



**forestry, fisheries
& the environment**

**Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA**

Private Bag X 447· PRETORIA ·0001· Environment House ·473 Steve Biko Road, Arcadia· PRETORIA

DFFE Reference: 14/12/16/3/3/1/2419

Enquiries: Mr Herman Alberts

Telephone: (012) 399 9371 **E-mail:** HAlberts@dfpe.gov.za

Mr Zuki Makalima
South African National Research Network (SANReN)
CSIR Next Generation Enterprises and Institutions (NGEI) Cluster
Building 43
PO Box 395
PRETORIA
0001

Telephone Number: (012) 841 3028
Email Address: zuki@sanren.ac.za

PER EMAIL

Dear Mr Makalima

ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: FOR THE SQUARE KILOMETRE ARRAY (SKA) FIBRE OPTIC CABLE BETWEEN BEAUFORT WEST AND CARNARVON IN THE WESTERN AND NORTHERN CAPE PROVINCES

With reference to the above application, please be advised that the Department has decided to grant authorisation. The Environmental Authorisation (EA) and reasons for the decision are attached herewith.

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing and within fourteen (14) days of the date of the decision, of the Department's decision as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, Act No. 3 of 2000, you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, Act No. 4 of 2013 which stipulates that the Department should conduct itself in a responsible manner when collecting, processing, storing and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuses or compromises your personal information in any way.

Your attention is drawn to Chapter 2 of the National Environmental Management Act, Act No. 107 of 1998 National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribe the appeal procedure to be followed. Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 (twenty) days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

The Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: appeals@dffe.gov.za;

By hand: Environment House
473 Steve Biko
Arcadia
Pretoria
0083; or

By post: Private Bag X447
Pretoria
0001

Please note that in terms of Section 43(7) of the National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.environment.gov.za/documents/forms#legal_authorisations or request a copy of the documents at appeals@environment.gov.za.

Yours faithfully


Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment
Date: 25/01/2022

cc:	Luanita Snyman-van der Walt	Council for Scientific and Industrial Research	E-mail: Lvdwalt1@csir.co.za
	Edward Perry	SLR Consulting South Africa	E-mail: EPerry@slrconsulting.co.za
	Nanine van Oimer	NC: DENC	E-mail: nvanoimer@ncpg.gov.za
	ZP Mjandana	Kareeberg Local Municipality	E-mail: zmjandana@ncpg.gov.za
	Gavin Benjamin	WC: DEA&DP	E-mail: Gavin.Benjamin@westerncape.gov.za
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forestry, fisheries
& the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of Regulation 20(1)(a) of the Environmental Impact Assessment Regulations, 2014,
as amended

The Square Kilometre Array (SKA) Fibre Optic Cable between Beaufort West and Carnarvon in the
Western and Northern Cape Provinces

Central Karoo District Municipality & Pixley ka Seme District Municipality

Authorisation register number:	14/12/16/3/3/1/2419
Last amended:	First issue
Holder of authorisation:	The South African National Research Network
Location of activity:	Road reserves (R381, R63 and others) Erf 3545 of the Beaufort West Region Erf 1707 of the Beaufort West Region Portion 9 of the Farm Alwin's Gate 186 Portion 1 of the Farm Matjes Valie 103 Remainder of the Farm Waterval 97 Remainder of the Farm Middle Kraal 98 Ubuntu Local Municipality Kareeberg Local Municipality Beaufort West Local Municipality Pixley ka Seme District Municipality Central Karoo District Municipality Northern Cape Province Western Cape Province

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

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Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this environmental authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998, as amended and the EIA Regulations, 2014, as amended.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014, as amended, the Department hereby authorises –

THE SOUTH AFRICAN NATIONAL RESEARCH NETWORK

(hereafter referred to as the **holder of the authorisation**)

with the following contact details –

Mr Zuki Makalima
SANReN
CSIR Next Generation Enterprises and Institutions (NGEI) Cluster
Building 43
PO Box 395
PRETORIA
0001

Telephone Number: (012) 841 3028
 Cell Phone Number: (078) 583 0747
 Fax Number: (012) 841 4223
 Email Address: zuki@sanren.ac.za

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1 and Listing Notice 3 of the EIA Regulations, 2014 as amended:

Activity number	Activity description
<p><u>Listing Notice 1, Item 19:</u></p> <p><i>"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"</i></p>	<p>The proposed approach to avoid sensitive areas, particularly watercourses, are via Horizontal Directional Drilling (HDD) 2m below the riverbed starting 32m from river banks. In some areas, dry watercourses (as delineated by the aquatic ecology specialist) may be trenched and backfilled, in accordance with measures identified and included in the EMPr.</p>
<p><u>Listing Notice 3, Item 12</u></p> <p><i>"The clearance of an area of 300 square metres or more of indigenous vegetation:</i></p> <p><i>(a) Northern Cape,</i></p> <p><i>(ii) within critical biodiversity areas identified in bioregional plans.</i></p> <p><i>(i) Western Cape,</i></p> <p><i>(ii) within critical biodiversity areas identified in bioregional plans.</i></p> <p><i>(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.</i></p> <p><i>(v) On land designated for protection or conservation purposes in an Environmental Management</i></p>	<p>CBAs: Although the development is predominantly proposed within the road reserves of the R381 and R63, the total cumulative approximate construction footprint of the proposed fibre optic cable, within Critical Biodiversity Areas (CBAs) in the Northern Cape (37 803m²) and Western Cape (19 814m²) Provinces, exceeds the 300m² clearance threshold. Land zoned as conservation or designated for conservation purposes: The Beaufort West SDF (2013, adopted 2017 for 2017-22) (BMLM, 2013 2018) recognises the Karoo National Park, as well as the Sakriver, Brakriver, Kromriver and Wagenaarskraal conservancies between Beaufort West and Loxton (in the Northern Cape and</p>

<p>Framework adopted in the prescribed manner, or a Spatial Development Framework"</p>	<p>Western Cape provinces). Within the Karoo National Park, the proposed fibre optic cable will be installed overhead on timber and concrete poles for a total distance of approximately 4.7km. The 'clearance' of vegetation for the holes within which the poles are planted, will be approximately 80m², cumulatively. Within the Sakriver, Brakriver, Kromriver and Wagenaarskraal conservancies the fibre optic cable will be installed in the road reserve of the R381 road for a distance of approximately 62km, which would result in cumulative clearance of vegetation in the road reserve of 18 600m².</p>
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as described in the Basic Assessment Report (BAR) dated November 2021 at:

Coordinates

	Longitude	Latitude
(Start) Beaufort West	32°21'02.5"S	22°34'35.3"E
(End) SKA internet PoP site	30°58'12.0"S	22°08'28.7"E

A detailed list of co-ordinates are outlined in Appendix 7 of the BAR dated November 2021.

21 Digit SG Code (private properties)

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C	0	0	9	0	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	1
C	0	0	9	0	0	0	1	0	0	0	0	0	0	9	7	0	0	0	0	0
C	0	0	9	0	0	0	1	0	0	0	0	0	0	9	8	0	0	0	0	0

- for the Square Kilometre Array (SKA) Fibre Optic Cable between Beaufort West and Carnarvon in the Western and Northern Cape Provinces, hereafter referred to as "the property".

Infrastructure associated with the project:

- Underground sections (total of approximately 162km): within a 30m wide corridor around the centre line of the roads (i.e., the road reserve) where the cabling will be installed underground.
- Overhead sections, outside of the road reserve (total of approximately 21km): a 30m wide corridor around the engineering Low Level Design (LLD) route.

Conditions of this Environmental Authorisation

Scope of authorisation

1. The preferred alternative route for the Square Kilometre Array (SKA) Fibre Optic Cable between Beaufort West and Carnarvon in the Western Cape Province and the Northern Cape Province, as described above is hereby approved.
2. Authorisation of the activity is subject to the conditions contained in this environmental authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.
3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this environmental authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further environmental authorisation in terms of the regulations.
6. The holder of an environmental authorisation must apply for an amendment of the environmental authorisation with the competent authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
7. This activity must commence within a period of ten (10) years from the date of issue of this environmental authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.

8. Construction must be completed within five (5) years of the commencement of the activity on site.
9. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.

Notification of authorisation and right to appeal

10. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this Environmental Authorisation, of the decision to authorise the activity.
11. The notification referred to must –
 - 11.1. specify the date on which the authorisation was issued;
 - 11.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 11.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 11.4. give the reasons of the Competent Authority for the decision.

Commencement of the activity

12. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014, and no appeal has been lodged against the decision. In terms of Section 43(7), an appeal under Section 43 of the National Environmental Management Act, Act No. 107 of 1998, as amended will suspend the Environmental Authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

13. The Environmental Management Programme (EMPr) submitted as part of the BAR dated November 2021 is approved and must be implemented and adhered to.
14. The EMPr must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.

15. Changes to the approved EMPr must be submitted in accordance to the EIA Regulations applicable at the time.
16. The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the BAR be discovered.

Frequency and process of updating the EMPr

17. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 28 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
18. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
19. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of GN R. 982. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.
20. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of GN R.982 as amended. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
21. The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. The amendment process is prescribed in Regulation 37 of GN R.982, as amended. The holder of the authorisation must request comments on the proposed amendments to the impact management outcomes of the EMPr or amendments to the closure objectives of the closure plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.

Monitoring

22. The holder of the authorisation must appoint an experienced Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the

- mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
23. The ECO must be appointed before commencement of any authorised activities.
 24. Once appointed, the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring of the Department at Directorcompliance@environment.gov.za.
 25. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
 26. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

27. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the Director: Compliance Monitoring of the Department at Directorcompliance@environment.gov.za.
28. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the Director: Compliance Monitoring of the Department at Directorcompliance@environment.gov.za.
29. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982, as amended.
30. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
31. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014, as amended, and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.
32. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

33. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

34. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

Site closure and decommissioning

35. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.

Specific conditions

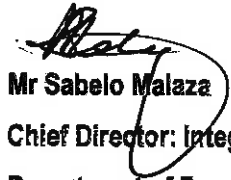
36. An independent, qualified terrestrial specialist and aquatic ecological specialist must be appointed to advise on the micro-siting of the cabling in identified sensitive areas during the construction phase.
37. The footprint of the development must be limited to the areas required for actual construction works and operational activities.
38. Areas outside of the footprint, including sensitive areas and buffer areas, must be clearly demarcated (using fencing and appropriate signage) before construction commences and must be regarded as "no-go" areas.
39. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken according to the EMPr.
40. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
41. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Where solid waste is

- disposed of, such disposal shall only occur at a landfill licensed in terms of section 20(b) of the National Environment Management Waste Act, 2008 (Act 59 of 2008).
42. The holder of this authorisation must take ensure that no temporary site camps will be allowed outside the footprint of the development area as the establishment of such structures might trigger a listed activity as defined in the Environmental Impact Assessment Regulations.
 43. Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.
 44. Should any archaeological sites, artefacts, paleontological fossils or graves be exposed during construction work, work in the immediate vicinity of the find must be stopped, the South African Heritage Resources Agency (SAHRA) must be informed and the services of an accredited heritage professional obtained for an assessment of the heritage resources.
 45. All declared aliens must be identified and managed in accordance with the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). There should be an alien species monitoring and eradication program to prevent encroachment of these problem plants for the duration of the operation.

General

46. The recommendations of the EAP in the BAR dated November 2021 and the specialist studies attached must be adhered to. In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.
47. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
 - 47.1. at the site of the authorised activity;
 - 47.2. to anyone on request; and
 - 47.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
48. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of environmental authorisation: 25/01/2022



Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment

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Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The listed activities as applied for in the application form received on 25 August 2021.
- b) The information contained in the BAR dated November 2021.
- c) The comments received from interested and affected parties as included in the BAR dated November 2021.
- d) Mitigation measures as proposed in the BAR and the EMPr dated November 2021.
- e) The information contained in the specialist studies contained within the appendices of the BAR dated November 2021.

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.
- b) The BAR dated November 2021 identified all legislations and guidelines that have been considered in the preparation of the BAR.
- c) The methodology used in assessing the potential impacts identified in the BAR dated November 2021 and the specialist studies have been adequately indicated.
- d) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014, as amended for public involvement.

3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the BAR dated November 2021 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The information contained in the BAR dated November 2021 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.

- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the BAR dated November 2021 and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, Act No. 107 of 1998, as amended, and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.