



**Western Cape  
Government**

Department of Environmental Affairs and  
Development Planning

# **BASIC ASSESSMENT REPORT**

THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.

**APRIL 2024**




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## BASIC ASSESSMENT REPORT

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THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.**

**APRIL 2024**

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(For official use only)	
Pre-application Reference Number (if applicable):	
EIA Application Reference Number:	
NEAS Reference Number:	
Exemption Reference Number (if applicable):	
Date BAR received by Department:	
Date BAR received by Directorate:	
Date BAR received by Case Officer:	

### GENERAL PROJECT DESCRIPTION

(This must include an overview of the project including the Farm name/Portion/Erf number)

**THE PROPOSED ESTABLISHMENT OF A 132 KV OVERHEAD POWERLINE (DE HOOP 132 KV OVERHEAD POWERLINE) AND LOOP-IN, LOOP-OUT STATION FROM THE ESKOM NATIONAL ELECTRICITY GRID TO THE EXISTING DE HOOP HOUSING DEVELOPMENT SUBSTATION, THAT WILL TRAVERSE THE FARMS RE/1113, 18/766, 13/766, RE/8/766, 22/766, 24/766 RE/15/766, AND ERVEN 373, 12081 AND 12496, NEAR MALMESBURY AND ABBOTSDALE, SWARTLAND MUNICIPALITY, WESTERN CAPE.**

**REFERENCE NUMBER: 16/3/3/6/7/1/F5/16/2019/23**

## IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THIS BASIC ASSESSMENT REPORT

1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.
2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".

3. *Submission of documentation, reports and other correspondence:*

The Department has adopted a digital format for corresponding with proponents/applicants or the general public. If there is a conflict between this approach and any provision in the legislation, then the provisions in the legislation prevail. If there is any uncertainty about the requirements or arrangements, the relevant Competent Authority must be consulted.

The Directorate: Development Management has created generic e-mail addresses for the respective Regions, to centralise their administration. Please make use of the relevant general administration e-mail address below when submitting documents:

**[DEADPEIAAdmin@westerncape.gov.za](mailto:DEADPEIAAdmin@westerncape.gov.za)**

Directorate: Development Management (Region 1):  
City of Cape Town; West Coast District Municipal area;  
Cape Winelands District Municipal area and Overberg District Municipal area.

**[DEADPEIAAdmin.George@westerncape.gov.za](mailto:DEADPEIAAdmin.George@westerncape.gov.za)**

Directorate: Development Management (Region 3):  
Garden Route District Municipal area and Central Karoo District Municipal area

General queries must be submitted via the general administration e-mail for EIA related queries. Where a case-officer of DEA&DP has been assigned, correspondence may be directed to such official and copied to the relevant general administration e-mail for record purposes.

All correspondence, comments, requests and decisions in terms of applications, will be issued to either the applicant/requester in a digital format via email, with digital signatures, and copied to the Environmental Assessment Practitioner ("EAP") (where applicable).

4. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.
5. All applicable sections of this BAR must be completed.
6. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner ("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.
7. This BAR is current as of **April 2024**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at <http://www.westerncape.gov.za> to check for the latest version of this BAR.
8. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations

when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.

9. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this Report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.
10. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.
11. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.
12. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.
13. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.
14. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link <https://screening.environment.gov.za/screeningtool> to generate the Screening Tool Report. The screening tool report must be attached to this BAR.
15. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ("NEM:AQA"), the submission of the Report must also be made as follows, for-  
Waste Management Licence Applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (Tel: 021-483-2728/2705 and Fax: 021-483-4425) at the same postal address as the Cape Town Office.

Atmospheric Emissions Licence Applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (Tel: 021 483 2888 and Fax: 021 483 4368) at the same postal address as the Cape Town Office.

## DEPARTMENTAL DETAILS

<b>CAPE TOWN OFFICE:</b> <b>DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 1)</b> (City of Cape Town, West Coast District, Cape Winelands District & Overberg District)	<b>GEORGE REGIONAL OFFICE:</b> <b>DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 3)</b> (Central Karoo District & Garden Route District)
<p>The completed Form must be sent via electronic mail to:  <a href="mailto:DEADPEIAAdmin@westerncape.gov.za">DEADPEIAAdmin@westerncape.gov.za</a></p> <p>Queries should be directed to the Directorate:                      Development Management (Region 1) at:                      E-mail: <a href="mailto:DEADPEIAAdmin@westerncape.gov.za">DEADPEIAAdmin@westerncape.gov.za</a>                      Tel: (021) 483-5829</p> <p>Western Cape Government                      Department of Environmental Affairs and Development                      Planning                      Attention: Directorate: Development Management (Region                      1)                      Private Bag X 9086                      Cape Town,                      8000</p>	<p>The completed Form must be sent via electronic mail to:  <a href="mailto:DEADPEIAAdmin.George@westerncape.gov.za">DEADPEIAAdmin.George@westerncape.gov.za</a></p> <p>Queries should be directed to the Directorate: Development                      Management (Region 3) at:                      E-mail: <a href="mailto:DEADPEIAAdmin.George@westerncape.gov.za">DEADPEIAAdmin.George@westerncape.gov.za</a>                      Tel: (044) 814-2006</p> <p>Western Cape Government                      Department of Environmental Affairs and Development                      Planning                      Attention: Directorate: Development Management (Region                      3)                      Private Bag X 6509                      George,                      6530</p>

### MAPS

<b>Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.</b>	
Locality Map:	<p>The scale of the locality map must be at least 1:50 000.                      For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map.                      The map must indicate the following:</p> <ul style="list-style-type: none"> <li>• an accurate indication of the project site position as well as the positions of the alternative sites, if any;</li> <li>• road names or numbers of all the major roads as well as the roads that provide access to the site(s)</li> <li>• a north arrow;</li> <li>• a legend; and</li> <li>• a linear scale.</li> </ul> <p>For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken.</p> <p>Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.</p>
<b>Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.</b>	
Site Plan:	<p>Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:</p> <ul style="list-style-type: none"> <li>• The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale.</li> <li>• The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan.</li> <li>• On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided.</li> <li>• The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan.</li> <li>• The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan.</li> <li>• Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development <b>must</b> be clearly indicated on the site plan.</li> <li>• Servitudes and an indication of the purpose of each servitude must be indicated on the site plan.</li> <li>• Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to):                         <ul style="list-style-type: none"> <li>○ Watercourses / Rivers / Wetlands</li> <li>○ Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable);</li> <li>○ Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&amp;DP");</li> <li>○ Ridges;</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Cultural and historical features/landscapes;</li> <li>○ Areas with indigenous vegetation (even if degraded or infested with alien species).</li> <li>● Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted.</li> <li>● North arrow</li> </ul> <p>A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.</p>
Site photographs	Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as <b>Appendix C</b> . The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.
Biodiversity Overlay Map:	A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan. The Map must be attached to this BAR as <b>Appendix D</b> .
Linear activities or development and multiple properties	GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system. Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as <b>Appendix A3</b> .

## ACRONYMS

DAFF:	Department of Forestry and Fisheries
DEA:	Department of Environmental Affairs
DEA& DP:	Department of Environmental Affairs and Development Planning
DHS:	Department of Human Settlement
DoA:	Department of Agriculture
DoH:	Department of Health
DWS:	Department of Water and Sanitation
EMPr:	Environmental Management Programme
HWC:	Heritage Western Cape
NFEPA:	National Freshwater Ecosystem Protection Assessment
NSBA:	National Spatial Biodiversity Assessment
TOR:	Terms of Reference
WCBSP:	Western Cape Biodiversity Spatial Plan
WCG:	Western Cape Government

## ATTACHMENTS

**Note:** The Appendices must be attached to the BAR as per the list below. Please use a ✓ (tick) or a x (cross) to indicate whether the Appendix is attached to the BAR.

The following checklist of attachments must be completed.

APPENDIX			✓ (Tick) or x (cross)
Appendix A:	Maps		
	Appendix A1:	Locality Map	✓
	Appendix A2:	Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning	
	Appendix A3:	Map with the GPS co-ordinates for linear activities	✓
Appendix B:	Appendix B1:	Site development plan(s)	✓
	Appendix B2	A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;	
Appendix C:	Photographs		
Appendix D:	Biodiversity overlay map		✓
Appendix E:	Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality.		
	Appendix E1:	Final comment/ROD from HWC	✓
	Appendix E2:	Copy of comment from Cape Nature	
	Appendix E3:	Final Comment from the DWS	
	Appendix E4:	Comment from the DEA: Oceans and Coast	
	Appendix E5:	Comment from the DAFF	
	Appendix E6:	Comment from WCG: Transport and Public Works	
	Appendix E7:	Comment from WCG: DoA	
	Appendix E8:	Comment from WCG: DHS	
	Appendix E9:	Comment from WCG: DoH	

	Appendix E10:	Comment from DEA&DP: Pollution Management	
	Appendix E11:	Comment from DEA&DP: Waste Management	
	Appendix E12:	Comment from DEA&DP: Biodiversity	
	Appendix E13:	Comment from DEA&DP: Air Quality	
	Appendix E14:	Comment from DEA&DP: Coastal Management	
	Appendix E15:	Comment from the local authority	
	Appendix E16:	Confirmation of all services (water, electricity, sewage, solid waste management)	
	Appendix E17:	Comment from the District Municipality	
	Appendix E18:	Copy of an exemption notice	
	Appendix E19	Pre-approval for the reclamation of land	
	Appendix E20:	Proof of agreement/TOR of the specialist studies conducted.	
	Appendix E21:	Proof of land use rights	
	Appendix E22:	Proof of public participation agreement for linear activities	
Appendix F:	Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required.		✓
Appendix G:	Specialist Report(s)		✓
Appendix H:	EMPr		✓
Appendix I:	Screening tool report		✓
Appendix J:	The impact and risk assessment for each alternative		✓
Appendix K:	Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline		
Appendix.....	Any other attachments must be included as subsequent appendices		

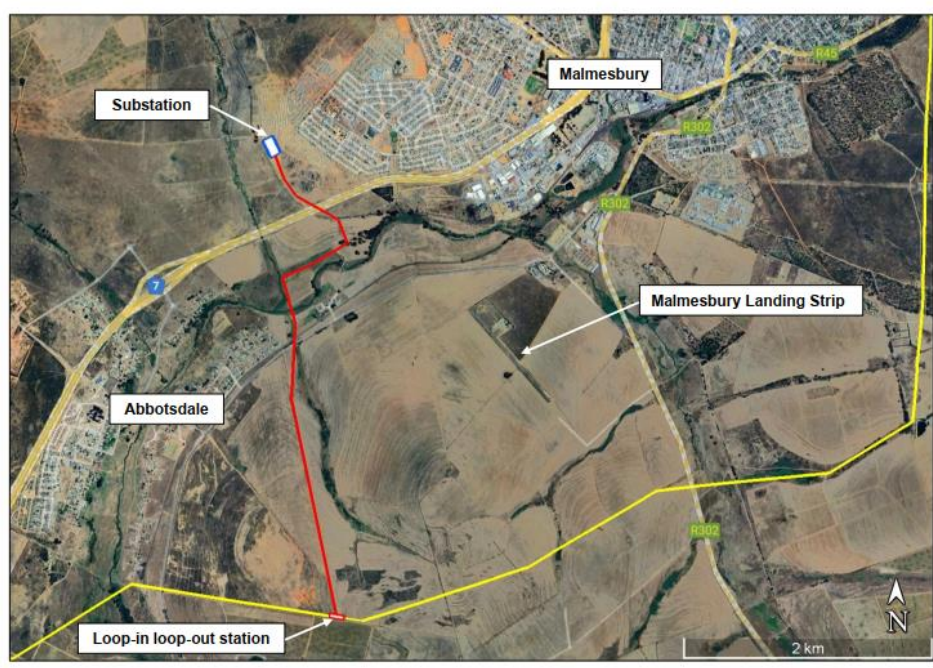






## SECTION A: ADMINISTRATIVE DETAILS

Highlight the Departmental Region in which the intended application will fall	CAPE TOWN OFFICE: REGION 1	
	(City of Cape Town, West Coast District)	
Name of Applicant/Proponent:	Swartland Municipality	
Name of contact person for Applicant/Proponent (if other):	Mr MJ Möller	
Company/ Trading name/State Department/Organ of State:	Swartland Municipality	
Company Registration Number:	Not applicable. The proponent is an Organ of State – i.e. Swartland Municipality	
Postal address:	Private Bag X52	
	Malmesbury	Postal code: 7299
Telephone:	022 487 9400	Cell:
E-mail:	<a href="mailto:swartlandmun@swartland.org.za">swartlandmun@swartland.org.za</a> <a href="mailto:mollerj@swartland.co.za">mollerj@swartland.co.za</a>	Fax:
Company of EAP:	EnviroAfrica CC	
EAP name:	Clinton Geysler (Registered EAP)	
	Lian Roos (Candidate EAP)	
Postal address:	P.O. Box 5367	
	Helderberg	Postal code: 7135
Telephone:	(021) 851 1616	Cell:
E-mail:	<a href="mailto:clinton@enviroafrica.co.za">clinton@enviroafrica.co.za</a> <a href="mailto:lian@enviroafrica.co.za">lian@enviroafrica.co.za</a>	Fax: (086) 512 0154
Qualifications:	MSc Geography and Environmental Management (UJ) BSc Hons Geography and Environmental Management (UJ) BSc Earth Sciences, Majors in Geology & Geography & Environmental Management (UJ) BSc Hons (App Sci) Water Utilisation (UP) BSc Environmental Science (UP) Pr. Sci. Nat (151023)	
EAP registration no:	2021/3287 2022/4550	
Name of landowner:	Agri Industria (Pty) Ltd Erf 12496	
Name of contact person for landowner (if other):	Geoffrey Ian Chait Anton Chait	
Postal address:	PO Box 3380, Cape Town	
		Postal code: 800
Telephone:		Cell: +27(0) 82 654 0002
E-mail:	<a href="mailto:geoff@newportprop.co.za">geoff@newportprop.co.za</a> <a href="mailto:antonlc@iafrica.com">antonlc@iafrica.com</a>	Fax:
Name of landowner:	Transnet SOC Ltd Portions 13 and 18 and the remainder of portion 8 of the Farm Oliphants Fontyn no 766, Malmesbury	
Name of contact person for landowner (if other):		
Postal address:	P.O. Box 36, Cape Town	
		Postal code: 8000
Telephone:		Cell:
E-mail:	<a href="mailto:TPcreditors.western@transnet.net">TPcreditors.western@transnet.net</a> <a href="mailto:ifs@wcaccess.co.za">ifs@wcaccess.co.za</a>	Fax:

Name of landowner:	Oranjefontein Trust Remainder of Farm no 1113, Malmesbury	
Name of contact person for landowner (if other):	Carika Bester Attorney: Lionel Frank	
Postal address:	P.O. Box 230, Malmesbury	
		Postal code: 7299
Telephone:	+27(0) 22 482 1155	Cell: +27(0) 82 926 0347 +27(0) 82 443 3720
E-mail:	<a href="mailto:cbester54@gmail.com">cbester54@gmail.com</a> <a href="mailto:lionel@wcaccess.co.za">lionel@wcaccess.co.za</a>	Fax:
Name of landowner:	Pieter Visser Trust Erf 373, Abbotsdale	
Name of contact person for landowner (if other):	Pieter Simon Visser	
Postal address:	P.O. Box 272, Moorreesburg	
		Postal code: 7310
Telephone:		Cell: +27(0) 82 553 3240
E-mail:	<a href="mailto:pietervisser@tiptranscape.co.za">pietervisser@tiptranscape.co.za</a> <a href="mailto:tabatha@tiptranscape.co.za">tabatha@tiptranscape.co.za</a>	Fax:
Name of landowner:	Swartland Municipality Remainder of Portion 15 of Farm Oliphants Fontyn no 766, Malmesbury	
Name of contact person for landowner (if other):	Madelaine Terblanche Alwyn Zaayman	
Postal address:	1 Church Street, Malmesbury	
		Postal code: 7299
Telephone:	+27(0) 22 487 9400	Cell:
E-mail:	<a href="mailto:terblanchem@swartland.org.za">terblanchem@swartland.org.za</a> <a href="mailto:zaaymana@swartland.org.za">zaaymana@swartland.org.za</a>	Fax:
Name of landowner:	Western Cape Department: Transport and Public Works DR 1111 (Old Kalbaskraal Road)	
Name of contact person for landowner (if other):	Devlin Fortuin Vanessa Stoffels	
Postal address:		
		Postal code:
Telephone:		Cell:
E-mail:	<a href="mailto:devlin.fortuin@westerncape.gov.za">devlin.fortuin@westerncape.gov.za</a> <a href="mailto:Vanessa.Stoffels@westerncape.gov.za">Vanessa.Stoffels@westerncape.gov.za</a>	Fax:
Name of landowner:	SANRAL SOC Ltd Portions 22 and 24 of the Farm Oliphants Fontyn no 766, Malmesbury Erf 12081	
Name of contact person for landowner (if other):	Rene de Kock Shaun Dyers	
Postal address:	P.O. Box 928, Pretoria P.O. Box 400, Westville	
		Postal code: 0001 & 7630
Telephone:	+27(0) 21 957 4600	Cell:
E-mail:	<a href="mailto:Dekockr@nra.co.za">Dekockr@nra.co.za</a> <a href="mailto:DyersS@nra.co.za">DyersS@nra.co.za</a>	Fax:
Municipality in whose area of jurisdiction the proposed activity will fall:	Swartland Local Municipality	
Contact person:	Mr. MJ Möller	
Postal address:	Private Bag X52 Malmesbury	
		Postal code: 7299
Telephone:	022 487 9400	Cell:
E-mail:	<a href="mailto:swartlandmun@swartland.org.za">swartlandmun@swartland.org.za</a> <a href="mailto:mollert@swartland.co.za">mollert@swartland.co.za</a>	Fax:

## SECTION B: CONFIRMATION OF SPECIFIC PROJECT DETAILS AS INCLUDED IN THE APPLICATION FORM

1.	Is the proposed development (please tick):	New	<input checked="" type="checkbox"/>	Expansion	<input type="checkbox"/>
2.	Is the proposed site(s) a brownfield of greenfield site? Please explain.				
Brownfield. The proposed development will take place on land that has been utilised for agricultural purposes (cultivated land and livestock grazing) within the last 10 years.					
3.	<b>For Linear activities or developments</b>				
3.1.	Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:				
<p>The proposed establishment of a 132 kV overhead powerline (<b>De Hoop 132kV overhead powerline</b>) from the Eskom national electricity grid to the existing De Hoop housing development substation, will traverse the farms RE/1113, 18/766, 13/766, RE/8/766, 22/766, 24/766, RE/15/766, and Erven 373, 12081 and 12496, near Malmesbury and Abbottsdale, Swartland Municipality, Western Cape.</p> <p>The proposed 132kV overhead powerline will connect to the existing Dassenberg/Malmesbury 132kV overhead powerline using a loop-in loop-out configuration structure. The proposed 132kV overhead powerline will transmit electricity from this connection point situated on the remainder of the Farm No. 1113 (RE/1113) and Erf no. 373 to the De Hoop housing development substation located on the remainder of Portion 15 of the Farm Olyphants Fontyn no. 766.</p>					
3.2.	Development footprint of the proposed development for all alternatives.				140 000 m <sup>2</sup>
<p>The length of the proposed 132 kV overhead powerline will be approximately 4 500 m long. A servitude of 31 m as stipulated by Eskom is required for such a linear development. Construction contractors and engineers have highlighted that obtaining an Environmental Authorisation (EA) for similar linear developments with a predetermined 31 m servitude often times limits their flexibility in determining the final and optimal placement of the powerline structures (pylons). Therefore, to prevent a possible future amendment application to the EA, an initial 100 m area around the proposed linear development is included in the assessment for the development footprint to allow sufficient space for the final adjustment adjust of the powerline structures before allocating the final 31 m servitude. The development footprint of the physical powerline structures i.e. pylons will however be much smaller with the total physical footprint. The development footprint of the physical powerline structures will be less than 10 000 m<sup>2</sup> or 1 ha. However, the total area would entail the approximately 4 500 m long powerline route with its 31 m servitude. Resulting in an approximate total development area of 140 000 m<sup>2</sup>.</p>					
3.3.	Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.				
<p>The Swartland Municipality is proposing the development of a 132 kV overhead powerline between the De Hoop housing development substation in Malmesbury (under construction at the time of this application) and a connection point on the existing Dassenberg / Malmesbury 132 kV overhead powerline located approximately 5 km south of Malmesbury. The Swartland Municipality intend to connect the De Hoop housing development substation to the Eskom national electricity grid via the proposed 132 kV overhead powerline. The connection to existing Dassenberg/Malmesbury 132 kV overhead powerline will be facilitated by a loop-in loop-out configuration structure.</p>					
					<p><b>SITE CO-ORDINATES</b> 33°29'20.67"S 18°41'27.73"E</p> <p> De Hoop 132kV powerline (proposed)</p> <p> Dassenberg / Malmesbury 132kV powerline (existing)</p> <p> De Hoop substation</p> <p>July 2024</p> 
Figure 1: Locality Map					

3.4.	Indicate how access to the proposed routes will be obtained for all alternatives.																			
Primarily, the existing farm roads will be used to obtain access to the proposed powerline route. Landowner access agreements have been put in place for the purposes of measuring, surveying, charting, and assessing the properties to determine, advise and suggest the most appropriate and least intrusive route for the proposed development.																				
Erf No. 373	C	0	4	6	0	0	1	6	0	0	0	0	0	3	7	3	0	0	0	0
Remainder of Farm No. 1113	C	0	4	6	0	0	0	0	0	0	0	0	1	1	1	3	0	0	0	0
Portion 18 of Farm Olyphants Fontyn, No. 766	C	0	4	6	0	0	0	0	0	0	0	0	7	6	6	0	0	0	1	8
Portion 13 of Farm Olyphants Fontyn, No. 766	C	0	4	6	0	0	0	0	0	0	0	0	7	6	6	0	0	0	1	3
Remainder of Portion 8 of Farm Olyphants Fontyn, No. 766	C	0	4	6	0	0	0	0	0	0	0	0	7	6	6	0	0	0	0	8
Erf No. 12496	C	0	4	6	0	0	0	8	0	0	0	1	2	4	9	6	0	0	0	0
Erf No. 12081 of Farm Olyphants Fontyn, No. 766	C	0	4	6	0	0	0	8	0	0	0	1	2	0	8	1	0	0	0	0
Portion 22 of Farm Olyphants Fontyn, No. 766	C	0	4	6	0	0	0	0	0	0	0	0	7	6	6	0	0	0	2	2
Portion 24 of Farm Olyphants Fontyn, No. 766	C	0	4	6	0	0	0	0	0	0	0	0	7	6	6	0	0	0	2	4
Remainder of Portion 15 of Farm Olyphants Fontyn, No. 766	C	0	4	6	0	0	0	0	0	0	0	0	7	6	6	0	0	0	1	5
3.6.	<b>Starting point (Marker A as per Figure 2 below) co-ordinates for all alternatives</b>																			
	Latitude (S)		33°					30'					16.83"							
	Longitude (E)		18°					41'					41.83"							
	<b>Middle point (Marker D as per Figure 2 below) co-ordinates for all alternatives</b>																			
	Latitude (S)		33°					28'					48.65"							
	Longitude (E)		18°					41'					24.78"							
	<b>Middle point (Marker F as per Figure 2 below) co-ordinates for all alternatives</b>																			
	Latitude (S)		33°					28'					39.83"							
	Longitude (E)		18°					41'					45.25"							
	<b>End point (Marker J as per Figure 2 below) co-ordinates for all alternatives</b>																			
	Latitude (S)		33°					28'					16.46"							
	Longitude (E)		18°					41'					22.38"							

## De Hoop 132kV powerline

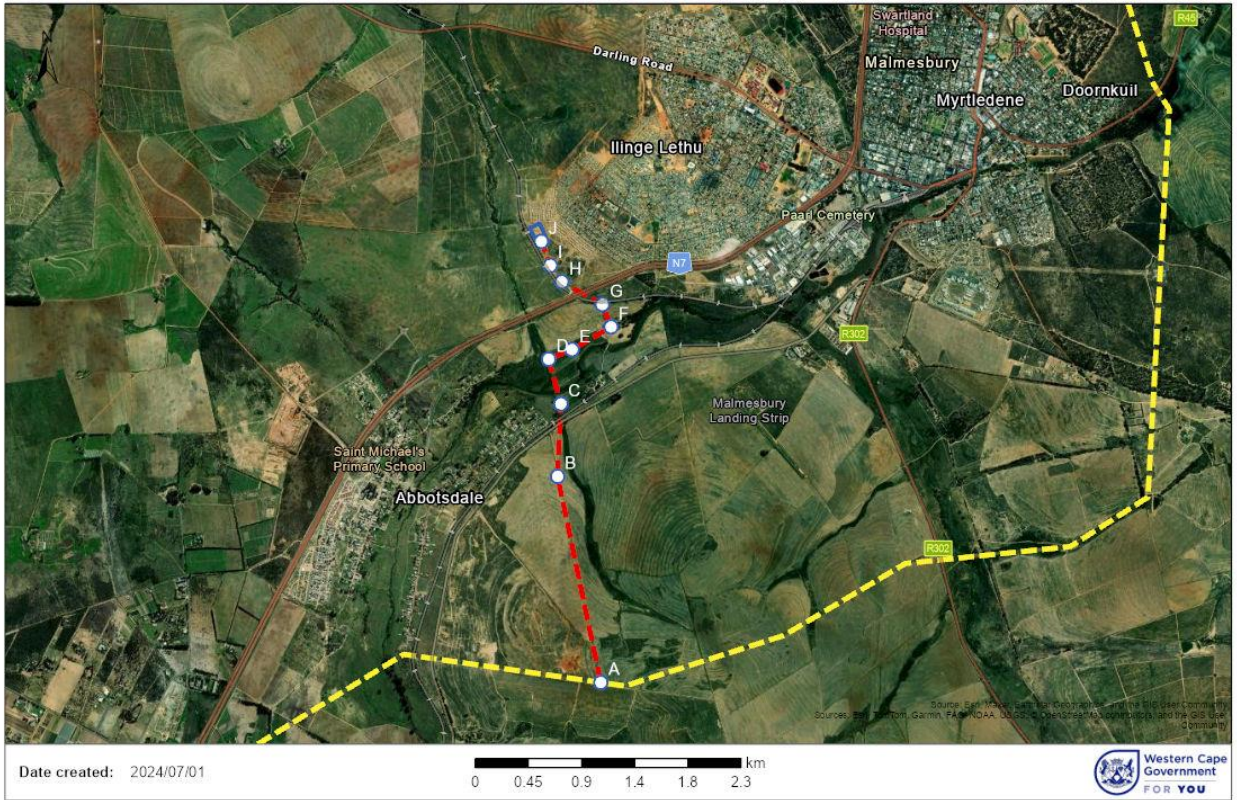


Figure 2: Inflexion points along the route of the proposed 132 kV overhead powerline (red polyline)

Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3. **Such a map is attached as Appendix A3 to this BAR.**

4.	<b>Other developments</b>		
4.1.	Property size(s) of all proposed site(s):		m <sup>2</sup>
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable):		m <sup>2</sup>
4.3.	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:		m <sup>2</sup>
4.4.	Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g. buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities).		
4.5.	Indicate how access to the proposed site(s) will be obtained for all alternatives.		
4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:		
4.7.	Coordinates of the proposed site(s) for all alternatives:		
	Latitude (S)	°	' "
	Longitude (E)	°	' "

## SECTION C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS

### 1. Exemption applied for in terms of the NEMA and the NEMA EIA Regulations

Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes, include a copy of the exemption notice in Appendix E18.		NO
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### 2. Is the following legislation applicable to the proposed activity or development.

The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19.		NO
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1.	YES	
The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3.	YES	
The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA"). If yes, attach a copy of the comment from the relevant authorities as Appendix E13.		NO
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")		NO
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	YES	
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").		NO
The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5.	YES	

### 3. Other legislation

List any other legislation that is applicable to the proposed activity or development.
<p>The proposed powerline will be situated in close proximity to the Malmesbury/Rozenberg aerodrome (civil aviation aerodrome), extending from the western to the north-western direction relative to the landing strip, and will intersect with the flight paths of departing and approaching aircraft.</p> <p>The proposed powerline will be considered an obstacle under Civil Aviation Regulations, potentially posing a risk to aircraft and affecting radio communication, navigation, or instrument landing systems. The obstacle assessment service provider designated by the South African Civil Aviation Authority (SACAA) under the AIC 001-2024 notice, effective 22 April 2024, must evaluate this development and provide comment if necessary. After this assessment, the Director of SACAA will need to make a decision regarding the proposed powerline.</p>

### 4. Policies

Explain which policies were considered and how the proposed activity or development complies and responds to these policies.

### 5. Guidelines

List the guidelines which have been considered relevant to the proposed activity or development and explain how they have influenced the development proposal.
<p>DEADP guidelines - all guidelines were consulted and adhered to when undertaking this Impact Assessment Report, including but not limited to:</p> <ul style="list-style-type: none"> <li>- DEA&amp;DP's Circular EADP 0028/2014: One Environmental Management System</li> <li>- EIA Guideline and Information Document Series</li> <li>- Guideline on Public Participation</li> <li>- Guideline for Environmental Management Plans</li> <li>- Guideline for Involving Biodiversity Specialists in EIA processes.</li> <li>- Guideline on Alternatives</li> <li>- The Guideline on Need and Desirability</li> </ul>

## 6. Protocols

Explain how the proposed activity or development complies with the requirements of the protocols referred to in the NOI and/or application form.

The assessment protocols identified in the DFFE Screening Tool, particularly pertaining to Terrestrial Biodiversity, Aquatic Biodiversity, Palaeontological, Archaeological and Heritage, Landscape (Visual) and Plant Species. In this regard, a Heritage and Palaeontological Impact Assessments, a Biodiversity Impact Assessment, Freshwater Assessment, Visual Impact Assessment and Socio-economic Impact Assessment have been conducted.

## SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Activity No(s):	Provide the relevant <b>Basic Assessment Activity(ies)</b> as set out in <b>Listing Notice 1</b>	Describe the portion of the proposed development to which the applicable listed activity relates.
11	<p>The development of facilities or infrastructure for the transmission and distribution of electricity;</p> <ul style="list-style-type: none"> <li>i. outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or</li> <li>ii. inside urban areas or industrial complexes with a capacity of 275 kilovolts or more.</li> </ul> <p>Excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is:</p> <ul style="list-style-type: none"> <li>a) temporarily required to allow for maintenance of existing infrastructure,</li> <li>b) 2 km or shorter in length;</li> <li>c) Within an existing transmission line servitude; and</li> <li>d) Will be removed within 18 months of the commencement of development</li> </ul>	<p>The proposed 132 kV overhead powerline development will be established both inside and outside of an urban area as it connects the De Hoop housing development substation to the Eskom national electricity grid.</p>
12	<p>The development of;</p> <ul style="list-style-type: none"> <li>i. dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres;</li> <li>ii. infrastructure or structures with a physical footprint of 100 square metres or more;</li> </ul> <p>where such development occurs;</p> <ul style="list-style-type: none"> <li>a) within a watercourse;</li> <li>b) in front of a development setback; or</li> <li>c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;</li> </ul>	<p>The proposed 132 kV overhead powerline development will be crossing the Diep River and; structures with a cumulative footprint of 100 square metres or more will either be constructed within the watercourse or within 32 meters of the watercourse.</p>
19	<p>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;</p> <p>but excluding where such infilling, depositing, dredging, excavation, removal or moving</p> <ul style="list-style-type: none"> <li>a) will occur behind a development setback</li> <li>b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</li> <li>c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;</li> <li>d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies</li> </ul>	<p>The proposed 132 kV overhead powerline development will be crossing the Diep River and structures with a cumulative footprint of 100 square metres or more will either be constructed within the watercourse or within 32 meters of the watercourse.</p> <p>Excavations, removal or moving of material of more than 10 cubic metres from a watercourse is expected to take place during construction.</p>



Activity No(s):	Provide the relevant <b>Basic Assessment Activity(ies)</b> as set out in <b>Listing Notice 3</b>	Describe the portion of the proposed development to which the applicable listed activity relates.
12	<p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>In the Western Cape:</p> <ul style="list-style-type: none"> <li>i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEM:BA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</li> <li>ii. Within critical biodiversity areas identified in bioregional plans;</li> <li>iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;</li> <li>iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or</li> <li>v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister</li> </ul>	<p>Although the site along the route on which the development is proposed is predominantly covered in agricultural (livestock grazing and crop cultivation) and built-up areas, there are some remnants of indigenous vegetation.</p> <p>Therefore, the clearance of an area of 300 square metres or more of indigenous vegetation will likely take place during construction.</p> <p>The site would historically have been covered in Swartland Granite Renosterveld, Swartland Alluvial Renosterveld and the Swartland Shale Renosterveld.</p>
14	<p>The development of</p> <ul style="list-style-type: none"> <li>i. dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or</li> <li>ii. infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs <ul style="list-style-type: none"> <li>a. within a watercourse;</li> <li>b. in front of a development setback; or</li> <li>c. if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.</li> </ul> </li> </ul> <p>In the Western Cape:</p> <ul style="list-style-type: none"> <li>i. Outside urban areas: <ul style="list-style-type: none"> <li>a. A protected area identified in terms of NEMPAA, excluding conservancies;</li> <li>b. National Protected Area Expansion Strategy Focus areas;</li> <li>c. World Heritage Sites;</li> <li>d. Sensitive areas as identified in an environmental management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority;</li> <li>e. Sites or areas listed in terms of an international convention;</li> </ul> </li> </ul>	<p>The proposed 132 kV overhead powerline development will be crossing the Diep River and structures with a footprint exceeding 10 square metres or more will either be constructed within the watercourse or within 32 meters of the watercourse.</p>

Activity No(s):	Provide the relevant <b>Basic Assessment Activity(ies)</b> as set out in <b>Listing Notice 3</b>	Describe the portion of the proposed development to which the applicable listed activity relates.
	<ul style="list-style-type: none"> <li>f. Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</li> <li>g. Core areas in biosphere reserves; or</li> <li>h. Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined.</li> </ul>	
<p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted.</li> <li>• Where additional listed activities have been identified, that have not been included in the application form, and amended application form must be submitted to the competent authority.</li> </ul>		

List the applicable waste management listed activities in terms of the NEM:WA

Activity No(s):	Provide the relevant <b>Basic Assessment Activity(ies)</b> as set out in <b>Category A</b>	Describe the portion of the proposed development to which the applicable listed activity relates.
Not applicable to this development.		

List the applicable listed activities in terms of the NEM:AQA

Activity No(s):	Provide the relevant <b>Listed Activity(ies)</b>	Describe the portion of the proposed development to which the applicable listed activity relates.
Not applicable to this development.		

# SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1. Provide a description of the preferred alternative.



Figure 3: Preferred 132 kV overhead powerline route

The Swartland Municipality intends to build a 132 kV overhead powerline from the De Hoop housing development substation in Malmesbury as a way to connect it to the Eskom national electricity grid. This powerline will connect to an existing 132 kV overhead powerline south of Malmesbury. The proposed powerline will be about 4500 m long and will require a 31 m wide servitude.

A 132 kV overhead powerline is a network of infrastructure designed to transmit electricity over long distances. A typical powerline consists of the following generic infrastructure:

1. Towers / Pylons: These are tall structures made of steel or concrete that support the powerlines. They are spaced at regular intervals along the route to carry the conductors and maintain the required height clearance.
2. Conductors: These are the cables or wires that carry electricity along the powerlines. In a 132 kV powerline, the conductors are designed to handle high voltages efficiently while minimising energy losses.
3. Insulators: Insulators are used to support the conductors and prevent electricity from flowing into the towers or the ground. They are typically made of materials such as glass or porcelain that have high electrical resistance.
4. Substation: Substations are facilities where voltage levels are stepped up or down through transformers in order to facilitate efficient transmission and distribution of electricity to the user (residential, commercial, etc).
5. Servitude: A servitude is a corridor or rights-of-way that grants the operator of the infrastructure, access and use of specific land for installation, maintenance, and operation of the powerline, often through agreements with landowners or relevant authorities. Servitudes are often cleared of vegetation for maintenance purposes.

For this development, a multi-cable 132 kV overhead powerline is proposed with a monopole-type structure (pylon) of 20 m in height in regular intervals (100 m – 200 m) as illustrated in Figure 4 below.

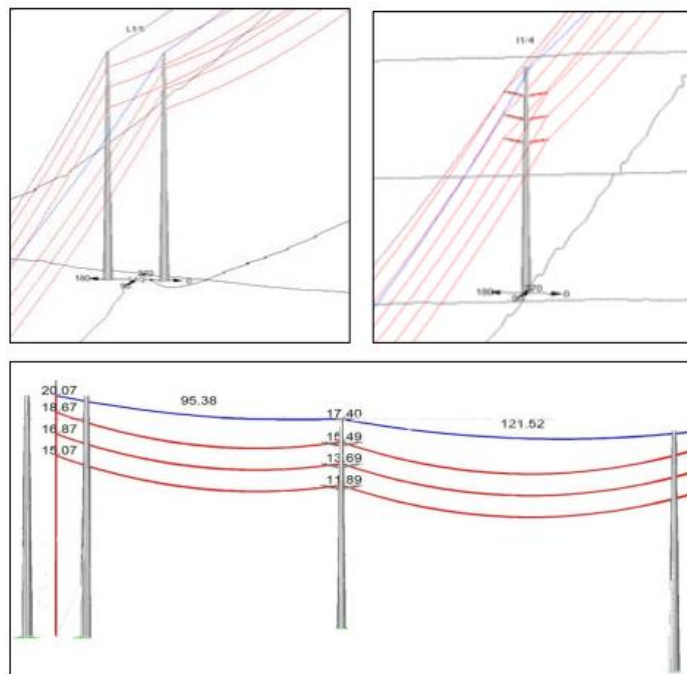


Figure 4: Typical pylons to be used

Preferred 132 kV overhead powerline route (Refer to Figure 3)

1. The proposed 132 kV overhead powerline will be linked to the existing Dassenberg/Malmesbury 132 kV overhead powerline, with the connection facilitated by a loop-in loop-out configuration structure.
2. From there, the proposed 132 kV overhead powerline will traverse agricultural land along an existing farm road in a northerly direction before crossing over tributaries and riparian areas of the Diep River, a railway line and ultimately the Diep River itself.
3. From there it will follow the farm portion boundary in a northeasterly direction before pivoting in a northwesterly direction, crossing a railway line and the N7 roadway before being connected to the De Hoop housing development substation.

The preferred 132 kV overhead powerline route as depicted in Figure 3 has been selected as the preferred alternative. This route follows existing boundary features, such as farm roads and crop fields, to minimise construction impacts and fragmentation on agricultural practices. It also seeks to minimise its visual impact by avoiding residential areas as much as possible by passing through an open area between the residential periphery of Abbotsdale and a farm residence before crossing the Diep River itself.

Furthermore, the previous alternative routes were changed to this preferred option following stakeholder engagement during the pre-application phase. Further consideration was given to the nearby Malmesbury/Rozenberg aerodrome (civil aviation aerodrome) after it was deemed necessary to move the overhead powerline further away from the airfield for aviation safety reasons. The airfield is used by agricultural aircraft (crop dusters) and other smaller aircraft. The preferred route remains within 8 km of the airfield but is now between 1 km and 2 km away at its closest points.

#### Substation requirement

An Environmental Authorisation (EA) from the Department of Environmental Affairs and Development Planning (DEAD&P) for the De Hoop housing development and associated infrastructure has been granted to the Swartland Municipality (Feb 2022). As per the EA, electricity will be supplied from a new 132/11 kV substation which will be built on the southern side of the site. As of August 2024, and as per Google Earth imagery the aforementioned substation is currently under construction.

#### Servitude requirement

A servitude of 31 m is required for a 132 kV overhead powerline. Eskom's requirement stipulates that no structures or vegetation exceeding 4 m in height are allowed within a servitude. The land beneath the overhead powerlines (servitude) however can still be utilised by the landowners for livestock grazing, crop cultivation, etc., subject to Eskom's servitude restrictions.

#### Construction process

Construction comprises broadly three stages, namely preparing the route by removing any limiting elements, and setting up a site office and lay down area. The second phase is the transport and positioning of the pylons. The final stage is the fixing the cables. All three stages involve a medium level of activity and the movement of large vehicles.

2.	Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form ? Include the proof of the existing land use rights granted in Appendix E21.
The zonings of the relevant properties allow for a servitude to be registered.	
3.	Explain how potential conflict with respect to existing approvals for the proposed site (as indicated in the NOI/and or application form) and the proposed development have been resolved.
There are no conflicts with respect to existing approvals.	
4.	Explain how the proposed development will be in line with the following?
4.1	The Provincial Spatial Development Framework.
The Provincial Spatial Development Framework, 2014 (PSDF) states that low income areas should be provided with access to electricity. The proposed development of a 132 kV overhead powerline between the De Hoop housing development substation in Malmesbury and the existing Dassenberg / Malmesbury 132kV overhead powerline will enable present and future low-income housing development in the area. The proposed development aligns with the PSDF.	

4.2	The Integrated Development Plan of the local municipality.
<p>As per the Swartland Municipality's Integrated Development Plan, 2022/2023 (IDP) the following service backlogs have been identified for Malmesbury:</p> <ol style="list-style-type: none"> <li>1. Replacement of obsolete substations and networks.</li> <li>2. No supply capacity available for any developments west of the N7 not yet implemented. New 132/11 kV substation and 132 kV transmission line to be committed to allow services approval of further developments west of the N7.</li> </ol> <p>This service backlog highlights the need for the proposed development and that it is in line with the goals of the IDP.</p>	
4.3	The Spatial Development Framework of the local municipality.
<p>As per the Swartland Municipal Spatial Development Framework, 2023 (SDF), a portion of the proposed 132 kV overhead powerline will be located in Zones K and O of Malmesbury. Zone K focuses on industrial and business expansion, linking Malmesbury and Abbotsdale, while Zone O features medium to high density residential, government uses, sports grounds, and educational facilities. The proposed 132 kV overhead powerline aims to supply electricity to the De Hoop integrated development on Malmesbury's western periphery.</p> <p>The proposed development aligns with the SDF. It suggests creating a third Eskom bulk supply point for the De Hoop integrated development supporting future housing demands and enhancing residential density in Malmesbury. The De Hoop integrated development aligns with the SDF's vision for integrated opportunities and diverse housing types in planned developments.</p>	
4.4.	The Environmental Management Framework applicable to the area.
<p>As per Screening Tool Report, no intersections with an Environmental Management Framework applicable to the area was found.</p>	
5.	Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.
<p>The site would historically have been covered in Swartland Granite Renosterveld, Swartland Alluvial Renosterveld and the Swartland Shale Renosterveld. And would historically been classified as vulnerable, endangered and critically endangered, however, according to the SANBI Red List of Ecosystem: Remnants, the proposed site does not contain any vulnerable, endangered or critically endangered vegetation.</p>	
6.	Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.
<p>The Western Cape Biodiversity Spatial Plan has been considered, and has been assessed in the Terrestrial Biodiversity Impact Assessment (<b>Appendix G2</b>). According to the 2017 Western Cape Biodiversity Spatial Plan (WCBSP) (CapeNature, 2017), portions of the proposed overhead powerline will traverse over the Diep River, which is classified as an Aquatic CBA. A 132 kV overhead powerline, its construction and operation, its structures and overhead cables, are essentially low-impact activities. The tower structures (pylons) have a small physical development footprint and the cumulative hectares lost is foreseen to be less than 1 hectare.</p>	

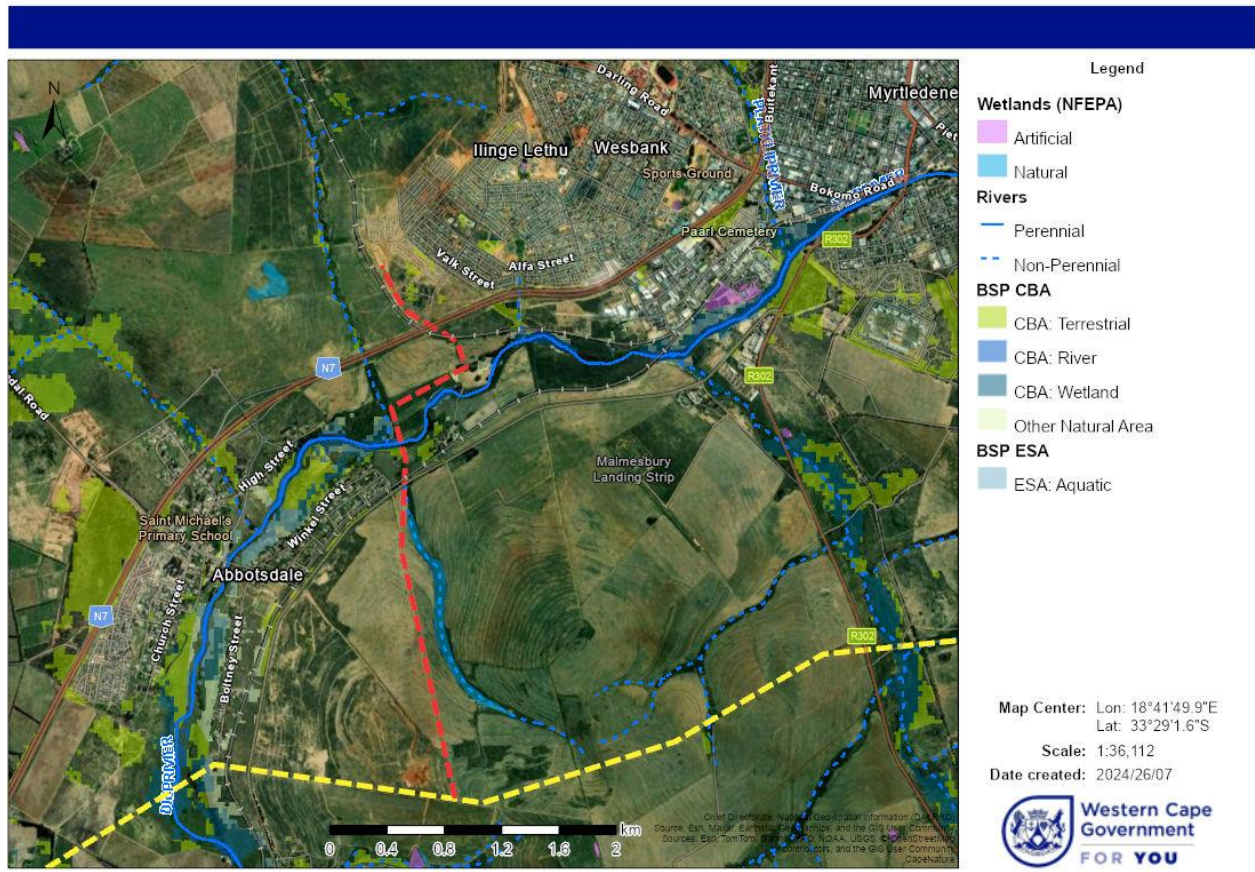


Figure 5: BSP & NFEPA wetlands map

7.	Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.
Not applicable.	
8.	Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.
No changes.	
9.	Explain how the proposed development will optimise vacant land available within an urban area.
Not applicable.	
10.	Explain how the proposed development will optimise the use of existing resources and infrastructure.
The proposed 132 kV overhead powerline line development will use existing resources as far as possible, but the infrastructure will be predominantly new infrastructure. The proposed development will connect the existing De Hoop housing development substation to the Eskom national electricity grid.	
11.	Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E16).
No additional services will be required from the local authority.	

12.	<p>In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.</p>
<p>While the concept of need and desirability relates to the type of development being proposed, essentially, the concept of need and desirability can be explained in terms of the general meaning of its two components in which need refers to time and desirability to place – i.e. is this the right time and is it the right place for locating the type of land-use/activity being proposed ? Need and desirability can be equated to wise use of land – i.e. the question of what the most sustainable use of land is.</p> <p>The proposed 132 kV overhead powerline development will enable the Swartland Municipality to connect the De Hoop housing development and by extension any possible future developments in Malmesbury to the Eskom national electricity grid. It will increase the electricity capacity and ensure reliable electricity supply to residential and commercial users thereby promoting a socio-economic environment that is conducive for the sustainable development of all communities.</p> <p>Electricity capacity and supply has been highlighted as a key issue in both the West Coast District Municipality's IDP and the Swartland Local Municipality's IDP. Increasing the capacity of the electrical infrastructure will provide a stable supply and encourage development in areas which have previously been limited due to the inadequate electricity supply.</p> <p>The proposed 132 kV overhead powerline development will traverse areas of different land uses. It will traverse areas utilised by agriculture (livestock grazing and crop cultivation) and by residential whilst crossing a watercourse and transport infrastructure (railways and roadways).</p> <p>The 132 kV overhead powerline structures (pylons) will be located in a servitude acquired by the applicant for the specific purpose. Eskom's requirement stipulates that no structures or vegetation exceeding 4 m in height are allowed within a servitude; however, the land beneath the overhead lines can be utilised by the landowners (livestock grazing, crop cultivation, etc).</p> <p>Not proceeding with the 132 kV overhead powerline will not adversely affect the current environmental conditions or agricultural practices; however, it would prevent the realisation of the socio-economic benefits that a reliable electricity supply would bring to the housing developments in Malmesbury. Implementing the 132 kV overhead powerline will help in alleviating the electricity supply service backlogs that have been identified for Malmesbury as per the Swartland Municipality's IDP.</p> <p>From an environmental perspective, the proposed overhead 132 kV powerline route is ideally located, with the physical footprint of the pylons having little to no environmental constraints. The land beneath the overhead lines (servitude) can still be utilised by the landowners for livestock grazing, crop cultivation, etc., subject to Eskom's servitude restrictions.</p> <p>The proposed overhead 132 kV, its construction and operation, its structures and overhead cables, are essentially low-impact activities. The tower structures (pylons) have a small physical development footprint and the cumulative hectares lost is foreseen to be less than 1 hectare.</p>	



## SECTION F: PUBLIC PARTICIPATION

The Public Participation Process ("PPP") must fulfil the requirements as outlined in the NEMA EIA Regulations and must be attached as Appendix F. Please note that if the NEM:WA and/or the NEM:AQA is applicable to the proposed development, an advertisement must be placed in at least two newspapers.

1. Exclusively for linear activities: Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in Appendix E22.

The competent authority has yet to indicate what PPP should be followed.

2. Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix F.

The PPP as indicated in the application form has been complied with. Refer to the PPP appendices for proof of the pre-application PPP that was conducted. It is conducted for the proposed development in accordance with the requirements outlined in Chapter 6, Regulation 41 of the NEMA EIA Regulations 2014 (as amended).

3. Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.

Department of Agriculture  
Department of Water and Sanitation  
Department of Rural Development and Land Reform Spatial Planning  
Heritage Western Cape  
CapeNature  
West Coast District Municipality  
Swartland Local Municipality  
Eskom  
Transnet  
SANRAL – South African Road Agency Limited  
SACAA – South African Civil Aviation Authority  
ATNS - Air Traffic & Navigation Services  
BirdLife SA

4. If any of the State Departments and Organs of State were not consulted, indicate which and why.

5. If any of the State Departments and Organs of State did not respond, indicate which.

6. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated into the development proposal.

Concerns have been raised regarding the proximity of the proposed powerline to the nearby landing strip, which were highlighted during the pre-application phase. In response, adjustments have been made to the route to mitigate the impact associated with these concerns and to enhance safety. However, it is essential for the Civil Aviation Authority to provide their input on this matter. Any additional issues raised by I&APs going forward will be addressed and represented in the Comment and Response Report of the Final BAR.

### Note:

A register of all the I&AP's notified, including the Organs of State, and all the registered I&APs must be included in Appendix F. The register must be maintained and made available to any person requesting access to the register in writing.

The EAP must notify I&AP's that all information submitted by I&AP's becomes public information.

Your attention is drawn to Regulation 40 (3) of the NEMA EIA Regulations which states that "Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to

*comment on reports and plans contemplated in subregulation (1) prior to submission of an application but **must** be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority."*

All the comments received from I&APs on the pre-application BAR (if applicable and the draft BAR must be recorded, responded to and included in the Comments and Responses Report and must be included in Appendix F.

All information obtained during the PPP (the minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded) and must be included in Appendix F.

Please note that proof of the PPP conducted must be included in Appendix F. In terms of the required "proof" the following is required:

- a site map showing where the site notice was displayed, dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
  - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
  - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
  - if a facsimile was sent, a copy of the facsimile Report;
  - if an electronic mail was sent, a copy of the electronic mail sent; and
  - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

## SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

### 1. Groundwater

1.1.	Was a specialist study conducted?		NO
1.2.	Provide the name and or company who conducted the specialist study.		
Not applicable.			
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.		
According to the Department of Agriculture of the Western Cape Provincial Government's web-mapping application, CapeFarmMapper 3, an underlying aquifer, classified as minor, intergranular and fractured is present. It has a moderate vulnerability. The proposed development is not expected to have any substantial impact on this aquifer.			
1.4.	Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development.		
According to CapeFarmMapper 3, the groundwater depth varies between 10.95 mbgl and 11.20 mbgl over the area.			

## 2. Surface water

2.1.	Was a specialist study conducted?	YES
2.2.	Provide the name and/or company who conducted the specialist study.	

Dr. Dirk van Driel – Watsan Africa

2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.
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The Diep River, a perennial river is present on properties over which the 132 kV overhead powerline is proposed. The proposed 132 kV overhead powerline will be crossing over tributaries / drainage lines and the associated riparian areas of the Diep River, and the Diep River itself. The tributaries / drainage lines have been classified as non-perennial rivers; however, a wetland as identified under the National Freshwater Ecosystem Priority Areas (NFEPA) database is associated with the tributaries / drainage lines of the Diep River.

According to the Freshwater Report (**Appendix G1**), the Diep River and its drainage lines are already impacted, with many major impacts from agriculture, urban and industrial development and roads, bridges and railway lines and has therefore already lost much of its ecological functioning. A 132 kV overhead powerline its construction and operation, its structures and overhead cables, are essentially low-impact activities. It is not expected that the 132 kV transmission line would measurably add to the already existing impacts. It is therefore concluded that a General Authorisation regarding Section 21 (c) and (i) water uses for the development in terms of the National Water Act 36 of 1998 is the correct level of approval. A Water Use License is not called for.

The drainage lines are identified as both a Terrestrial and an Aquatic / River Critical Biodiversity Areas (CBA) on the Western Cape Biodiversity Spatial Plan 2017 (WCBSBP) as well as Ecological Support Areas (ESA). The transmission line route has taken the drainage lines and the CBAs into consideration and avoid these areas as far as possible (Figure 6).

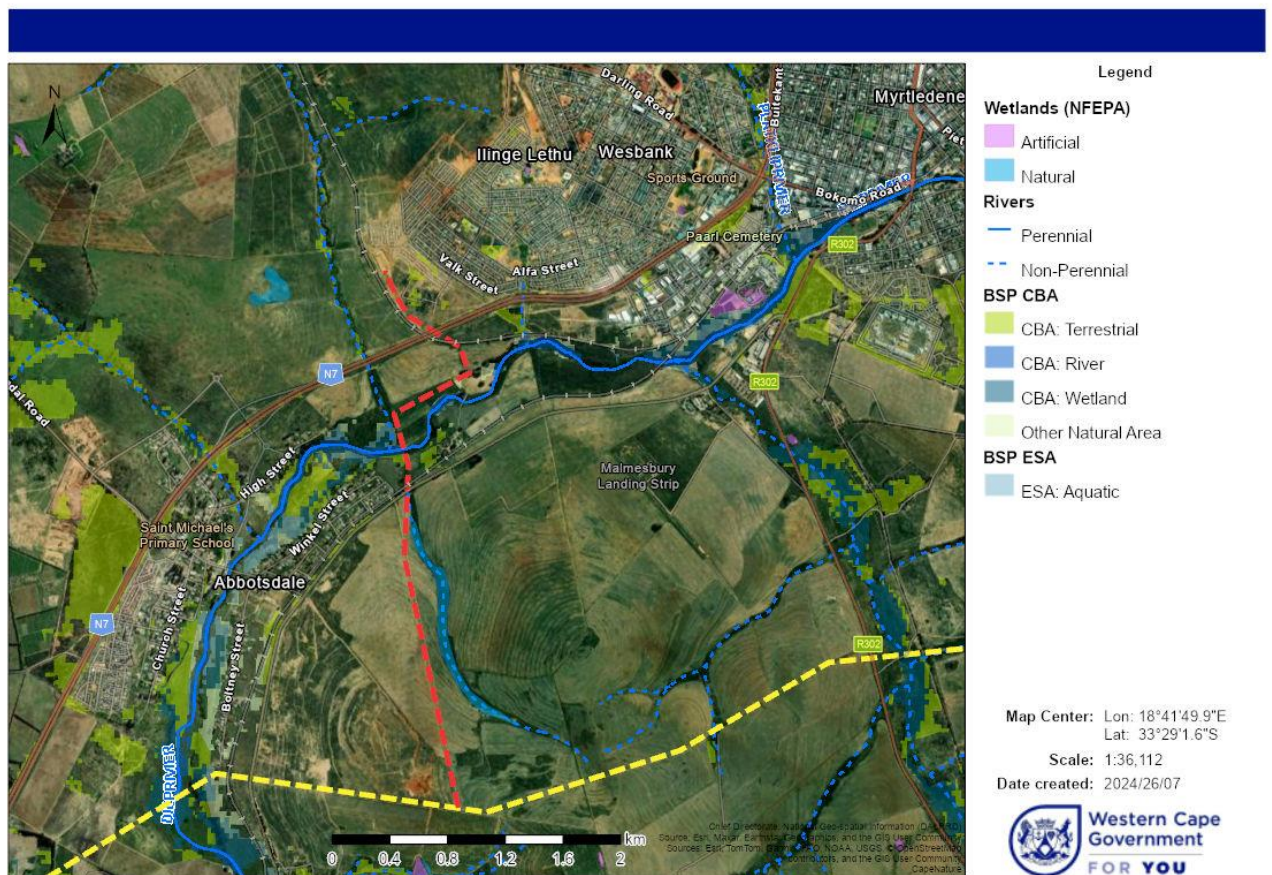
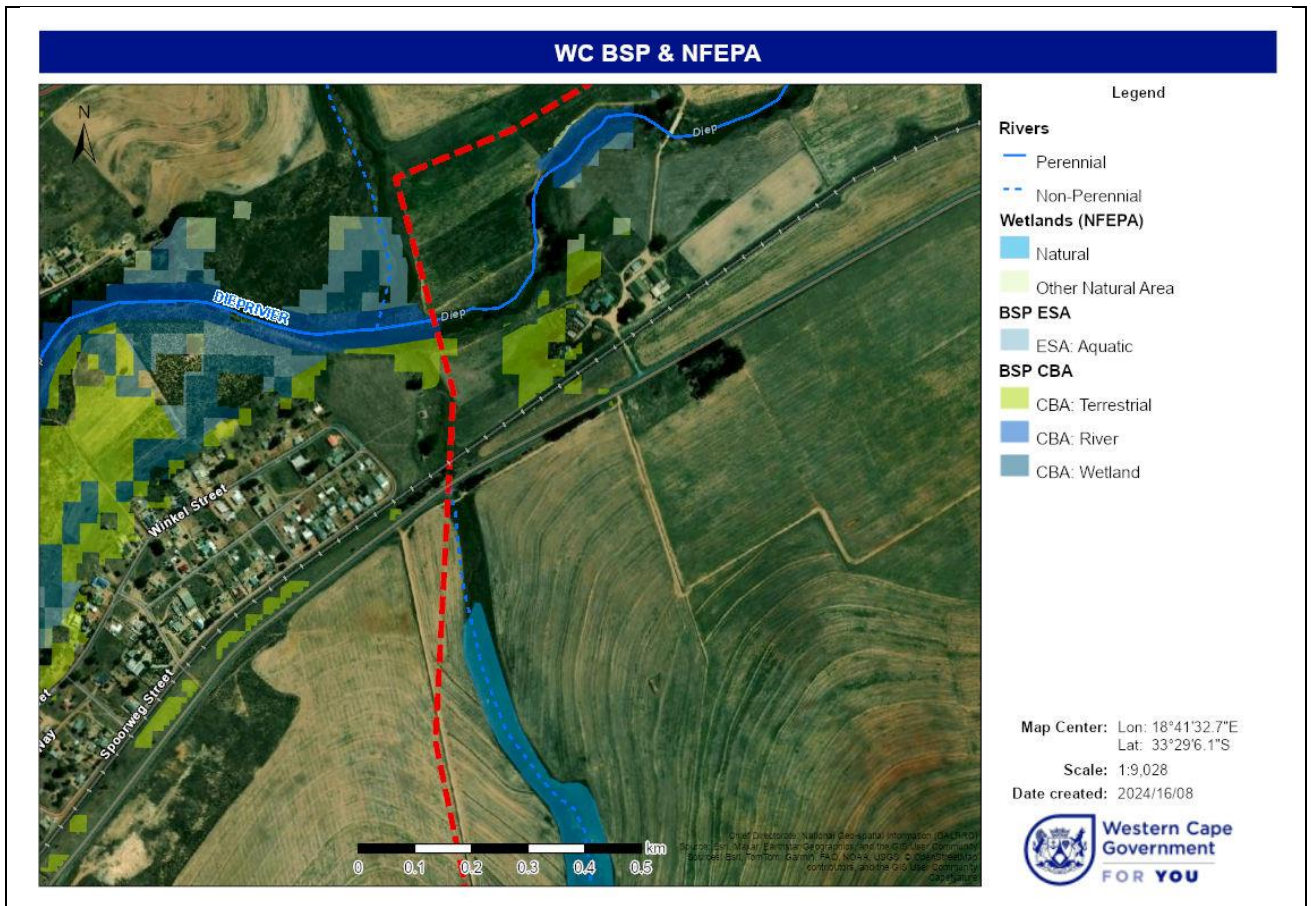


Figure 6: BSP & NFEPA wetlands map



### 3. Coastal Environment

3.1.	Was a specialist study conducted?		NO
3.2.	Provide the name and/or company who conducted the specialist study.	Not applicable.	
3.3.	Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development.	Not applicable.	
3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.	Not applicable.	
3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.	Not applicable.	

### 4. Biodiversity

4.1.	Were specialist studies conducted?	YES	
4.2.	Provide the name and/or company who conducted the specialist studies.	Mr. Jacques van Rensburg - Nature Works Environmental Consultancy	
4.3.	Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.	<p>According to the Terrestrial Biodiversity report, the impacts associated with the proposed establishment of a powerline from the national grid to the De Hoop substation involve the following: Historical composition of the development area included Swartland Shale Renosterveld, Swartland Alluvium Fynbos, and Swartland Granite Renosterveld, each facing distinct conservation challenges. However, no intact remnants of these vegetation types were observed within the development area. Consequently, the habitat conditions range from moderately degraded watercourses with some restoration potential to highly degraded areas with low restoration potential and transformed habitats with no restoration potential.</p>	
4.4.	Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.		

According to the Terrestrial Biodiversity Assessment ( <b>Appendix G2</b> ), the proposed development affects Critical Biodiversity Areas (CBA1: Aquatic, CBA1: Terrestrial, CBA2: Terrestrial) and Ecological Support Areas (ESA1: Aquatic, ESA2: Watercourse) as outlined in the Western Cape Biodiversity Spatial Plan 2017 (WCBSP). While crucial for biodiversity maintenance, the actual impact is limited to a relatively small portion of the Diep River degraded watercourse, resulting in a defined medium negative significance. The preferred powerline route avoids these CBA and ESA areas as far as possible, but overlap may exist in places.	
4.5.	Explain what impact the proposed development will have on the site specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.
The proposed 132 kV overhead powerline, assessed through a Terrestrial Biodiversity Impact Assessment, intersects with Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) as per the Western Cape Biodiversity Spatial Plan 2017. Despite these areas being fragmented and degraded, the powerline's construction and operation are considered low impact, with minimal additional harm to existing conditions. The development's route has been carefully chosen to avoid these sensitive zones as much as possible. Although some overlap with CBAs and ESAs is unavoidable, the overall impact is confined to a small section of the degraded Diep River watercourse, resulting in a medium negative significance.	
4.6.	If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan.
Not applicable. The proposed development is not located within a protected area.	
4.7.	Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.
The potential presence of fauna on the site required that a Terrestrial Biodiversity Impact Assessment be done. The assessment found no limiting factors, or the need for a site or layout amendment. No mammals, such as aardvark, bat-eared fox, duiker, and porcupine, indicative of an intact ecosystem, were observed and are not likely to be present due to the surrounding landuse. No Species of Conservation Concern (SCC) were observed during the site assessment. It did identify "no-go" areas (CBAs), but these are somewhat fragmented and degraded. A 132 kV overhead powerline, its construction and operation, its structures and overhead cables, are essentially low-impact activities. It is not expected that the 132 kV overhead powerline would measurably add to the already existing impacts.	

## 5. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.
No geographical aspects are expected to be significantly impacted by the proposed development.

## 6. Heritage Resources

6.1.	Was a specialist study conducted?	YES	NO
6.2.	Provide the name and/or company who conducted the specialist study.		
A heritage Notice of intent to Develop was submitted to Heritage Western Cape. Final comment was received (dated 03 May 2024)(See Appendix E1). The Final comment states:  <i>"This matter was discussed at the Heritage Officers meeting held on 19 February 2024. You are hereby notified that, since there is no reason to believe that the proposed powerlines between Abbotsdale and Malmesbury in Swartland will impact heritage resources, no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required. HWC chance finds procedure to be included in the environmental authorization.</i>  <i>However, should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately, and Heritage Western Cape must be notified without delay."</i>			
6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.		
N/A			

## 7. Historical and Cultural Aspects

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.
Not applicable.

## 8. Socio/Economic Aspects

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.
<p>According to the Socio - Economic Impact Assessment (Appendix G5) the existing social and economic characteristics of the community in the vicinity of the proposed site is as follows:</p> <p><u>Demographics:</u>            In 2022, the Swartland population of 140 697 people represented 32 515 households with an average household size of 4.2 people. Three-quarters of the total population live in urban areas, while slightly more than a quarter resides in rural areas. The community profile of Swartland households living in the municipal area according to StatsSA 2011 and the 2022 Socio-Economic Profile for Swartland.</p> <p>According to the 2022 Socio-Economic Profile for Swartland, the average annual growth rate of the Swartland population is calculated as 3.3%. The population is fairly equally distributed in terms of gender with 50.3% females and 49.7% males. Of note are the 28.5% female-headed households, whilst 39.2% of households have partners who are married or live as married partners. Thus, 60% of households are single parents in one way or another (never married, widowed, separated or divorced). The population of the Swartland is relatively young as the Youth (0-14) represents 25.2%, the working-age population (15 – 64) represents 69.8% and the Elderly (65+) 5% of the total population.</p> <p><u>Education:</u>            According to the Socio-Economic Profile for Swartland, 2022, learner enrolment in Swartland has increased consistently between 2019 and 2021, with increases ranging between 381 and 504 additional learners per year for this period. In 2019, 2020 and 2021, the learner enrolment numbers were 18 269, 18 650 and 19 154 respectively. There was a consistent decline in the Grade 12 dropout rate with 25.9% in 2019, 25.3% in 2018 and 23.9% in 2021. The matric pass rate increased from 84% in 2018 to 85.8% in 2020 and remained unchanged in 2021. The learner-teacher ratio is 32.9.]</p> <p><u>The Labour Market:</u>            According to StatsSA, 2011 half (49.8% or 14 603) of the households within the municipal area earned less than R3 500 per month and as indigent households, qualify for subsidized housing and free civil and electrical services provision. The dependency ratio is 43.3% meaning that for every dependent non-working aged person there are two working-age persons. However, adding the number of people that are unemployed, discouraged work seekers and those not actively involved in the economy, the dependency ratio changes to 93% meaning that for every person actively involved in the economy there is a person that is not involved.</p> <p><u>Economy:</u>            The Swartland Municipal area has the second largest economy in the WCD, with a GDP of R8.9 billion in 2020 with Malmesbury comprising the economic hub. More than three quarters (78.3%) of the contribution to Swartland's economy comes from the five main sectors that are manufacturing (R2 010.3 million or 22.4%), wholesale and retail, catering and accommodation (R1 450.9 million or 16.2%) and agriculture, forestry and fishing (R1 378.1 million or 15.3%). Finance, insurance, real estate and business services are the fourth biggest contributor (R1 115.6 million or 12.4%) whilst Government services (R1 075.6 million or 12%) follow as the fifth biggest contributor.</p> <p>The economic growth rate is contributed to by agriculture forestry and fishing and in manufacturing whilst the tertiary sector experienced a slower growth. These trends are not driven from within the municipal area or the region but by the national economy. Historical trends between 2016 and 2020 indicates that the municipal economy grew marginally at an average annual growth rate of 0.1%. Although the secondary sector contracted, the primary and tertiary sectors continued to grow at 2.1 and 0.3% respectively. The growth can be attributed to the good growth in the agriculture, forestry &amp; fishing sector (2.1%) as well as relatively strong growth in the finance, insurance, real estate &amp; business services (2.0%) and general government (2.3%) sectors. The biggest contractions occurred in the construction sector (-6.1%), the transport, storage and communication sector (-3.5%) and the electricity, gas and water sector (-3.3%). The 2020 recession made a substantial dent in the average growth rate over the period, but load shedding and the drought within the province also played a major role in prior years.</p>	

8.2.	Explain the socio-economic value/contribution of the proposed development.
<p>According to similar facilities, an estimated Capital Expenditure of ±R2 million per km will be required to develop the powerline. The expected value of construction and employment over approximately eighteen(±18) months is ±R10 million and ±R2 million respectively. Effort should be made that locals and previously disadvantaged individuals should benefit at least ±R1.6 million of the wage bill. The number of employment opportunities (direct) generated during the construction period of ±18 months, was calculated as sixty four (64) opportunities. Of these who does construction work 63% (or 40 people) are unskilled, 23% (or 15 people) are semi-skilled and 14% (9 people) are skilled. The concrete contractor is most likely from the Western Cape. These jobs include, but are not limited to site clearing, general construction work (boxing, concrete mixing and casting), digging trenches, creation of fire breaks and operating the construction vehicles. The no go alternative has no impact on the population of Malmesbury and its immediate surroundings.</p> <p>The generation of job and contract opportunities may cause an influx of construction and maintenance workers. Applying the directive that at least 80% of those employed should be local, 51 opportunities should be reserved for locals of whom 32 would be unskilled, 12 would be semi-skilled and 7 would be skilled. Given the Swartland municipal trend of employed, unemployed, discouraged work seekers and economically not active people, the same trend should apply in Malmesbury including Abbotsdale and Wesbank. Though a large percentage of employment opportunities in construction consists of short-term contracts, like in this case, it contributes directly to counter unemployment and discouragement to seek work. The community views and rates creating jobs as highly significant as unemployment in the municipal area are high.</p> <p>As education and skills levels in Malmesbury are low (50.1% unskilled, 34.6% semi-skilled and 15.2% skilled), the locals employed, may not have the skills required for the installation and development. Hence opportunity to work and to receive training and develop skills should be created to benefit the community in the short term and long term. As skills levels increase and income will likely increase, economic and material wellbeing will improve. Obtaining skills will enable community members to find work at future construction projects. Creating skills development opportunities and developing the skills of locals, is viewed significantly positive given the challenge of unemployment in the municipality and in the province. Moreover, skills are a long-term investment.</p>	
8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.
See 8.2 above.	



8.4.	Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development.
<p>The proposed development is not expected to have any additional significant negative impacts on people's health and well-being. The development will however have an impact on the visual character of the area, and the agricultural potential of the site.</p> <p><b>Visual:</b></p> <p>The powerline traverses the Wesbank and Abbotsdale residential area but cuts primarily through farmland. The area can be described as a production landscape character. The topography is of an undulating nature, but no strong and unique scenic characteristics or prominent elements exist in the landscape. The undulating landscape has a high level of visual absorption, and the total powerline will not be visible from a specific point.</p> <p>According to the Visual Assessment (<b>Appendix G3</b>), the proposed development of the 132KV powerline will have little cumulative impact as it is of smaller scale than the existing high voltage lines. It does not create a visual compounding effect due to the alignment. Space crowding is low and within acceptable limits of change. The landscape holds certain rural and urban qualities. The sense of experience by residents and visitors are thus of a production and partially urban landscape.</p> <p>An assessment of the potential receptors however indicates that the overall visual impact is medium to low and within acceptable levels of change. The assessment did not identify any issues which require further studies or modelling and thus provide sufficient information to make an informed decision. The overall impact is rated as medium to low, and no mitigation measures are deemed necessary.</p> <p><b>Agriculture:</b></p> <p>According to the Agricultural Compliance Statement (<b>Appendix G4</b>), the agricultural sensitivity of the area is high. However, due to the linear nature of the proposed 132 kV overhead powerline development and low impact on existing agricultural activities, it is the specialist's opinion that the development continues provided that good fencing is used during construction and that the footprints inside agricultural land are minimal.</p> <p>The 132 kV overhead powerline structures (pylons) will be located in a 31 m servitude. Eskom's requirement stipulates that no structures or vegetation exceeding 4m in height are allowed within a servitude. The land beneath the overhead powerline (servitude) can still be utilised by the landowners for livestock grazing, crop cultivation, etc., subject to Eskom's servitude restrictions.</p> <p><b>Socio-economic:</b></p> <p>According to the Socio-economic Impact Assessment (<b>Appendix G5</b>), the proposed development has the following positive and negative impacts:</p> <p>Overall, the impacts generated by the proposed powerline are:  Direct and positive Impacts during the construction phase are increased employment opportunities &amp; skills, increased income and increased local sales and GGP. Direct and negative impacts during the construction phase are increased use of social amenities &amp; service, disruption of traffic, increase noise and dust levels and a change in sense of place. Indirect and negative impacts during the construction phase are decrease community stability &amp; safety. Residual and positive impacts during the construction phase is employment of vulnerable groups. Overall, the impacts during the operational phase are positive and direct are increased part-time employment is generated and increased GDP results from the contributions by the wage and maintenance bill and selling electricity and increased access to bulk electricity. Indirect impacts are economic growth and increased business, industry and SMME participation as energy as resources is accessible to conduct business. Residual impacts include employment equity of vulnerable groups improves social standing within the community. Negative and direct impacts include a slightly changed living environment as the total powerline will not be visible from a specific point of view, but be visible form areas of interest, minimal loss of biodiversity and decreased property values for some Abbotsdale residence if not being mitigated.</p> <p>The decommissioning phase will last for 4 - 6 months whilst it is estimated that slightly fewer workers than the number of construction workers, will be employed to demolish the plant. The truckloads of the demolished material to be transported have yet to be determined. The impacts of the decommissioning phase will be similar than that of the construction phase and were not assessed. The proposed powerline has an average life span of 30 years, whereafter the line will be replaced or demolished. The replacement will be a new project and will not be assessed as such. Overall, the impacts during the decommissioning phase that are positive and direct are the creation of temporary job opportunities and jobs with a wage bill for 1 -2 months, and 80% benefitting the locals, providing local people employment opportunities and contributing &lt;1% to the Swartland GDP, the return of the sense of place after decommissioning as the area return to agricultural land. Negative and direct impacts are within limits, though negative, increased use of social amenities and services, decreased road safety and increased noise and dust. Negative and residual impacts are diversification of culture because of the influx of people to find work or to conduct business (entrepreneurs).</p> <p>The cumulative impacts associated with the proposed solar energy facility are job creation and improved income drive economic growth (and growth in SMMEs and self-esteem). Unemployment levels decrease and income and spending power increase; investors establish businesses and industry and entrepreneurs render services, all benefitting locals. The impact is further enhanced by mitigation measures that keep the benefits of the proposed powerline local, for example giving preference to employ locals and use the services of local service providers. Bulk infrastructure/ alternative energy generation contributes to the national goal of access to services.</p>	

## SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

### 1. Details of the alternatives identified and considered

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred property and site alternative.	
<p>The proposed establishment of a 132 kV overhead powerline (De Hoop 132kV overhead powerline) from the Eskom national electricity grid to the existing De Hoop housing development substation, will traverse the farms RE/1113, 18/766, 13/766, RE/8/766, 22/766, 24/766, RE/15/766, and Erven 373, 12081 and 12496, near Malmesbury and Abbotsdale, Swartland Municipality, Western Cape.</p> <p>The proposed 132kV overhead powerline will connect to the existing Dassenberg/Malmesbury 132kV overhead powerline using a loop-in loop-out configuration structure. The proposed 132kV overhead powerline will transmit electricity from this connection point situated on the remainder of the Farm No. 1113 (RE/1113) and Erf no. 373 to the De Hoop housing development substation located on the remainder of Portion 15 of the Farm Olyphants Fontyn no. 766.</p>	
Provide a description of any other property and site alternatives investigated.	
No alternative property and sites were considered by the applicant for the development due to factors like accommodative zonings, properties already owned by the municipality and securing arrangements with landowners. As a result, the selected properties were identified as the most viable option.	
Provide a motivation for the preferred property and site alternative including the outcome of the site selection matrix.	
N/A	
Provide a full description of the process followed to reach the preferred alternative within the site.	
Refer to the previous motivation.	
N/A	
N/A	
List the positive and negative impacts that the property and site alternatives will have on the environment.	
N/A	
1.2.	Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred activity alternative.	
No other activity alternative has been investigated.	
Provide a description of any other activity alternatives investigated.	
N/A	
Provide a motivation for the preferred activity alternative.	
N/A	
Provide a detailed motivation if no activity alternatives exist.	
N/A	
List the positive and negative impacts that the activity alternatives will have on the environment.	
N/A	

1.3. Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts

Provide a description of the preferred design or layout alternative.



Figure 7: Preferred 132 kV overhead powerline route

Provide a description of any other design or layout alternatives investigated.

Other layout alternatives were considered to determine the most suitable route for the powerline. Considerations included minimising disturbances to agricultural practices, avoiding residential areas as much as possible, and ensuring a greater distance from the nearby Malmesbury/Rozenberg landing strip. Refer to Figure 8 to see the layout alternatives and the preferred route layout.

Provide a motivation for the preferred design or layout alternative.

The preferred 132 kV overhead powerline route as depicted by the red polyline in Figure 8 has been selected as the preferred alternative. This route follows existing boundary features, such as farm roads and crop fields, to minimise construction impacts and fragmentation on agricultural practices. It also seeks to minimise its visual impact by avoiding residential areas as much as possible by passing through an open area between the residential periphery of Abbotsdale and a farm residence before crossing the Diep River itself.

Additionally, the route was changed to the preferred option following stakeholder engagement during the pre-application phase. Further consideration was given to the nearby Malmesbury/Rozenberg aerodrome (civil aviation aerodrome) after it was deemed necessary to move the overhead powerline further away from the airfield for aviation safety reasons. The airfield is used by agricultural aircraft (crop dusters) and other smaller aircraft. The preferred route remains within 8 km of the airfield but is now between 1 km and 2 km away at its closest point.

The De Hoop substation needs electricity to support the De Hoop housing development. Due to factors like capacity constraints, the Swartland Municipality decided to obtain electricity directly from Eskom's national electricity grid via the Dassenberg/Malmesbury 132 kV overhead powerline. The existing Dassenberg/Malmesbury 132kV overhead powerline running east-to-west south of the Malmesbury landing strip is just over 1 km away at its closest point. The Dassenberg/Malmesbury 132 kV overhead powerline is approximately 5km south of the De Hoop substation. Refer to Figure 8.

Therefore, while sourcing electricity from the existing powerline offers some flexibility concerning the connection locality, the options for delivering it to the De Hoop Substation are relatively rigid due to the substation's fixed location. Additionally, the route must address several constraints, including minimizing disturbances to the residential communities in the Abbotsdale periphery, adhering to certain zoning areas, and considering airspace limitations to ensure safe aircraft operations.

Furthermore, the Malmesbury landing strip was built in a north-westerly and south-easterly alignment, with aircraft expected to approach and depart in these general directions. Historical Google Earth imagery does not clearly indicate whether the landing strip or the existing Dassenberg/Malmesbury 132 kV overhead powerline was built first. Currently, the existing powerline likely poses some restrictions as an obstacle, leading aircraft to possibly prefer approaching and departing the runway in a north-westerly direction only. If constructed, the proposed De Hoop 132 kV overhead powerline may add another obstacle to the airspace in the assumed predominantly used north-westerly direction for aircraft at the Malmesbury landing strip.

Therefore, earlier alternatives route options, which were less than 1 km from the landing strip at their closest points, were moved during the layout selection process to reduce significant obstacles to aircraft in the assumed predominantly used north-westerly direction. However, the preferred route, deemed as the best fit under the circumstances, may still present some risk to aircraft, though less so than the previous alternatives. Nevertheless, in accordance with Civil Aviation Regulations, powerline structures must be marked appropriately and the obstacle assessment service provider, as designated by South African Civil Aviation Authority (SACAA) needs to evaluate this development and provide comments if necessary.

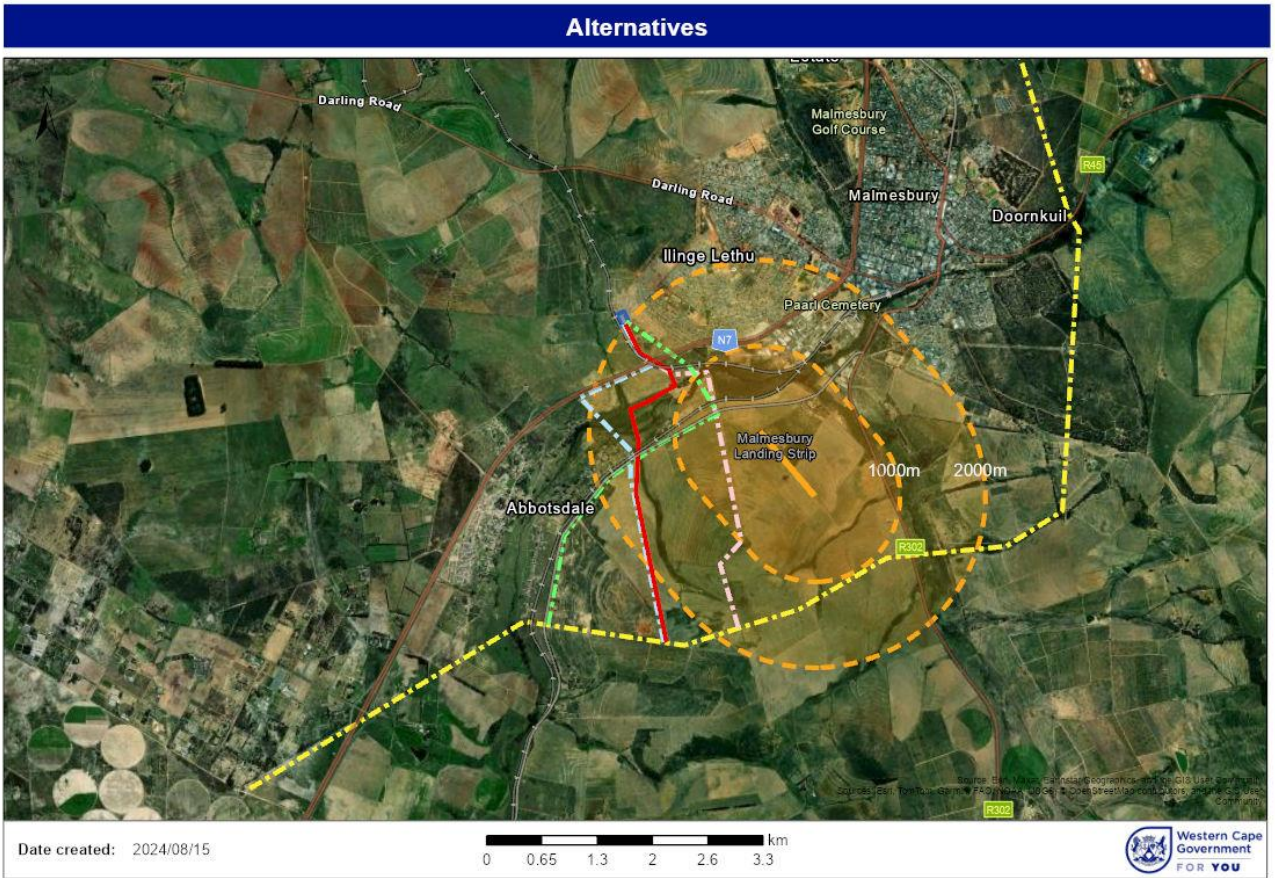
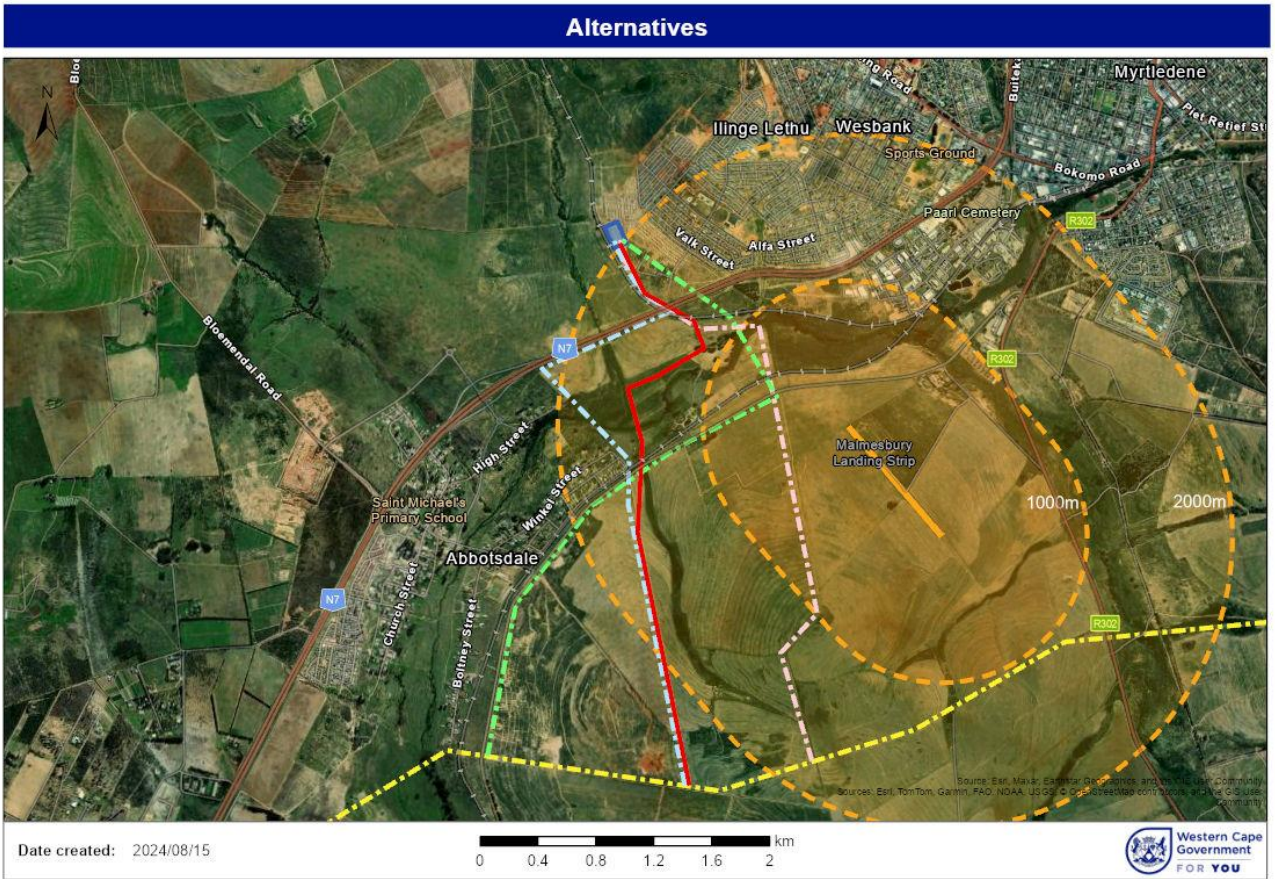


Figure 8: Alternative routes in relation to the Malmesbury landing strip with the red polyline as the preferred route

	Provide a detailed motivation if no design or layout alternatives exist.
	Refer to the motivation as stipulated above.
	List the positive and negative impacts that the design alternatives will have on the environment.
	<p>Positive:</p> <ul style="list-style-type: none"> <li>- The preferred route layout will minimise agricultural disturbances by following boundary features such as farm roads and crop fields, reducing disruption to agricultural practices and preserving land use.</li> <li>- The preferred route layout will avoid residential areas by passing through less visible open spaces, the route layout aims to minimise its visual impact on local receptors.</li> </ul> <p>Negative:</p> <ul style="list-style-type: none"> <li>- The preferred route layout will result in the loss of highly degraded and transformed habitats. Although these areas are already impacted, their removal could still have ecological consequence.</li> <li>- Although the preferred route layout is further from the landing strip than previous alternatives, it still poses some risk to aircraft operations by potentially adding another obstacle in the airspace used predominantly by aircraft of the Malmesbury/Rozenburg landing strip.</li> </ul>
1.4.	Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
	Provide a description of the preferred technology alternative.
	No viable technology alternatives were assessed.
	Provide a description of any other technology alternatives investigated.
	-
	Provide a motivation for the preferred technology alternative.
	-
	Provide a detailed motivation if no alternatives exist.
	-
	List the positive and negative impacts that the technology alternatives will have on the environment.
	-
1.5.	Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
	Provide a description of the preferred operational alternative.
	No viable operational alternatives were assessed.
	Provide a description of any other operational alternatives investigated.
	-
	Provide a motivation for the preferred operational alternative.
	-
	Provide a detailed motivation if no alternatives exist.
	-
	List the positive and negative impacts that the operational alternatives will have on the environment.
	-
1.6.	The option of not implementing the activity (the 'No-Go' Option).
	Provide an explanation as to why the 'No-Go' Option is not preferred.
	Not proceeding with the development of the 132 kV overhead powerline to the De Hoop housing development substation is not preferred for the following reasons: <ol style="list-style-type: none"> <li>1. Infrastructure necessity: Without the 132 kV overhead powerline, the De Hoop substation cannot connect to the Eskom national electricity grid and ultimately cannot supply electricity to the housing development taking place.</li> <li>2. Economic impact: A lack of electricity can impact both residential and commercial aspects of the housing development by affecting property values, business operations, development costs and economic growth for the town of Malmesbury.</li> <li>3. Increased costs and delays: Delaying or stopping the construction of the 132 kV overhead powerline might require additional planning and could possibly result in emergency measures being implemented to address the lack of electricity.</li> </ol>
1.7.	Provide an explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist.
	No other feasible alternatives, besides those described above, have been assessed.

1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.
In conclusion, the preferred route has been selected based on the evaluation of potential impacts and constraints. The preferred route as depicted in Figure 7 and Figure 8 aims to minimise disturbances to agricultural areas, avoid residential areas as far as possible and reduce the risk associated with the proximity to the landing strip. The route is preferred to ensure the successful integration of the powerline with minimal impact on the surrounding areas in order to supply electricity to the De Hoop housing development.	

## 2. “No-Go” areas

Explain what “no-go” area(s) have been identified during identification of the alternatives and provide the co-ordinates of the “no-go” area(s).
No specific “no-go” areas were identified from a terrestrial biodiversity and freshwater perspective. However, the proposed powerline will be located in a close vicinity to the aerodrome, from a western to north-western direction to the aerodrome, and in the flight path of departing and approaching aircraft. The obstacle assessment service provider, as designated by South African Civil Aviation Authority (SACAA) needs to evaluate this development and provide comments if necessary.

## 3. Methodology to determine the significance ratings of the potential environmental impacts and risks associated with the alternatives.

Describe the methodology to be used in determining and ranking the nature, significance, consequences, extent, duration of the potential environmental impacts and risks associated with the proposed activity or development and alternatives, the degree to which the impact or risk can be reversed and the degree to which the impact and risk may cause irreplaceable loss of resources.
Please refer to Appendix J.

## 4. Assessment of each impact and risk identified for each alternative

**Note:** The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. The EAP may decide to include this section as Appendix J to this BAR.

Alternative:	
<b>PLANNING, DESIGN AND DEVELOPMENT PHASE</b>	
<b>Potential impact and risk:</b>	
Nature of impact:	
Extent and duration of impact:	
Consequence of impact or risk:	
Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
<b>OPERATIONAL PHASE</b>	
<b>Potential impact and risk:</b>	
Nature of impact:	
Extent and duration of impact:	
Consequence of impact or risk:	
Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	

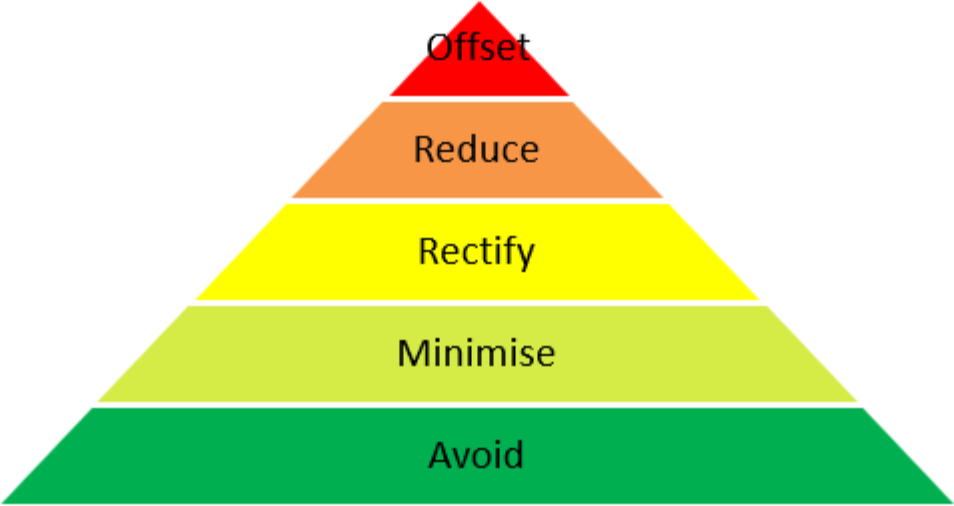
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
<b>DECOMMISSIONING AND CLOSURE PHASE</b>	
<b>Potential impact and risk:</b>	
Nature of impact:	
Extent and duration of impact:	
Consequence of impact or risk:	
Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	



## SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

1.	Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development.
<p><b>Freshwater Resources:</b></p> <p>According to the Freshwater Report (<b>Appendix G1</b>), the Diep River and its drainage lines are already impacted, with many major impacts from agriculture, urban and industrial development and roads, bridges and railway lines and has therefore already lost much of its ecological functioning. A 132 kV overhead powerline its construction and operation, its structures and overhead cables, are essentially low-impact activities. It is not expected that the 132 kV transmission line would measurably add to the already existing impacts. It is therefore concluded that a General Authorisation regarding Section 21 (c) and (i) water uses for the development in terms of the National Water Act 36 of 1998 is the correct level of approval. A Water Use License is not called for.</p> <p>The drainage lines are identified as both a Terrestrial and an Aquatic / River Critical Biodiversity Areas (CBA) on the Western Cape Biodiversity Spatial Plan 2017 (WCBSP) as well as Ecological Support Areas (ESA). The transmission line route has taken the drainage lines and the CBAs into consideration and avoid these areas as far as possible.</p> <p><b>Terrestrial Biodiversity:</b></p> <p>According to the Terrestrial Biodiversity report (<b>Appendix G2</b>), the impacts associated with the proposed establishment of a powerline from the national grid to the De Hoop substation involve the following: Historical composition of the development area included Swartland Shale Renosterveld, Swartland Alluvium Fynbos, and Swartland Granite Renosterveld, each facing distinct conservation challenges. However, no intact remnants of these vegetation types were observed within the development area. Consequently, the habitat conditions range from moderately degraded watercourses with some restoration potential to highly degraded areas with low restoration potential and transformed habitats with no restoration potential.</p> <p>The impact significance for the proposed development, leading to terrestrial habitat loss, is deemed to be low negative. Mitigation measures are proposed to address potential secondary impacts, minimising the overall ecological disturbance. The development directly affects Critical Biodiversity Areas (CBA1: Aquatic, CBA1: Terrestrial, CBA2: Terrestrial) and Ecological Support Areas (ESA1: Aquatic, ESA2: Watercourse) outlined in the Western Cape Biodiversity Spatial Plan. While crucial for biodiversity maintenance, the actual impact is limited to a relatively small portion of the Diep River degraded watercourse, resulting in a defined medium negative significance</p> <p><b>Agriculture:</b></p> <p>According to the Agricultural Compliance Statement (<b>Appendix G4</b>), the agricultural sensitivity of the area is high. However, due to the linear nature of the proposed 132 kV overhead powerline development and low impact on existing agricultural activities, it is the specialist's opinion that the development continues provided that good fencing is used during construction and that the footprints inside agricultural land are minimal.</p> <p>The 132 kV overhead powerline structures (towers) will be located in a 31m servitude. Eskom's requirement stipulates that no structures or vegetation exceeding 4m in height are allowed within a servitude. The land beneath the overhead powerline (servitude) can still be utilised by the landowners for livestock grazing, crop cultivation, etc., subject to Eskom's servitude restrictions.</p> <p><b>Visual:</b></p> <p>According to the Visual Impact Assessment (<b>Appendix G3</b>), the powerline traverses the Wesbank and Abbotsdale residential area but cuts primarily through farmland. The area can be described as a production landscape character. The topography is of an undulating nature, but no strong and unique scenic characteristics or prominent elements exist in the landscape. The undulating landscape has a high level of visual absorption, and the total powerline will not be visible from a specific point.</p> <p>According to the Visual Assessment, the proposed development he addition of the 132KV powerline will have little cumulative impact as it is of smaller scale than the existing high voltage lines. It does not create a visual compounding effect due to the alignment. Space crowding is low and within acceptable limits of change. The landscape holds certain rural and urban qualities. The sense of experience by residents and visitors are thus of a production and partially urban landscape.</p> <p>An assessment of the potential receptors however indicates that the overall visual impact is medium to low and within acceptable levels of change. The assessment did not identify any issues which require further studies or modelling and thus provide sufficient information to make an informed decision. The overall impact is rated as medium to low, and no mitigation measures are deemed necessary.</p> <p><b>Socio-economic:</b></p> <p>According to the Socio-economic Impact Assessment (<b>Appendix G5</b>), the main losses of sense of place and biodiversity are reduced after mitigation and enhanced by the social and economic gains, i.e. reliable electricity, jobs and improved income, the local community of Malmesbury and the inhabitants of Swartland Municipality will gain.</p>	

2.	List the impact management measures that were identified by all Specialist that will be included in the EMPr
<p>Freshwater Resources:</p> <ul style="list-style-type: none"> <li>- No specific mitigation required, however, implement erosion control measures to prevent loose soil and sediments from moving down the drainage line along with stormwater. For example, erosion control blankets, silt fences or mulching exposed soil to reduce erosion. Prevent litter and rubbish entering the drainage line with waste management.</li> </ul> <p>Terrestrial Biodiversity:</p> <ul style="list-style-type: none"> <li>- Vegetation clearing: Clear vegetation only within the proposed development footprint, minimising the impact on the surrounding area.</li> <li>- Erosion control: Implement erosion control measures to prevent soil erosion and habitat degradation. Noise and</li> <li>- Vibration Control: Use construction methods that minimise noise and vibrations to reduce disturbances to wildlife.</li> <li>- Invasive Species Control: Manage and control invasive species that may have been introduced during construction.</li> <li>- Also, utilise existing roads and access points to gain entry the sites.</li> <li>- Construction will directly impact CBA1 and in ESA1. However, this area has experienced significant human-induced impacts, leading to the loss of key biodiversity elements characteristic of Swartland Alluvium Renosterveld. Ensure that the proposed activity does not have any additional impact on the areas associated with CBA1 and ESA1.</li> </ul> <p>Archaeological &amp; Palaeontological Heritage:</p> <ul style="list-style-type: none"> <li>- No further mitigation is recommended concerning these resources, since there is no reason to believe that the proposed development will impact archaeological heritage resources (Heritage Western Cape, 2024). However, should any heritage resources, including evidence of graves and human burials, archaeological material and palaeontological material be discovered during the execution of the activities above, all works must be stopped immediately, and Heritage Western Cape must be notified without delay.</li> </ul> <p>Agricultural:</p> <ul style="list-style-type: none"> <li>- Due to the linear nature and low impact on existing agricultural activities, it is the specialist's opinion that the development continues, provided the following conditions are met: <ol style="list-style-type: none"> <li>1. Good fencing is used during construction.</li> <li>2. Minimal footprint inside agricultural lands.</li> </ol> </li> </ul> <p>Visual:</p> <ul style="list-style-type: none"> <li>- This impact is however temporary and not uncommon during construction of infrastructure. The visual impact during construction is therefore low and temporary no mitigation measures are deemed necessary.</li> </ul> <p>Socio-economic:</p> <ul style="list-style-type: none"> <li>- Ensure that the contractor (implementation agent) employ at least 80% locals of whom 80% were previously disadvantaged across all skills categories (unskilled, semi-skilled and skilled)</li> <li>- If not suitably qualified, make an effort to transfer skills on the job.</li> <li>- Establish a Monitoring Committee for the construction phase in collaboration with representatives of the local community. The Monitoring Committee has to ensure that the proposed powerline is implemented and that any problems that arise and is associated with the demolition of the informal structures and construction phase, is addressed.</li> </ul>	
3.	List the specialist investigations and the impact management measures that will <b>not</b> be implemented and provide an explanation as to why these measures will not be implemented.
No impact measurement measures recommended by the specialists will not be implemented.	
4.	Explain how the proposed development will impact the surrounding communities.
<p>Positive Impacts:</p> <ul style="list-style-type: none"> <li>- <b>Enhanced Electricity Supply:</b> The new powerline will bolster the distribution of bulk electricity, increasing access for more households and contributing significantly to alleviating South Africa's ongoing energy crisis and in particular contributing to the greater Malmesbury area's demand.</li> <li>- <b>Job Creation:</b> The project is expected to generate employment opportunities for local residents, benefiting the community through both direct and indirect job creation. This includes positions in construction, maintenance, and support services.</li> <li>- <b>Economic Stimulus:</b> By facilitating increased housing developments, the powerline will help manage population growth pressures and stimulate broader economic growth in the area, potentially leading to additional infrastructure and business opportunities.</li> </ul> <p>Negative Impacts:</p> <ul style="list-style-type: none"> <li>- <b>Habitat Loss:</b> The development will result in the loss of highly degraded and transformed habitats. Although these areas are already impacted, their removal could still have ecological consequences.</li> <li>- <b>Impact on Watercourses:</b> The project could affect degraded watercourse habitats linked to Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs), potentially disrupting local ecosystems and water flow.</li> <li>- <b>Altered Sense of Place:</b> The installation of powerline infrastructure may impact the visual and aesthetic qualities of the landscape, affecting the community's sense of place and possibly reducing local scenic value.</li> </ul>	

	<p>- <b>Increased Aircraft Collision Risk:</b> The presence of pylons and overhead powerlines poses a risk of collision for aircraft (Malmesbury/Rozenburg landing strip), particularly in low visibility conditions or for low-flying aircraft used in agricultural activities such as crop spraying.</p>
5.	<p>Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.</p>
<p>The proposed development is a 132 kV powerline, and will therefore unlikely directly contribute in any significant way to climate change. However, climate change can significantly impact the proposed powerline development by increasing the likelihood of extreme weather events, such as more frequent and severe flooding of the Diep River. This can affect the stability of the powerline infrastructure, especially where it crosses the Diep River, potentially leading to erosion, damage, or disruption of power supply.</p>	
6.	<p>Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.</p>
<p>No conflicting recommendations between the specialists.</p>	
7.	<p>Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.</p>
<p>All mitigation measures recommended by the Specialists can be implemented, and therefore all have been included in the Environmental Management Programme.</p>	
8.	<p>Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.</p>
<p>The mitigation hierarchy is as follows:</p> <div style="text-align: center;">  </div> <p>The proposed development aims to avoid the following impacts:</p> <ul style="list-style-type: none"> <li>- The CBAs and ESAs associated with the route. These areas will be avoided and will be regarded as "no-go" areas.</li> </ul> <p>The proposed development aims to minimise the following impacts:</p> <ul style="list-style-type: none"> <li>- Footprint inside agricultural lands.</li> <li>- Implement erosion control measures to prevent soil erosion and habitat degradation.</li> <li>- Risks associated with developing a powerline near an airstrip, such as the Malmesbury/Rozenburg landing strip. It's crucial to address the potential for aircraft collisions, particularly under low visibility conditions or for low-flying aircraft involved in activities like crop spraying. To minimize these risks: <ul style="list-style-type: none"> <li>o Implement Markings and Safety Measures: Ensure that the powerline is clearly marked in accordance with the specifications outlined in Document SA-CATS 139 and Civil Aviation regulations. This includes installing aircraft warning lights and other visibility aids on the pylons and powerlines.</li> <li>o Coordinate with Aviation Authorities: Work closely with aviation authorities to monitor and manage airspace around the powerline. This collaboration will help in maintaining safe flight operations and reducing collision risks.</li> </ul> </li> </ul>	

## SECTION J: GENERAL

### 1. Environmental Impact Statement

1.1.	Provide a summary of the key findings of the EIA.
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Freshwater Resources:

According to the Freshwater Report (**Appendix G1**), the Diep River and its drainage lines are already impacted, with many major impacts from agriculture, urban and industrial development and roads, bridges and railway lines and has therefore already lost much of its ecological functioning. A 132 kV overhead powerline its construction and operation, its structures and overhead cables, are essentially low-impact activities. It is not expected that the 132 kV transmission line would measurably add to the already existing impacts. It is therefore concluded that a General Authorisation regarding Section 21 (c) and (i) water uses for the development in terms of the National Water Act 36 of 1998 is the correct level of approval. A Water Use License is not called for.

The drainage lines are identified as both a Terrestrial and an Aquatic / River Critical Biodiversity Areas (CBA) on the Western Cape Biodiversity Spatial Plan 2017 (WCBSP) as well as Ecological Support Areas (ESA). The transmission line route has taken the drainage lines and the CBAs into consideration and avoid these areas as far as possible.

Terrestrial Biodiversity:

According to the Terrestrial Biodiversity report (**Appendix G2**), the impacts associated with the proposed establishment of a powerline from the national grid to the De Hoop substation involve the following: Historical composition of the development area included Swartland Shale Renosterveld, Swartland Alluvium Fynbos, and Swartland Granite Renosterveld, each facing distinct conservation challenges. However, no intact remnants of these vegetation types were observed within the development area. Consequently, the habitat conditions range from moderately degraded watercourses with some restoration potential to highly degraded areas with low restoration potential and transformed habitats with no restoration potential.

The impact significance for the proposed development, leading to terrestrial habitat loss, is deemed to be low negative. Mitigation measures are proposed to address potential secondary impacts, minimising the overall ecological disturbance. The development directly affects Critical Biodiversity Areas (CBA1: Aquatic, CBA1: Terrestrial, CBA2: Terrestrial) and Ecological Support Areas (ESA1: Aquatic, ESA2: Watercourse) outlined in the Western Cape Biodiversity Spatial Plan. While crucial for biodiversity maintenance, the actual impact is limited to a relatively small portion of the Diep River degraded watercourse, resulting in a defined medium negative significance

Agriculture:

According to the Agricultural Compliance Statement (**Appendix G4**), the agricultural sensitivity of the area is high. However, due to the linear nature of the proposed 132 kV overhead powerline development and low impact on existing agricultural activities, it is the specialist's opinion that the development continues provided that good fencing is used during construction and that the footprints inside agricultural land are minimal.

The 132 kV overhead powerline structures (towers) will be located in a 31m servitude. Eskom's requirement stipulates that no structures or vegetation exceeding 4m in height are allowed within a servitude. The land beneath the overhead powerline (servitude) can still be utilised by the landowners for livestock grazing, crop cultivation, etc., subject to Eskom's servitude restrictions.

Visual:

According to the Visual Impact Assess (**Appendix G3**), the powerline traverses the Wesbank and Abbotsdale residential area but cuts primarily through farmland. The area can be described as a production landscape character. The topography is of an undulating nature, but no strong and unique scenic characteristics or prominent elements exist in the landscape. The undulating landscape has a high level of visual absorption, and the total powerline will not be visible from a specific point.

According to the Visual Assessment, the proposed development he addition of the 132KV powerline will have little cumulative impact as it is of smaller scale than the existing high voltage lines. It does not create a visual compounding effect due to the alignment. Space crowding is low and within acceptable limits of change. The landscape holds certain rural and urban qualities. The sense of experience by residents and visitors are thus of a production and partially urban landscape.

An assessment of the potential receptors however indicates that the overall visual impact is medium to low and within acceptable levels of change. The assessment did not identify any issues which require further studies or modelling and thus provide sufficient information to make an informed decision. The overall impact is rated as medium to low, and no mitigation measures are deemed necessary.

Socio-economic:

According to the Socio-economic Impact Assess (**Appendix G5**), the main losses of sense of place and biodiversity are reduced after mitigation and enhanced by the social and economic gains, i.e. reliable electricity, jobs and improved income, the local community of Malmesbury and the inhabitants of Swartland Municipality will gain.

1.2.	Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)
1.3.	Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.
<p>Positive Impacts:</p> <ul style="list-style-type: none"> <li>- <b>Enhanced Electricity Supply:</b> The new powerline will bolster the distribution of bulk electricity, increasing access for more households and contributing significantly to alleviating South Africa's ongoing energy crisis and in particular contributing to the greater Malmesbury area's demand.</li> <li>- <b>Job Creation:</b> The project is expected to generate employment opportunities for local residents, benefiting the community through both direct and indirect job creation. This includes positions in construction, maintenance, and support services.</li> <li>- <b>Economic Stimulus:</b> By facilitating increased housing developments, the powerline will help manage population growth pressures and stimulate broader economic growth in the area, potentially leading to additional infrastructure and business opportunities.</li> </ul> <p>Negative Impacts:</p> <ul style="list-style-type: none"> <li>- <b>Habitat Loss:</b> The development will result in the loss of highly degraded and transformed habitats. Although these areas are already impacted, their removal could still have ecological consequences.</li> <li>- <b>Impact on Watercourses:</b> The project could affect degraded watercourse habitats linked to Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs), potentially disrupting local ecosystems and water flow.</li> <li>- <b>Altered Sense of Place:</b> The installation of powerline infrastructure may impact the visual and aesthetic qualities of the landscape, affecting the community's sense of place and possibly reducing local scenic value.</li> <li>- <b>Increased Aircraft Collision Risk:</b> The presence of pylons and overhead powerlines poses a risk of collision for aircraft (Malmesbury/Rozenburg landing strip), particularly in low visibility conditions or for low-flying aircraft used in agricultural activities such as crop spraying.</li> </ul>	

## 2. Recommendation of the Environmental Assessment Practitioner ("EAP")

2.1.	Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr
<ul style="list-style-type: none"> <li>- Any loss of natural vegetation is limited to only the construction footprint, and must be minimised. The construction site must be clearly demarcated.</li> <li>- Access to "no-go areas" are prevented.</li> <li>- All staff must be provided with environmental training before the commencement of construction and operational phases.</li> <li>- Undertake responsible water usage to prevent unnecessary loss of water.</li> <li>- Undertake responsible waste management.</li> <li>- Undertake proper site rehabilitation after construction activities.</li> <li>- Socio-economic management guidelines provided in Section I to be implemented.</li> </ul>	
2.2.	Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation.
The watercourses, CBAs and ESAs outside of the works area associated with the route must be avoided and the socio-economic management guidelines should be implemented as far as possible.	
2.3.	Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.
<p>Considering all the information, it is not envisaged that this proposed development will have a significant negative impact on the environment. Although the development will involve the loss of some agricultural land, this is considered of low significance and as acceptable.</p> <p>The proposed powerline will have an impact on the sense of place, but the preferred route / layout seeks to minimise its visual impact by avoiding residential areas as much as possible by passing through an open area between the residential periphery of Abbotsdale. Moreover, the undulating landscape has a high level of visual absorption, and the total powerline will not be visible from a specific point. The overall impact is rated as medium to low, and no mitigation measures are deemed necessary. The potential impact on freshwater resources are expected to be medium to low, as the development will not directly impact on the surrounding watercourses, which are considered "no-go" areas.</p> <p>The overall impact on the environment is expected to be Medium-Low (Negative). However, with the mitigation measures proposed above, and their implementation and compliance in the Environmental Management Programme during the construction and operational phases of the development, the expected overall impact is expected to be Low (Negative).</p> <p>The potential socio-economic benefits, including energy security and providing job opportunities during the construction and operational phase, is expected to outweigh the potential negative environmental and socio-economic impacts.</p>	

2.4.	Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.
<p>The following assumptions are made:</p> <ul style="list-style-type: none"> <li>- The information on which the report is based (i.e. project information) is correct.</li> <li>- The construction and management of this proposed development will be in line with the recommendations in this report, which will be enforced by the implementation of a detailed Environmental Management Programme. Much of the long-term success lies in the effective implementation of the measures prescribed in the Environmental Management Programme.</li> </ul> <p>There are no significant gaps of knowledge that have been identified. There are no uncertainties that we are aware of at present.</p>	
2.5.	The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.
<p>The EA is required for a period of five (5) years in which construction must commence. A maximum of 5 years should be provided for construction of all phases to be completed.</p>	

### 3. Water

<p>Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.</p>
<p>The proposed development will not use any municipal potable water.</p>

### 4. Waste

<p>Explain what measures have been taken to reduce, reuse or recycle waste.</p>
<p>The only significant waste that will be produced during construction is some general construction waste. The powerline infrastructure (conductors, steel, concrete, etc.) can be recycled to a degree.</p>

### 5. Energy Efficiency

5.1.	Explain what design measures have been taken to ensure that the development proposal will be energy efficient.
<p>The proposed development is a 132 kV overhead powerline. Efficient conductors will be used as far as possible to reduce powerline losses due to their improved electrical and mechanical properties. Designing towers with materials that offer high strength-to-weight ratios reduces the amount of material needed and consequently lowers energy and transportation costs.</p>	

## SECTION K: DECLARATIONS

### DECLARATION OF THE APPLICANT

**Note:** Duplicate this section where there is more than one Applicant.

I....., ID number .....in my personal capacity or duly authorised thereto hereby declare/affirm that all the information submitted or to be submitted as part of this application form is true and correct, and that:

- I am fully aware of my responsibilities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment ("EIA") Regulations, and any relevant Specific Environmental Management Act and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware of my general duty of care in terms of Section 28 of the NEMA;
- I am aware that it is an offence in terms of Section 24F of the NEMA should I commence with a listed activity prior to obtaining an Environmental Authorisation;
- I appointed the Environmental Assessment Practitioner ("EAP") (if not exempted from this requirement) which:
  - meets all the requirements in terms of Regulation 13 of the NEMA EIA Regulations; or
  - meets all the requirements other than the requirement to be independent in terms of Regulation 13 of the NEMA EIA Regulations, but a review EAP has been appointed who does meet all the requirements of Regulation 13 of the NEMA EIA Regulations;
- I will provide the EAP and any specialist, where applicable, and the Competent Authority with access to all information at my disposal that is relevant to the application;
- I will be responsible for the costs incurred in complying with the NEMA EIA Regulations and other environmental legislation including but not limited to –
  - costs incurred for the appointment of the EAP or any legitimately person contracted by the EAP;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the NEMA EIA Regulations;
  - Legitimate costs in respect of specialist(s) reviews; and
  - the provision of security to ensure compliance with applicable management and mitigation measures;
- I am responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority, hereby indemnify, the government of the Republic, the Competent Authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which I or the EAP is responsible in terms of the NEMA EIA Regulations and any Specific Environmental Management Act.

**Note:** If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

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Signature of the Applicant:

Date:

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Name of company (if applicable):

## DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I Lian Roos, EAP Registration number 2022/4550 as the appointed EAP hereby declare/affirm the correctness of the:

- Information provided in this BAR and any other documents/reports submitted in support of this BAR;
- The inclusion of comments and inputs from stakeholders and I&APs;
- The inclusion of inputs and recommendations from the specialist reports where relevant; and
- Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties, and that:
- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the activity or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another EAP that meets the general requirements set out in Regulation 13 of NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review EAP must be submitted);
- In terms of the remainder of the general requirements for an EAP, am fully aware of and meet all of the requirements and that failure to comply with any the requirements may result in disqualification;
- I have disclosed, to the Applicant, the specialist (if any), the Competent Authority and registered interested and affected parties, all material information that have or may have the potential to influence the decision of the Competent Authority or the objectivity of any report, plan or document prepared or to be prepared as part of this application;
- I have ensured that information containing all relevant facts in respect of the application was distributed or was made available to registered interested and affected parties and that participation will be facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- I have ensured that the comments of all interested and affected parties were considered, recorded, responded to and submitted to the Competent Authority in respect of this application;
- I have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, where relevant;
- I have kept a register of all interested and affected parties that participated in the public participation process; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations;



**27 August 2024**

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Signature of the EAP:

Date:

EnviroAfrica CC

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Name of company (if applicable):



**DECLARATION OF THE REVIEW EAP**

I ....., EAP Registration number ..... as the appointed Review EAP hereby declare/affirm that:

- I have reviewed all the work produced by the EAP;
- I have reviewed the correctness of the information provided as part of this Report;
- I meet all of the general requirements of EAPs as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

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Signature of the EAP:

Date:

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Name of company (if applicable):

## DECLARATION OF THE SPECIALIST

**Note:** Duplicate this section where there is more than one specialist.

I ....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

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Signature of the EAP:

Date:

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Name of company (if applicable):

**DECLARATION OF THE REVIEW SPECIALIST**

I ....., as the appointed Review Specialist hereby declare/affirm that:

- I have reviewed all the work produced by the Specialist(s):
- I have reviewed the correctness of the specialist information provided as part of this Report;
- I meet all of the general requirements of specialists as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the review EAP (if applicable), the Specialist(s), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

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Signature of the EAP:

Date:

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Name of company (if applicable):