



environmental affairs

Department
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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

DEA Reference: 14/12/16/3/3/1/2092

Enquiries: Azrah Essop

Telephone: 012-395-8529 **E-mail:** AEssop@environment.gov.za

Ms Stephné Wilmot
South African National Roads Agency SOC Limited (SANRAL)
P O Box 100410
PIETERMARITZBURG
3201

Tel: 033 392 8100
Email: wilmots@nra.co.za

PER E-MAIL / MAIL

Dear Ms Wilmot

ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: GN R983/985, AS AMENDED: PROPOSED UPGRADING OF NATIONAL ROUTE 1 SECTION 16 (N1-16) BETWEEN WINBURG STATION (KM 89.8) AND VENTERSBURG (KM 133.53) WITHIN THE FREE STATE PROVINCE

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 14 (fourteen) days of the date of the EA, of the Department's 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 abuse or compromise your personal information in any way.

Your attention is drawn to Chapter 2 of 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.

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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 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@environment.gov.za:

By hand: Environment House
473 Steve Biko Road
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 Environmental Affairs

Date: 08/06/2020

CC:	Tom Hugo	Enviromatrix (Pty) Ltd	Email: Tom@emtrix.co.za
	Grace Mkhosana	Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs	Email: mkhosanag@destea.fs.gov.za
	Mr David Nthau	Masilonyana Local Municipality	Email: info@masilonyana.co.za
	Mothusi Frank Lepheana	Matjhabeng Local Municipality	Email: info@matjhabeng.co.za
	Tshepiso Ramakarane	Setsofo Local Municipality	Email: tshepiso@setsofo.co.za



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014, as amended

Proposed upgrade of National Route 1 Section 16 (N1-16) between Winburg Station (km 89.8) and Ventersburg (km 133.53), Masilonyana; Matjhabeng and Setsoto Local Municipalities within the Free State Province.

Lejweleputswa and Thabo Mofutsayana District Municipalities

Authorisation register number:	<i>14/12/16/3/3/1/2092</i>
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>South African National Roads Agency SOC Limited (SANRAL)</i>
Location of activity:	<i>Free State Province, within the Masilonyana, Matjhabeng and Setsoto Local Municipalities</i>

This Environmental 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.

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, Act No. 107 of 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, Act No. 107 of 1998, as amended and the Environmental Impact Assessment Regulations, 2014, as amended, the Department hereby authorises –

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED (SANRAL)

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

with the following contact details –

Ms Stephné Wilmot

South African National Roads Agency SOC Limited (SANRAL)

P O Box 100410

PIETERMARITZBURG

3201

Tel: (033) 392 8100

E-mail: wilmots@nra.co.za

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1 and Listing Notice 3, as amended (GN R983 and R985, as amended):

Listed activities	Activity/Project description
<u>Listing Notice 1</u>	
<p><u>GN R983 Item 12(ii)(a) :</u> <i>The development of—</i> (ii) <i>infrastructure or structures with a physical footprint of 100 square metres or more;</i> <i>where such development occurs—</i> (a) <i>within a watercourse;</i></p>	<p>The construction of the road would require the development of infrastructure with a combined footprint greater than 100m² within watercourses along the route, including construction, upgrading and reconstruction of four bridges over the Erasmusspruit River (± 2570m²), Koolspruit River (± 3930m²), Sand River (± 3585m²) and Venterspruit (± 475m²) respectively as well as major culverts of a 100m² or more.</p>
<p><u>GN R983 Item 19:</u> <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>Some infilling of more than 10m³ of soil and/or concrete would be required for construction, upgrading and reconstruction of four bridges over the Erasmusspruit, Koolspruit, Sand River and Venterspruit as well as 17 major culverts. The existing river and/or stream widths will be retained or the bridges will be wider than the existing bridge/stream.</p>
<p><u>GN R983 Item 24(ii):</u> <i>"The development of a road—</i> (ii) <i>with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres"</i></p>	<p>An Access Management Plan will be implemented which reduces the number of locations with direct access to the N1-16. This entails the construction of approximately 46km of new access roads with a reserve of +- 16m parallel to the N1 road. This will be a new reserve and gravel road on expropriated land of approximately ±736km².</p>

Listed activities	Activity/Project description
<p><u>GN R983 Item 31:</u> <i>"The decommissioning of existing facilities, structures or infrastructure for</i> <i>(i) any development and related operation activity or activities listed in this Notice or Listing 3 of 2014</i> <i>(v) any activity regardless the time the activity was commenced with, where such activity</i> <i>(b) is still in operation</i></p>	<p>The existing bridges over the Sand River ($\pm 3585\text{m}^2$) and Erasmusspruit ($\pm 2570\text{m}^2$) will be demolished and new bridges will be constructed for the existing road.</p>
<p><u>GN R983 Item 48 (i)(a)(c):</u> <i>The expansion of -</i> <i>(i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; where such expansion occurs -</i> <i>(a) within a watercourse;</i> <i>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse."</i></p>	<p>The expansion of 17 major culverts and ± 160 smaller culverts and storm water pipes from the existing road to the new carriageway.</p>
<p><u>GN R983 Item 56 (i):</u> <i>The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre</i> <i>(i) where the existing reserve is wider than 13,5 meters</i></p>	<p>The construction of a new carriageway, increasing the road reserve width from 32m to 80m for approximately 44km. Existing disturbed road reserve of $\pm 1408 \text{ km}^2$ and new expropriated land for the widening of the road reserve to 80m of $\pm 2112\text{km}^2$. The existing N1 road between Winburg Station and Ventersburg will be strengthened.</p>
<u>Listing Notice 3</u>	
<p><u>GN R985 Item 12(b)(iv):</u> <i>"The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance</i></p>	<p>Construction, upgrading and reconstruction of four bridges over the Erasmusspruit River ($\pm 2570\text{m}^2$), Koolspruit River ($\pm 3930\text{m}^2$), Sand River ($\pm 3585\text{m}^2$) and</p>

Listed activities	Activity/Project description
<p><i>purposes undertaken in accordance with a maintenance management plan.</i></p> <p><i>(b) Free State</i></p> <p><i>(iv) Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland."</i></p>	<p>Venterspruit ($\pm 475\text{m}^2$) respectively as well as major culverts of a 100m^2 or more.</p>
<p><u>GN R985 Item 14(ii)(a)(c)(b)(i)(hh):</u></p> <p><i>"The development of (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs-</i></p> <p><i>(a) within a watercourse;</i></p> <p><i>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse,</i></p> <p><i>(b) Free State</i></p> <p><i>(i) Outside urban area;</i></p> <p><i>(hh) areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve"</i></p>	<p>Construction of the bridge over the Sand River and 5 major culverts will trigger this activity as it is within the 5km buffer zone of the proclaimed LM Safaris Nature Reserve of $\pm 348\text{Ha}$.</p> <p>The existing carriageway reserve boundary is ± 40 meter away from the Nature Reserve fence and will therefore not encroach on the Nature Reserve itself as the construction will be south east on the other side of the existing road reserve. No construction will take place within the Nature Reserve.</p>
<p><u>GN R985 Item 18(b)(i)(gg)(hh):</u></p> <p><i>The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre. (b) Free State</i></p> <p><i>(i) Outside urban area;</i></p> <p><i>(gg) areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve and</i></p> <p><i>(hh) areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland"</i></p>	<p>The construction of a new carriageway which will increase the existing road reserve width from 32m to 80m for approximately 44 km from Winburg Station to Ventersburg, the existing road pass within the 5Km buffer zone of the LM Safaris Nature Reserve – no construction activities will take place within the reserve. The existing road and proposed dual carriageway cross the Erasmusspruit, Koolspruit, Sand River and Venterspruit with 6 new bridges to be constructed</p>

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Listed activities	Activity/Project description
	retaining two of the existing structures as well as the 17 major culverts that will be extended to the new road.

as described in the Basic Assessment Report (BAR) dated December 2019 within the Masilonyana Local Municipality; Matjhabeng Local Municipality and Setsoto Local Municipality with the location indicated in the locality plan, attached as Annexure 2 of this authorisation and the property details are provided in Annexure 3.

The GPS coordinates of the road and infrastructure are as follows:

	Latitude (S)	Longitude (E)
Start Point – Winburg Station	28°27'50.54"S	27° 1'57.62"E
Middle of route	28°16'10.77"S	27° 4'13.08"E
End Point - Ventersburg	28°5'22.83"S	27° 8'24.36"E

The coordinates of the bridge and culvert structures are provided in Annexure 4.

- for the proposed upgrade of National Route 1 Section 16 (N1-16) between Winburg Station (km 89.8) and Ventersburg (km 133.53) within the Free State Province, hereafter referred to as "the property".

The project limits are:

- a) Start KM 89.2 (new carriageway as well as km 89.8 (rehabilitation of existing carriageway) and End KM 133.0 in Ventersburg (south of the overpass bridges)
- b) Total length of road under consideration is 43.8km
- c) Access management plan to reduce number of locations with direct access to the N1-16. As such 46km of access/service roads will be constructed to the proposed N1-16 and other secondary roads.

The infrastructure associated with this development includes:

- a) rehabilitation of the existing road N1-16 carriageway;
- b) construction of a new carriageway;
- c) upgrading of the vertical alignment (over approximately 14% of the road section);

- d) cross-section configuration (per direction) comprising 2 x 3.7m wide lanes, 3.0m wide outside shoulder (of which 2.5m is surfaced), 1.6m wide inside shoulder (of which 1.0m is surfaced) and a 7.4m wide median;
- e) installation of new median drainage between the existing carriageway and the new carriageway;
- f) replacement of the majority of the existing minor culverts;
- g) demolition and replacement of existing major culverts (6 locations);
- h) widening and/or lengthening of existing major culverts (11 locations);
- i) construction of 4 new road-over-river bridges adjacent to the existing road-over-river bridges;
- j) retaining two of the four existing bridges and demolishing and raising the other two remaining bridges;
- k) widening of existing cuttings (especially the cutting along the "pass" section between km 113.800 and km 114.100);
- l) implementation of an access management plan where the number of locations with direct access to the N1-16 is reduced; and
- m) land expropriation required for the following amongst other things:
 - i. new carriageway of road N1-16;
 - ii. new interchange (intersection of road R73 with the N1-16);
 - iii. new major at-grade intersections;
 - iv. new access/frontage roads; and
 - v. new or expanded borrow pits and quarries.

Road design will include aspects of:

- n) Earth shaping;
- o) Cut and fill and bank stabilisation;
- p) Bridge and culvert structure extensions, (Roads will be constructed to ensure effective drainage. Where roads cross streams, suitable drainage structures will be constructed. Storm water drainage will be accommodated within the road reserve);
- q) Re-design on link roads; and
- r) Temporary gravel road access to Borrow Pits.

Conditions of this Environmental Authorisation

Scope of authorisation

1. The preferred alignment of the upgrade (dual carriageway alignment) is approved as per the geographic coordinates cited in the table above and in Annexure 4.
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 must only be carried out at the properties as described above and in Annexure 4.
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. Commencement with one activity listed in terms of this Environmental Authorisation constitutes commencement of all authorised activities.

Notification of authorisation and right to appeal

9. 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.
10. The notification referred to must –
 - 10.1. specify the date on which the authorisation was issued;
 - 10.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 10.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 10.4. give the reasons of the Competent Authority for the decision.

Commencement of the activity

11. The authorised activity must 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

12. The Environmental Management Programme (EMPr) submitted as part of the Application for EA is hereby approved. This EMPr must be implemented and strictly adhered to.

Frequency and process of updating the EMPr

13. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 23 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.

14. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
15. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of GN R982 of 04 December 2014, as amended. 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.
16. 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 R982 of 04 December 2014, 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.
17. The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. In assessing whether to grant such approval or not, the Department will consider the processes and requirements prescribed in Regulation 37 of GN R982 of 04 December 2014, as amended.

Monitoring

18. The holder of the authorisation must appoint an 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.
 - 18.1. The ECO must be appointed before commencement of any authorised activities.
 - 18.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
 - 18.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
 - 18.4. 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

19. 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.
20. 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.
21. 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 R982 of 04 December 2014, as amended.
22. The holder of the authorisation must, in addition, submit an 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.
23. 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.
24. 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

25. 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

26. 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

27. 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

28. A pre-construction walk-through of the project site must be done by a suitably qualified and experienced Ecological Specialist in order to locate individuals of protected species which would have to be removed and relocated. This walk-through must also make note and document animal burrows present within the project site. Plant species of conservation concern (e.g. Aloes) must also be located and relocated to a suitable and similar habitat where these plants can grow without any disturbance. Species which are suitable for transplant must be translocated during a search and rescue operation. The succulents (*Aloe davyana*, *Avonia ustulata*, *Euphorbia clavaroides*) as well as the bulbous species (*Haemanthus humilis* and *Crinum bulbispermum*) will have to be translocated before construction commences.
29. Permits must be obtained from the Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEA) prior to removing the protected species individuals.
30. Animal burrows must be monitored by the ECO prior to construction for activity/presence of animal species. If detected, such animals must be removed and relocated by a qualified professional/contractor.
31. Trenches must not be left open for extended periods of time. They must contain soil ramps allowing fauna to escape the trench should they fall in.
32. Maintenance done on construction vehicles must be done in such a manner to prevent spillage of fuel and oils;

33. Surrounding residents/farmers must be notified in advance of construction and blasting schedule;
 34. Restrict disturbance to riparian areas to as close as practically possible to the proposed bridge and culvert expansion footprint. Areas outside of the footprint and reasonable construction access to be marked as no-go areas;
 35. Implement erosion control measures where applicable and re-enforce river banks with gabions where applicable to prevent instability of the river banks.
 36. As far as possible, all rehabilitation activities must occur in the low flow season, during the drier winter months.
 37. Rehabilitate directly after construction is completed and only indigenous vegetation must be utilised during rehabilitation. This must include the removal of all alien vegetation in the riparian zone which must be reseeded with indigenous grasses as specified by a suitably qualified specialist (ecologist).
 38. After the completion of construction, any possible soil compaction and spillage of substances within the construction camp must be rehabilitated.
 39. Drainage lines and riparian systems and their relevant buffer zones must be adhered to.
 40. Rehabilitation must ensure that the wetland structure and function are reinstated in such a way as to ensure the ongoing functionality of the larger wetland systems at construction levels.
 41. Prevent the direct discharge of potentially contaminated runoff into the watercourses and wetland areas.
 42. The construction camp and necessary ablution facilities meant for construction workers must be beyond the 32m buffer of riparian systems and drainage lines.
 43. No stockpiling may take place within a watercourse or the 32m buffer.
 44. All stockpiles must be protected from erosion, stored on flat areas where run-off will be minimised, and be surrounded by bunds.
 45. Erosion and sedimentation into channels must be minimised through the effective stabilisation (Gabions and Reno mattresses) and the re-vegetation of any disturbed stream banks.
 46. An alien plant removal program be initialised within the study area in order to help reinstate more natural hydrological and ecological functions to within the project site;
 47. In the event that indicator(s) of heritage resources are identified, the following actions should be taken immediately:
 - 47.1. All construction within a radius of at least 20m of the indicator should cease. This distance must be increased at the discretion of supervisory staff if heavy machinery or explosives could cause further disturbance to the suspected heritage resource.
 - 47.2. This area must be marked using clearly visible means, such as barrier tape, and all personnel should be informed that it is a no-go area.
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- 47.3. A guard must be appointed to enforce this no-go area if there is any possibility that it could be violated, whether intentionally or inadvertently, by construction staff or members of the public.
- 47.4. No measures must be taken to cover up the suspected heritage resource with soil, or to collect any remains such as bone or stone.
48. A heritage specialist must be appointed to monitor the project and complete a pre-construction walk through.
49. The South African Police Services must be notified by a SAHRA/FSPHRA staff member or an independent heritage practitioner if human remains are identified.

General

50. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMP, must be made available for inspection and copying-
- 50.1. at the site of the authorised activity;
- 50.2. to anyone on request; and
- 50.3. where the holder of the Environmental Authorisation has a website, on such publicly accessible website.
51. 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: 08/06/2020


Mr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs

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 information contained in the BAR dated December 2019;
- b) The comments received from interested and affected parties as included in the BAR dated January 2020;
- c) Mitigation measures as proposed in the BAR dated December 2019 and the EMPr;
- d) The information contained in the specialist studies within Appendix E and F of the BAR; and
- e) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of the National Environmental Management Act, Act No.107 of 1998, as amended.

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 proposed road upgrade and additional lanes is necessary to increase traffic capacity and improve road user safety. The proposed road design of a dual carriageway with the selected interchanges and access management plan of gravel roads running in parallel to the N1. Bridge and Culvert design is per the recommendations made in the Drainage Reports.
- b) The findings of all the specialist studies conducted and their recommended mitigation measures.
- c) The BAR dated December 2019 identified all legislation and guidelines that have been considered in the preparation of the BAR dated December 2019.
- d) The methodology used in assessing the potential impacts identified in the BAR dated January 2020 and the specialist studies have been adequately indicated.
- e) 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

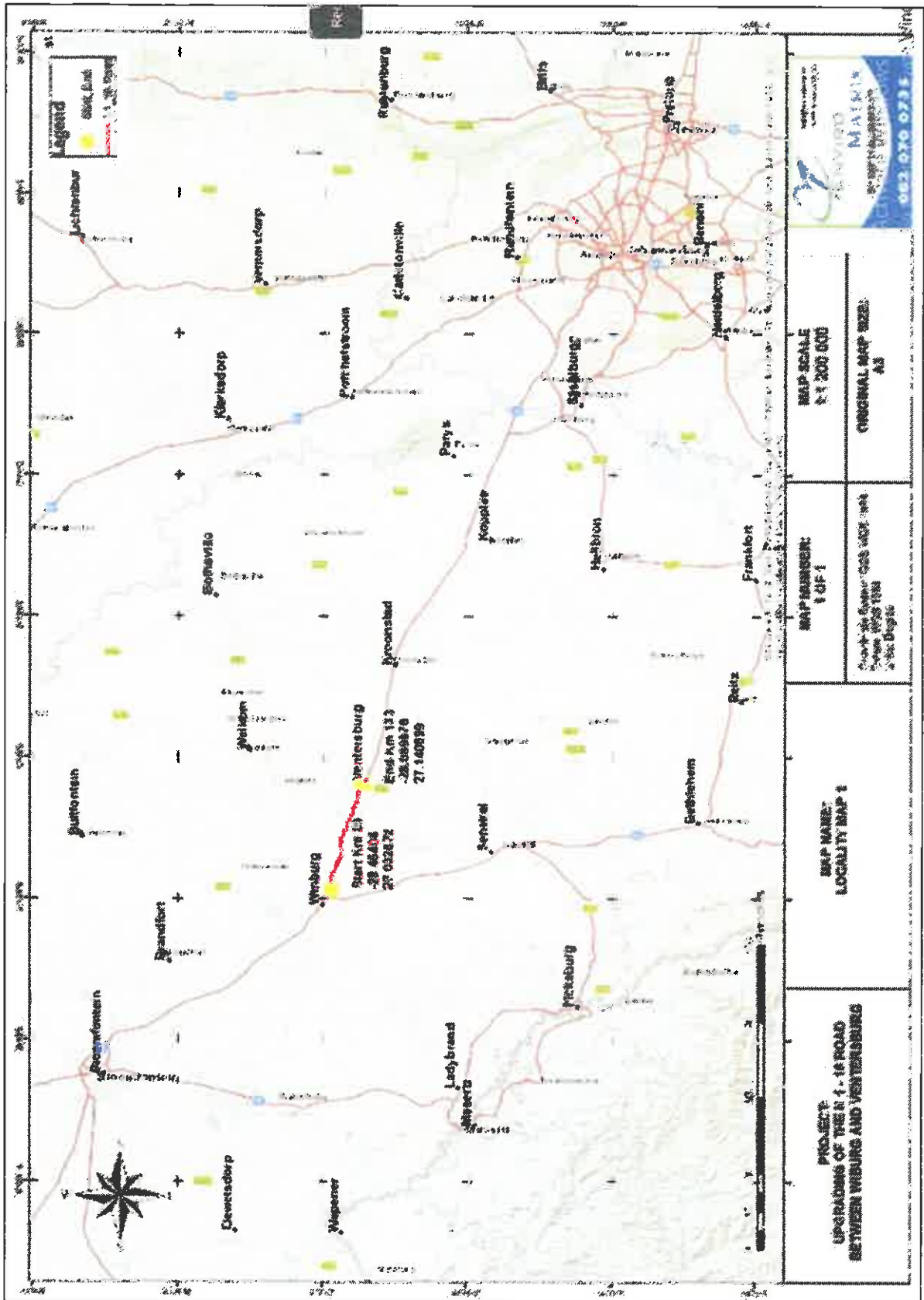
After consideration of the information and factors listed above, the Department made the following findings -

- a) SANRAL needed to consider an upgrade of the road in order to satisfy traffic growth projections for at least the next 20 years. The road was constructed in 1970 and then again upgraded in 1996. Due to the increase in traffic, especially in heavy vehicles, the road is due for another upgrade to accommodate the increase in traffic and to ensure the safety of all road users.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- d) The information contained in the BAR dated December 2019 is accurate and credible.
- e) Public participation was carried out in accordance with the EIA Regulations 2014, as amended and all comments received were accommodated by the EAP and applicant appropriately.
- f) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the BAR 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.

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Annexure 2: Locality Plan



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Annexure 3: List of properties

N1-16 PRIVATELY OWNED AFFECTED PROPERTIES

No	Farm name	Farm Portion	Farm Number	Farm size (ha)	SG number
1	Notre Dame	Re	1576	556.5	F04200000000157600000
2	Bellevue	Re	51	548.4	F0420000000005100000
3	Kleinfontein	Re	808	1016.7	F0420000000080800000
4	Kleinfontein Small Holdings	0	1	5.761	F0420006000000100000
5	Kleinfontein Small Holdings	0	4	5.339	F0420006000000400000
6	Kleinfontein Small Holdings	0	5	4.6222	F0420006000000500000
7	Kleinfontein Small Holdings	0	8	4.6027	F0420006000000800000
8	Kleinfontein Small Holdings	0	9	4.6393	F0420006000000900000
9	Kleinfontein Small Holdings	0	10	5.6752	F04200060000001000000
10	Kleinfontein Small Holdings	0	23	4.5152	F04200060000002300000
11	Kleinfontein Small Holdings	0	24	5.1839	F04200060000002400000
12	Kleinfontein Small Holdings	0	25	4.6167	F04200060000002500000
13	Kleinfontein Small Holdings	0	26	4.5848	F04200060000002600000

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No	Farm name	Farm Portion	Farm Number	Farm size (ha)	SG number
14	Kleinfontein Small Holdings	0	42	13.6512	F04200060000004200000
15	Kleinfontein Small Holdings	0	43	10.6114	F04200060000004300000
16	Goedgenoeg	0	2249	407.8033	F04200000000224900000
17	Grootdam	1	611	547.7	F04200000000061100001
18	Vaalspruit	Re	2250	63.2892	F04200000000225000000
19	Liberage	1	2251	164.1686	F04200000000225100000
20	Yip-I-Addy	Re	1943	197.0024	F04200000000194300000
21	Vogelfontein	Re	1970	250.3	F04200000000197000000
22	Taaiboschkuil	Re	844	1333.8	F04200000000084400000
23	Rooskoppies	Re	749	595	F04200000000074900000
24	Helpmakaar	1/Re	708	927.4942	F04200000000070800001
25	Mooiplaat	0	846	509.4	F04200000000084600000
26	Taaibosch	Re	43	347.7	F0420000000004300000
27	Smaldeel	Re	2298	229.3	F04200000000229800000
28	Esperanza	Re	1553	571.4	F04200000000155300000
29	Cyferfontein	Re	631	305.6	F03500000000063100000
31	Keerom	Re	2297	229.3	F04200000000229700000
32	Stille woning	Re	1462	337.8529	F04200000000146200000
33	Bloemhoek	0	544	302.1560	F03500000000054400000
34	Waterval	Re	310	349.4	F03500000000031000000
35	Klipplaat	Re	94	91.6	F0350000000009400000
36	Zandriverspoort	Re	213	193	F03500000000021300000
37	Zandriverspoort	1	213	3.2374	F03500000000021300001

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No	Farm name	Farm Portion	Farm Number	Farm size (ha)	SG number
38	Zandriverspoort	3	213	189.6	F0350000000021300003
39	Zandriverspoort	4	213	225.3m	F0350000000021300004
40	Schaapdraai	RE	333	254.7073	F0350000000033300000
41	Karreepoort	1	624	215.3847	F0350000000062400001
42	Fouriesdeel	1	125	9.1516	F0350000000012500001
43	Fouriesdeel	Re	125	75.2119	F0350000000012500000
44	Ventersdeel	1	334	145.8	F0350000000033400001
45	Fouriespoort	2	365	112.7608	F0350000000036500002
46	Fouriespoort	3	365	48.5	F0350000000036500003
47	Corangamite	Re	244	481.99	F0350000000024400000
48	Christians Ruhe	Re	350	527.7	F0350000000035000000
49	Christians Ruhe	1	350	176 sqm	F0350000000035000001
50	Damplaats	Re	556	70.8	F0350000000055600000
51	Kromfontein	Re	209		F0350000000020900000
52	Kromfontein	0	767		F0350000000076700000
53	Blaauwbank	1	116	53.9	F0350000000011600001
54	Ventersburg	Re	354		F0350000000035400000
	Dorpsgronde				

N1-16 – SIDE ROADS

No	Farm name	Farm Portion	Farm Number	Farm size (ha)	SG number
1	Kleinfontein Small Holdings		36	13.1254	F0420006000003600000
2	Roodekraal	Re	248		F0420000000024800000
4	Dankbaarfontein	0	48		F042000000004800000
5	Helpmakaai	1	708		F0420000000070800000
	Vredeshoop	1	1928		F0420000000192800001
	Pienaarsrust	0	1282		F0420000000192800001
	Vaalkop	0	1458		F0420000000145800000
	Klipfontein	Re	1925		F0420000000192500000
	Cyresfontein	Re	108		F0420000000010800000

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	Lena	0	2252		F04200000000225200000
	Roodekraal	1	248		F0420000000024800001
	Roodekraal	7	248		F0420000000024800007
	Kleinfontein Small Holdings		1		F0420006000000100000
			2		F0420006000000200000
			3		F0420006000000300000
			4		F0420006000000400000
			5		F0420006000000500000
			6		F0420006000000600000
			7		F0420006000000700000
			8		F0420006000000800000
			9		F0420006000000900000
			10		F04200060000001000000
			11		F04200060000001100000
			12		F04200060000001200000
			13		F04200060000001300000
			14		F04200060000001400000
			15		F04200060000001500000
			16		F04200060000001600000
			17		F04200060000001700000
			18		F04200060000001800000
			19		F04200060000001900000
			20		F04200060000002000000
			21		F04200060000002100000
			22		F04200060000002200000
			23		F04200060000002300000
			24		F04200060000002400000
			25		F04200060000002500000
			26		F04200060000002600000
			27		F04200060000002700000

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			28		F04200060000002800000
			29		F04200060000002900000
			30		F04200060000003000000
			31		F04200060000003100000
			32		F04200060000003200000
			33		F04200060000003300000
			34		F04200060000003400000
			35		F04200060000003500000
			37		F04200060000003700000
			38		F04200060000003800000
			39		F04200060000003900000
			40		F04200060000004000000
			41		F04200060000004100000
			42		F04200060000004200000
			43		F04200060000004300000
		0	1958		F04200000000195800000
	Poulienshof				
	Eittel	0	1624		F04200000000162400000
	Eben Haezer	0	1451		F04200000000145100000
	Helpmekaar	0	2375		F04200000000237500000

N1-16 – SANRAL OWNED PROPERTIES (ROAD RESERVE)

No	Farm name	Farm Portion	Farm Number	Farm size (ha)	SG number
1	Ballymena	1	1243		F04200000000124300001
2	Notre Dame	1	1576	8.1	F04200000000157600001
3	Bellevue	1	51	8	F04200000000005100001
4	Kleinfontein	2	808	11.2	F04200000000080800002
5	Grootdam	3	611	11.4	F04200000000061100003
6	Yip-l-Addy	1	1943	7.6	F04200000000194300001
7	Vogelfontein	1	1970	3.3	F04200000000197000001
8	Rooikoppies	1	749	1.4	F04200000000074900001
9	Helpmekaar	2	708	3.9	F04200000000070800002

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10	Taaibosch	1/2	43	83 sqm	F0420000000004300002
11	Esperanza	1	1553	7.8	F04200000000155300001
12	Cyferfontein	1	631		F03500000000063100001
13	Keerom	1	2297	7.2 sqm	F04200000000229700001
14	Stillewoning	1	1462	9.7	F04200000000146200001
15	Waterval	2	310	8.3	F03500000000031000002
16	Waterval	3	310		F03500000000031000003
17	Klipplaat	1	94	6.9	F03500000000009400001
18	Zandriverspoort	8	213	1.82	F03500000000021300008
19	Zandriverspoort	5	213	5.6	F03500000000021300005
20	Zandriverspoort	7	213	3.4	F03500000000021300007
21	Schaapdraai	1	333	7771 sqm	F03500000000033300001
22	Fouriesdeel	3	125	1.2	F03500000000012500003
23	Ventersdeel	2	334	6.4	F03500000000033400002
24	Fouriespoort	5	365	1.8	F03500000000036500005
25	Fouriespoort	8	365		F03500000000036500008
26	Fouriespoort	6	365		F03500000000036500006
27	Corangamite	2	244	8.3	F03500000000024400002
28	Christians Ruhe	2	350	9.6	F03500000000035000002
29	Damplaats	1	556	3.3	F03500000000055600001
30	Kromfontein	10	209		F03500000000020900010
31	Blaauwbank	3	116		F03500000000011600003
32	Ventersburg Dorpsgronde	20	354		F03500000000035400020

Annexure 4: GPS Coordinates of Bridges and Culverts

N1-16 – RIVERS, SPRUITE AND NON-PERENNIAL STREAMS – BRIDGES AND CULVERTS

No	Km point	Farm name	Farm Portion	Farm Number	Coordinates (start left)		Water resource	Quaternary	Length (m)	Coordinates (end right)		Aurecon Drainage report reference #
					South	East				South	East	
1	90.820	Notre Dame	Re	1576	28°26'51.01"S	27°01'59.18"E	Non-perennial stream	C42G	50	28°26'50.61"S	27°02'00.70"E	DRMC - C3244
3	93.560	Bellevue	Re	51	28°26'34.26"S	27°01'59.42"E	Dam wall	C42G	70	28°26'32.15"S	27°01'59.47"E	DRMC - C3244
5	93.560	Kleinfontein	2	808	28°25'21.54"S	27°01'59.14"E	Non-perennial stream	C42G	45	28°25'21.49"S	27°02'00.73"E	DRMC - C3244
7	96.525	Kleinfontein	Re	808	28°25'16.71"S	27°02'02.15"E	Non-perennial stream	C42G	45	28°25'15.92"S	27°02'03.33"E	DRMC - C3244
9	97.514	Kleinfontein Small Holdings		43	28°24'5.18"S	27°23'02"E	Venterspruit	C42G	60	28°24'2.95"S	27°23'02"E	DRMC - IDC0096
11	97.514	Grootdam	3	611	28°23'47.28"S	27°02'18.74"E	Non-perennial stream	C42G	50	28°23'48.50"S	27°02'19.53"E	DRMC - IDC0096

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No	Km point	Farm name	Farm Portion	Farm Number	Coordinates (start left)		Water resource	Quaternary	Length (m)	Coordinates (end right)		Aurecon Drainage report reference #			
					South	East				South	East				
13	99.718	Vaalspruit	RE	2250	28°22'13.09"S	27°34.44"E	Non-perennial stream	C42G	125	-	-	DRMC - C3248			
													Grootdam	3	611
													Grootdam	1	611
15	102.342	Taaiboschkuij	Re	844	28°20'54.63"S	27°344.24"E	Non-perennial stream	C42G	80	-	-	DRMC - C3249			
													Vogelfontein	1	1970
													Vogelfontein	Re	1970
18	106.440	Smaldeel	Re	2298	28°18'44.55"S	27°3'54.40"E	Non-perennial stream	C42G	110	-	-	DRMC - C3252			
													Esperanza	1	1553
													Esperanza	Re	1553
20	108.594	Keerom	Re	2297	28°17'31.75"S	27°3'52.54"E	Non-perennial stream	C42G	185	-	-	DRMC - C3257			
													Keerom	1	2297
													Keerom	Re	2297
No	Km point	Farm name	Farm Portion	Farm Number	Coordinates (start left)		Water resource	Quaternary	Length (m)	Coordinates (end right)		Aurecon Drainage report reference #			
		Klipplaat	Re	94	South	East	Stream			South	East				

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22	0.410	Waterval	Re	310	28°14'30.48"S	27° 5'14.00"E	Non-perennial stream	C42G	20	28°14'28.79"S	27° 5'14.26"E	DRMC - chapter 5.9	
22B		Klipplaat	Re	94	28°14'31.13"S	27° 5'20.56"E	Non-perennial stream	C42G	21	28°14'30.53"S	27° 5'20.64"E		
24	116.273	Zandivierspoort	5	213	28°13'49.76"S	27° 5'17.20"E	Non-perennial stream	C42G	90			DRMC - C3258	
		Zandivierspoort	Re	213							28°13'48.89"S	27° 5'19.99"E	
26	121.398	Ventersdeel	2	334	28°11'12.43"S	27° 6'13.10"E	Non-perennial stream	C42F	60	-	-	DRMC - C3260	
		Ventersdeel	1	334							28°11'12.38"S	27° 6'15.11"E	
		Ventersdeel	1										
		Ventersdeel	1										
28	123.709	Corangamite	Re	244	28°10'2.84"S	27° 6'43.84"E	Non-perennial stream	C42F	120				
		Corangamite	2	244									
		Corangamite	Re	244							28°10'4.41"S	27° 6'47.70"E	

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No	Km point	Farm name	Farm Portion	Farm Number	Coordinates (start left)		Water resource	Quaternary	Length (m)	Coordinates (end right)		Aurecon Drainage report reference #									
					South	East				South	East										
30	128.325	Christians Ruhe	1	350	28° 7'38.39"S	27° 7'17.99"E	Non-perennial stream	C42F	140	-	-										
													Christians Ruhe	2	350	-	-	-	-	-	-
													Christians Ruhe	Re	350	-	-	28° 7'40.17"S	27° 7'22.39"E		
32	129.004	Dampplaats	1	556	28° 7'17.34"S	27° 7'23.42"E	Cattle crossing and draining culvert	C42H	75	-	-	DRMC - C3263									
													Dampplaats	Re	556	-	-	28° 7'17.68"S	27° 7'26.11"E		
													Dampplaats	Re	556	-	-	28° 7'16.11"S	27° 7'24.20"E		
34	130.270	Kromfontein	10	209	28° 6'37.35"S	27° 7'34.38"E	Non-perennial stream	C42H	80	-	-	DRMC - C3264									
													Kromfontein	0	767	-	-	28° 6'38.41"S	27° 7'36.76"E		
													Kromfontein	Re	767	-	-	28° 6'36.81"S	27° 7'34.70"E		
36	132.320	Kromfontein	10	209	28° 5'37.86"S	27° 87.73"E	Non-perennial stream	C42H	30	-	-	DRMC - C3265									
													Blaauwbank	3	116	-	-	28° 5'38.71"S	27° 88.21"E		
													Blaauwbank	3	116	-	-	28° 5'38.71"S	27° 88.21"E		

Note ## - Drainage Report abbreviations used:

- DRMC = Drainage Report Major Culverts, 2018-08-16, Rev1
- DRV = Drainage Report Venterspruit Bridge: B1525, August 2018
- DRS = Drainage Report Sand River Bridge: B1526, August 2018
- DRK = Drainage Report Koolspruit Bridge: B1527, August 2018
- DRE = Drainage Report Erasmuspruit Bridge: B1528, August 2018

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N1-16 – CATTLE CROSSINGS

No	Farm name	Farm Portion	Farm Number	Coordinates (start left)		Water resource	Length (m)	Coordinates (end right)		Km point
				South	East			South	East	
1	Notre Dame	Re	1576	28°26'53.73"S	27°01'59.15"E	Cattle crossing	45	-	-	90.738
		1	1576	-	-			28°26'53.68"S	27°02'00.59"E	
2	Bellevue	Re	51	28°26'31.93"S	27°1'59.85"E	Cattle crossing	45	-	-	91.408
		1	51	-	-			28°26'31.95"S	27°2'1.49"E	
3	Grootdam	3	611	28°23'47.28"S	27°02'18.74"E	Cattle crossing		-	-	96.542
		1	611	-	-			28°23'48.50"S	27°02'19.53"E	
4	Taalboskuil	Re	844	28°20'53.76"S	27°3'44.63"E	Cattle crossing	80	-	-	102.362
		1	1970	-	-			-	-	
5	Vogelfontein	Re	1970	-	-	Cattle crossing	110	28°20'53.78"S	27°3'44.63"E	109.366
		Re	2297	28°17'9.52"S	27°3'50.43"E			-	-	
6	Keerom	Re	2297	-	-	Cattle crossing	110	28°17'9.41"S	27°3'54.43"E	109.366
		Re	2297	-	-			-	-	
7	Waterval	3	310	28°14'51.87"S	27°5'15.76"E	Cattle crossing	50	28°14'52.81"S	27°5'17.09"E	114.330
		1	1462	28°16'5.43"S	27°4'14.90"E			Cattle crossing	75	
8	Stille Woning	Re	1462	-	-	Cattle crossing	100	28°16'6.21"S	27°4'17.47"E	121.325
		2	334	28°11'18.05"S	27°6'12.87"E			-	-	
9	Ventersdeel	1	334	-	-	Cattle crossing	85	28°11'17.73"S	27°6'14.89"E	123.820
		Re	244	28°10'0.67"S	27°6'45.98"E			-	-	
10	Corangamite	2	244	-	-	Cattle crossing	85	-	-	123.820
		Re	244	-	-			-	-	
10	Christian Ruhe	Re	350	28°8'42.73"S	27°7'8.42"E	Cattle crossing	110	28°10'2.04"S	27°6'48.69"E	126.344
		2	350	-	-			-	-	
	Christian Ruhe	Re	350	-	-			28°8'43.21"S	27°7'12.34"E	

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