisions	Both earth wires between tower A117 and tower A130 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
B117 – B118	Access road through seasonal stream. IMPACT: Access road will scar profile. At B118 disturbance of erosion sensitive soils will extend and accelerate soil removal. Visual degradation of Karoo veld will result.	Use the existing road crossing created for 400kVA line to the east. Erosion protection measures must be installed around foundations. Soil surface around tower must be reinforced by packing rock as a paving around anchors and tower foundation.	ECO CELO		
B117 – B118	Stream crossing in vicinity that will attract birds. IMPACT: Powerline / bird collisions	Both earth wires between tower B117 and tower B118 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
B119 – B132	Flat plains area through which birds will fly. IMPACT: Powerline / bird collisions	Both earth wires between tower B119 and tower B132 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-



Farm Name	Die Plaas 145/145/63
Owner	Private
Contact name	JL Kock
Tel No.:	053 691 2221
Cell No.:	
Special Conditions	Contact owner prior to construction. Rehabilitation quote to repair existing servitudes to follow. Once a third 765kV line is built the older Droevier – Hydra No 2 line must be removed and rehabilitated.

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A122 - A129	Comply with mitigation measures above.				
B123 – B125	Visibility required for airfield to the west on farm Verbogenfontein.	Place aircraft warning spheres on lines.	ECO / PM	-	-
B126 - B131	No specific environmental aspects	Generic EMP	Contractor	Generic	



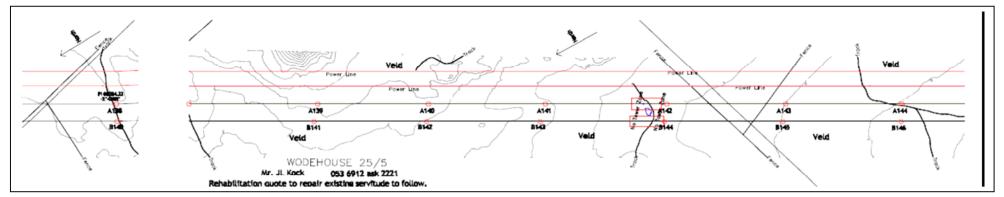


A131	- A133	Flat	plains	area	
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Farm Name	Die Plaas 145/145/63
Owner	Private
Contact name	JL Kock
Tel No.:	053 691 2221
Cell No.:	
Special Conditions	Contact owner prior to construction. Rehabilitation quote to repair existing servitudes to follow. Once a third 765kV line is built the older Droevier – Hydra No 2 line must be removed and rehabilitated.

ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
pecific environmental aspects	Generic EMP	Contractor	Generic	
on 2 Droerivier Hydra Tower 170 ACT: Powerline / bird collisions disturbance of bird's nest	 Both earth wires between tower A131 and tower A133 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. 	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	-
	As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).			
on 2 Droerivier Hydra Tower 170 ICT: Powerline / bird collisions disturbance of bird's nest	 Both earth wires between tower B133 and tower B135 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. 	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	-
disturban	ce of bird's nest	 The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme 	 The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to 	The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A134 – A136	Flat plains area and stream crossing between A136 and A137 that will attract birds. IMPACT: Powerline / bird collisions	Both earth wires between tower A134 and tower A136 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
B136 – B138	Flat plains area and stream crossing between B137 and B140 that will attract birds. IMPACT: Powerline / bird collisions	 Both earth wires between tower B136 and tower B138 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5) 	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-



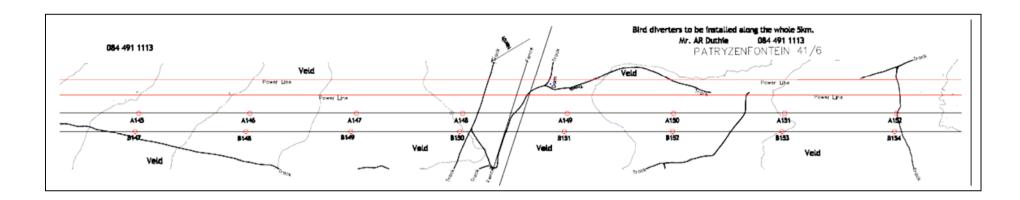


Farm Name	Wodehouse 25/63
Owner	Andrews Trust
Contact name	AR Duthie
Tel No.:	
Cell No.:	084 491 1113
Special Conditions	Contact owner prior to construction. Hunting to be scheduled.

A138 Nest on 1 Droerivier Hydra Tower 178

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A138	Nest on 1 Droerivier Hydra Tower 178 IMPACT: Disturbance of bird's nest	The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
B140	Nest on 1 Droerivier Hydra Tower 178 IMPACT: Disturbance of bird's nest	The existing power lines must be inspected just prior to construction starting and the active raptor nests recorded. The new line with tower positions must be plotted onto a map of the old line indicating where the active raptor nests are in order to identify those areas where disturbance could happen. A meeting must be convened with the ECO and the construction crews to put a mechanism in place whereby a local EWT representative can be alerted when construction is going to take place at a sensitive tower. Appropriate, practical measures will then be agreed upon to reduce the risk of disturbance of the breeding birds. These measures could include temporarily taking the eggs off the nest and keeping it in an incubator in extreme instances, or shielding the chick from the direct sun while activities take place at the adjacent tower. As a general principle, construction activities should ensure minimal disturbance to the receiving environment, refer to ESKOM Nesting Guidelines (APPENDIX 6).	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	

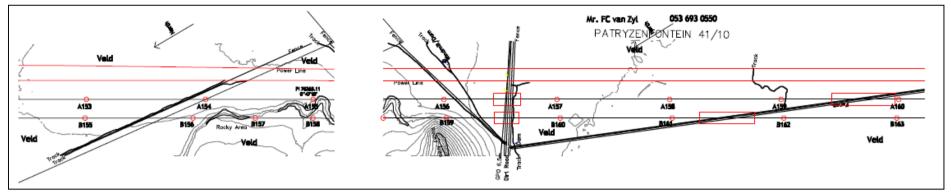
TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A143 – A157	Mr. Andrew Duthie (landowner) requests mitigation IMPACT: Powerline / bird collisions	Both earth wires between tower A143 and tower A157 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	-
B145 – B 160	Mr. Andrew Duthie (landowner) requests mitigation IMPACT: Powerline / bird collisions	Both earth wires between tower B145 and tower B160 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost	
B142 – B144	No specific environmental aspects	Generic EMP	Contractor	Generic	



Farm Name	Patryzenfontein 41/6
Owner	Fred Van Zyl Trust
Contact name	FC Van Zyl
Tel No.:	053 693 0550
Cell No.:	
Special Conditions	Contact owner prior to construction.
	Repair servitude roads and existing
	servitude access.

Farm Name	Wodehouse 25/63
Owner	Andrews Trust
Contact name	AR Duthie
Tel No.:	
Cell No.:	084 491 1113
Special Conditions	Contact owner prior to construction. Hunting to be scheduled.

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A151	Tower located in proximity to a main drainage line, which is a seasonal wetland area. The seasonal wetland provides specialised habitat to various faunal species, potentially including the Blue Crane. IMPACT: Sensitive vegetation could be damaged during construction, specifically to gain access to the tower site	Use existing tracks only to cross the drainage line. Rest of the wetland area and drainage channel to be demarcated as a no-go zone.	ECO / Contractor	R5000.00	V
B147 – B154	No specific environmental aspects	Generic EMP	Contractor	Generic	











A155

A155 – Sandstone ledge

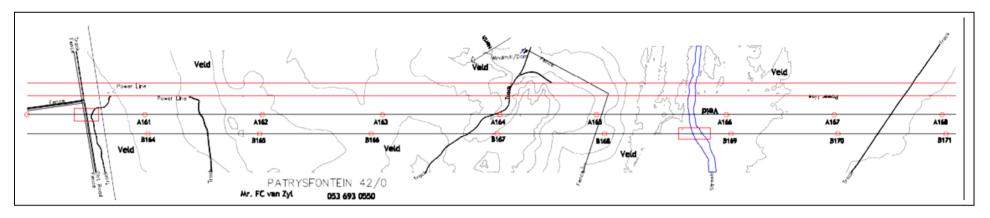
A155 Overhang caves and rock paintings

A155 Stone tool artefacts

Farm Name	Patrysfontein 42/63
Owner	Fred van Zyl
Contact name	FC van Zyl
Tel No.:	053 693 0550
Cell No.:	
Special Conditions	Contact owner prior to construction. Repair existing servitude access.

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMEN T REQUIRED
B155 – B156	No specific environmental aspects	Generic EMP	Contractor	Generic	
A155	Towers visually intrude on stream and seasonal waterfall, which form part of a particularly scenic area.	Contractor shall give particular attention to rehabilitation of the area.	CED / ECO / CELO		V
A	Presence of cultural material inside and next to a rock shelter at the coordinates of 31 17 19.4 s, 23 43 58.2 E. Tower on a flat area close to a sandstone ledge with overhang caves (some with rock paintings and very sensitive in terms of archaeological finds) which provides specialised habitat to fauna. IMPACT: Uncontrolled access could lead to deterioration of heritage finds and sensitive habitat.	Area must be demarcated prior to construction by fencing. Strict control of no-go zone to be enforced. Collection of artefacts must not be allowed. No construction camp shall be erected within a radius of least 30m from the identified site.	ECO / Contractor / ELO	Fine or imprisonment in terms of the National Heritage Resources Act No. 25 of 1999	-
B157	Tower located in prixmity to a sandstone ridge with highly sensitive habitat (small caves etc. underneath the ridge). IMPACT: Potential for damage to the sensitive habitat and vegetation found along the sandstone ledge is high. Construction too close to the edge could result in sections of the ledge to cave in.	Move the tower at least 40 meters to the west, away from the ledge. Demarcate the ledge area as a strict no-go zone and maintain tight control during construction. Access to the site should be along the gentler slopes from the north or northwest.	ECO & Contractor	R5000.00	√

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
B157 – B158	Stream and seasonal waterfall in proximity to towers. IMPACT: Towers visually intrude on stream and seasonal waterfall, which form part of a particularly scenic area. Access road to top of ridge will scar sideslope.	 Particular attention to rehabilitation of area to be given. Access road to towers B157 and B158 to be approached from north, off existing track. 	ECO / CELO		√
B158	Tower in proximity to the edge of a sandstone ledge while a cave with rock paintings and hand implements etc. are located right underneath the ledge in close proximity – IMPACT: Very sensitive in terms of archaeological finds. Sensitive habitat that could be severely impacted by drilling actions etc.	Access to the site should be along the gentler slopes from the north or north-west Area must be demarcated as no-go zone prior to construction by fencing. Strict control of no-go zone to be enforced. Collection of artefacts must not be allowed. No construction camp shall be erected within a radius of least 30m from the identified site.	ECO & Contractor	R5000.00	V
A158 – A161	Dam in immediate area and drainage line present that will attract birds. IMPACT: Powerline / bird collisions	Both earth wires between tower A158 and tower A161 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost.	-
B159	In proximity to a steep, south-facing slope. IMPACT: Potential to destabilise and scar the steep slope during construction. Sensitive vegetation and habitats occurring along the steep slope could be damaged	Access should cut across contours from the south along the flatter slopes. Road to be completely rehabilitated.	ECO / Contractor	-	-
B161 – B164	Dam in immediate area and drainage line present that will attract birds. IMPACT: Powerline / bird collisions	Both earth wires between tower B161 and tower B164 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be re-applied correctly, at the contractor's cost.	-





A165 – A167 & B 168 – B170 Stream crossing



A166 & B168- Severe soil erosion



A165 Erosion prone area



A165 Drainage line

Farm Name	Patrysfontein 42/63
Owner	Fred van Zyl
Contact name	FC van Zyl
Tel No.:	053 693 0550
Cell No.:	
Special Conditions	Contact owner prior to construction. Repair existing servitude access.

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
B164 – B167	No specific environmental aspects	Generic EMP	Contractor	Generic	
A164 - A 167	Visually sensitive seasonal stream in high erosion soils. IMPACT: Visual degradation due to erosion risk.	Use the existing road crossing. Take special care to install erosion protection measures around foundations. Reinforce soil surface around tower by packing rock as a paving around anchors and tower foundation.	ECO / CELO	-	√

TOWER NUMBER	ENVIRONMENTAL ASPECT	MITIGATION MEASURES	RESPONSIBILITY OF	PENALTY	METHOD STATEMENT REQUIRED
A165 – A167	Stream crossing that will attract birds. IMPACT: Powerline / bird collisions	Both earth wires between tower A165 and tower A167 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	-
A166	Wide stormwater drainage line in close proximity to tower, which is prone to erosion due to local soil conditions. IMPACT: High potential for loss of sensitive habitat and for acceleration of existing erosion.	Demarcate the drainage area as a no-go zone prior to construction	ECO & Contractor	-	-
B168 - B169	Visually sensitive seasonal stream in high erosion type soils. IMPACT: Visual degradation due to erosion is risk.	Use the existing road crossing. Erosion protection measures must be installed around foundations. Soil surface around tower must be reinforced by packing rock as a paving around anchors and tower foundation.	ECO / CELO	-	V
B168 – B170	Stream crossing that will attract birds. IMPACT: Powerline / bird collisions	Both earth wires between tower B168 and tower B170 require the installation of Bird Flight Diverters (large spirals) Specifications for the correct marking of both earth wires can be found in the document titled "Specifications for Bird flight Diverters Installation on a Transmission Line" (APPENDIX 4) and the "ESKOM Collision Guidelines" (APPENDIX 5)	ECO / Contractor	The EWT insists on strict adherence to recommendations and specifications provided in this EMP report and its appendices. Failing to do so, the EWT would request that the mitigation devices be reapplied correctly, at the contractor's cost	-