



REFERENCE: 16/3/3/1/B2/32/1079/18
NEAS REFERENCE: WCP/EIA/0000504/2018
ENQUIRIES: Ms. S. Adams
DATE: 2019 -04- 09

The Director
Department of Transport and Public Works: Road Network Management
P. O. Box 2603
CAPE TOWN
8001

Attention: Mr H. Wolff

Tel: (021) 483 0580
E-mail: herman.wolff@westerncape.gov.za

Dear Sir

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014: THE CONSTRUCTION OF PASSING LANES ALONG TR31/01 AND WIDENING OF FIVE INTERSECTIONS ALONG TR31/01 AND TR31/02 BETWEEN WORCESTER AND ASHTON IN THE CAPE WINELANDS DISTRICT

1. With reference to the above application, the Department hereby notifies you of its decision to **grant** Environmental Authorisation, attached herewith, together with the reasons for the decision.
2. In terms of Regulation 4 of the Environmental Impact Assessment Regulations, 2014 (as amended), you are instructed to ensure, within 14 days of the date of the decision on the application, that all registered interested and affected parties ("I&APs") are provided with access to the decision and reasons for the decision, and that all registered I&APs are notified of their right to appeal.
3. Your attention is drawn to Chapter 2 of the Appeal Regulations, 2014, which prescribes the appeal procedure to be followed. This procedure is summarized in the attached Environmental Authorisation.

Yours faithfully


MR ZAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT – REGION 1

Cc: (1) Ms. T. Heydenrych (JG Afrika (Pty) Ltd) Fax: (021) 532 0950
(2) Mr. D. McThomas (Breede Valley Municipality) Fax: (023) 348 2808
(3) Mr. S. Mokweni/ Ms. T. Brunings (Langeberg Municipality) Fax: (023) 615 2272
(4) Mr. H. Prince (Cape Winelands District Municipality) Fax: (021) 887 3451
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ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014: THE CONSTRUCTION OF PASSING LANES ALONG TR31/01 AND WIDENING OF FIVE INTERSECTIONS ALONG TR31/01 AND TR31/02 BETWEEN WORCESTER AND ASHTON IN THE CAPE WINELANDS DISTRICT

With reference to your application for the abovementioned, find below the outcome with respect to this application.

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014, the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to Alternative Option 2 and described in the Basic Assessment Report ("BAR"), dated November 2018.

The applicant for this Environmental Authorisation is required to comply with the conditions set out in section E below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Department of Transport and Public Works
Directorate: Road Network Management
c/o Mr. Herman Wolff
P. O. Box 2603
CAPE TOWN
8001

Tel: (021) 483 0580

E-mail: herman.wolff@westerncape.gov.za

The abovementioned applicant is the holder of this Environmental Authorisation and is hereinafter referred to as "**the holder**".

B. LIST OF ACTIVITIES AUTHORISED

Listed Activities	Project Description
<p>Listing Notice Activity Number: 19 <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 or more than 10 cubic metres from a watercourse;</i></p> <p><i>but excluding where such infilling, depositing, dredging, excavation, removal or moving-</i></p> <p>(a) <i>Will occur behind a development setback;</i> (b) <i>Is for maintenance purposes undertaken in accordance with a maintenance management plan;</i> (c) <i>Falls within the ambit of activity 21 in this Notice, in which case that activity applies.</i> (d) <i>Occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</i> (e) <i>Where such development is related to the development of a port or harbor, in which case activity 26 in Listing Notice 2 of 2014 applies.</i></p>	<p>The widening of culverts will require the infilling of more than 10m³ of material into a watercourse.</p>
<p>Listing Notice 1 Activity: 56 <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; or</i> <i>(ii) where no reserve exists, where the existing road is wider than 8 metres;</i></p> <p><i>excluding where widening or lengthening occur inside urban areas."</i></p>	<p>The proposal entails the widening of TR31/01 (road reserve of 30m) and TR31/02 (road reserve of 50m) by more than 6 metres outside urban areas.</p>
<p>Listing Notice 3 Activity: 18</p>	<p>The proposal entails the widening of TR31/01 (road reserve of 30m) and TR31/02 (road reserve of 50m) by</p>

<p>The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre-</p> <p><i>i. Western Cape</i></p> <p><i>i. Areas zoned for use as public open space or equivalent zoning;</i></p> <p><i>ii. All areas outside urban areas:</i></p> <p><i>(aa) Areas containing indigenous vegetation;</i></p> <p><i>(bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or</i></p> <p><i>iii. Inside urban areas:</i></p> <p><i>(aa) Areas zoned for conservation use; or</i></p> <p><i>(bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.</i></p>	<p>more than 4 metres outside urban areas.</p>
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The abovementioned list is hereinafter referred to as "**the listed activities**".

The holder is herein authorised to undertake the following alternative:

- The widening of the current surface road by 2.9m to accommodate passing lanes between the following kilometre intervals along TR31/01-
 - a) Passing Lane 1: km16.20 - km21.30; and
 - b) Passing Lane 2: km23.60 - km28.20.
- The upgrade of the following intersections including the widening of the road surface on either side by a maximum of 2.9m, with a total length of approximately 600m, at the following kilometre intervals:
 - TR31/01:
 - a) km13.58- Nuy Intersection;
 - b) km35.55- Goree Intersection; and
 - TR31/02:
 - a) km9.57- Bon Courage Intersection; and
 - b) km13.57- Bonnievale Intersection.
- The upgrade of the Gorees Hoogte Intersection at km40.21 will include the widening of one side of the road by a maximum of 2.9m.

- The widening of the following 18 culverts along the route:

SECTION	SV(KM)	WATERCOURSE
TR31/01	17.07	Toontjies Tributary
TR31/01	18.19	Toontjies Tributary
TR31/01	18.73	Toontjies Tributary
TR31/01	19.32	Toontjies Tributary
TR31/01	19.99	Toontjies Tributary
TR31/01	20.71	Toontjies Tributary
TR31/01	23.90	Vink Tributary
TR31/01	25.20	Vink Tributary
TR31/01	25.53	Vink Tributary
TR31/01	25.97	Vink Tributary
TR31/01	26.32	Vink Tributary
TR31/01	26.94	Vink Tributary
TR31/01	27.30	Vink Tributary
TR31/01	27.57	Vink Tributary
TR31/01	27.77	Vink Tributary
TR31/01	39.78	Minor Tributary of the Breede River
TR31/02	9.37	Doring River
TR31/02	9.97	Klaasvoogds River

C. SITE DESCRIPTION AND LOCATION

The authorised listed activities will be undertaken along TR31/01 and TR31/02 between Worcester and Ashton at the following co-ordinates:

Passing Lane 1	Latitude	Longitude
Start	33°42'6.03"S	19°36'29.55"E
Middle	33°43'2.05"S	19°37'42.35"E
End	33°43'59.60"S	19°38'56.42"E
Passing Lane 2		
Start	33°44'6.94"S	19°40'22.31"E
Middle	33°44'32.10"S	19°41'44.08"E
End	33°45'3.25"S	19°43'0.04"E
Nuy Intersection- TR31/01		
	Latitude	Longitude
	33°41'16.62"S	19°35'15.17"E

Goree Intersection- TR31/01	33°47'26.46"S	19°46'45.62"E
Gorees Hoogte Intersection- TR31/01	33°48'14.25"S	19°49'21.36"E
Bon Courage Intersection- TR31/02	33°49'24.66"S	19°58'39.69"E
Bonnievale Intersection- TR31/02	33°50'22.14"S	20° 0'56.73"E

Refer to Annexure 1: Locality Map

The above is hereinafter referred to as "**the site**".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

JG Afrika (Pty) Ltd.
c/o Tamryn Heydenrath
14 Central Square
PINELANDS
7405

Tel: (021) 530 1800
Fax: (021) 532 0950

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activity specified in Section B above in accordance with and restricted to Alternative Option 2 as described in the Basic Assessment Report ("BAR"), dated November 2018 on the site as described in Section C above.
2. The Environmental Authorisation is valid for a period of **five years** from the date of issue within which commencement must occur.
3. The development must be concluded within **ten years** from the date of commencement of the listed activity.
4. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.
5. Any changes to, or deviations from the scope of the alternative described in section B above must be accepted or approved, in writing, by the Competent Authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be

necessary for the holder to apply for further authorisation in terms of the applicable legislation.

Written notice to the Competent Authority

6. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction activities. The notice must:
 - 6.1 make clear reference to the site details and EIA Reference number given above; and
 - 6.2 also include proof of compliance with the following conditions described herein:

Conditions: 7, 8 and 9

Notification and administration of appeal

7. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision—
 - 7.1 notify all registered Interested and Affected Parties ("I&APs") of –
 - 7.1.1 the outcome of the application;
 - 7.1.2 the reasons for the decision as included in Annexure 3;
 - 7.1.3 the date of the decision; and
 - 7.1.4 the date when the decision was issued;
 - 7.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations, 2014 detailed in Section F below;
 - 7.3 draw the attention of all registered I&APs to the manner in which they may access the decision; and
 - 7.4 provide the registered I&APs with:
 - 7.4.1 the name of the holder (entity) of this Environmental Authorisation;
 - 7.4.2 name of the responsible person for this Environmental Authorisation;
 - 7.4.3 postal address of the holder;
 - 7.4.4 telephonic and fax details of the holder;
 - 7.4.5 e-mail address, if any, of the holder; and
 - 7.4.6 the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the 2014 National Appeals Regulations.
8. The listed activities, including site preparation, may not commence within 20 (twenty) calendar days from the date of issue of this Environmental Authorisation. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided.

Management of activity

9. The draft Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation must be amended and must then be re-submitted to and approved by the Competent Authority prior to commencement of construction activities. The EMPr must be amended as follows:

- 9.1. Mitigation measures must include the responsible person as well as the frequency of monitoring the action.

10. The EMPr must be included in all contract documentation for all phases of implementation.

Monitoring

11. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, before commencement of any land clearing or construction activities to ensure compliance with the provisions of the EMPr and the conditions contained herein.
12. A copy of the Environmental Authorisation, EMPr, audit reports and compliance monitoring reports must be kept at the site of the authorised activities, and must be made available to anyone on request, including a publicly accessible website.
13. Access to the site referred to in Section C above must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

Auditing

14. In terms of Regulation 34 of the NEMA EIA Regulations, 2014, the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014.

The holder must undertake an environmental audit quarterly for the duration of the construction phase and submit Environmental Audit Reports to the Competent Authority once every six months during the construction phase. The final Environmental Audit Report must be submitted to the Competent Authority within six months after operation commenced.

The holder must, within 7 days of the submission of each of the above-mentioned reports to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and on a publicly accessible website (if applicable).

Specific Conditions

15. Any work instream should be kept to a minimum, both spatially and temporarily. The erosion control and other mitigation measures as outline in the Freshwater Impact Assessment dated August 2018 by Toni Belcher and Dana Grobler, must be implemented. Any new culverts must be placed higher than the base level of the watercourses to ensure that low flows are not impeded and should allow for improved water flow to mimic natural systems as far as possible.
16. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape.

Heritage remains include: meteorites, archaeological and/or palaeontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; and/or graves or unmarked human burials including grave goods and/or associated burial material.

17. A qualified archaeologist and/or palaeontologist must be contracted where necessary (at the expense of the holder) to remove any heritage remains. Heritage remains can only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant heritage resources authority.

F. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activity.
2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.
3. If the holder does not commence with a listed activity within the period referred to in Condition 2, this Environmental Authorisation shall lapse for that activity, and a new application for Environmental Authorisation must be submitted to the Competent Authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the Competent Authority prior to the expiry date of the Environmental Authorisation.
4. The holder must submit an application for amendment of the Environmental Authorisation to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the EIA Regulations, 2014 must be submitted.

By facsimile: (021) 483 4174; or
By hand: Attention: Mr Jaap de Villiers (Tel: 021 483 3721)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

Note: For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to Jaap.DeVilliers@westerncape.gov.za.

5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from Appeal Authority at: Tel. (021) 483 3721, E-mail Jaap.DeVilliers@westerncape.gov.za or URL <http://www.westerncape.gov.za/eadp>.

H. DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of this Environmental Authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

Yours faithfully



MR. ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DATE OF DECISION: 09/04/2019

Cc: (1) Ms. T. Heydenrych (JG Afrika (Pty) Ltd)

(2) Mr. D. McThomas (Breede Valley Municipality)

(3) Mr. S. Mokweni/ Ms. T. Brunings (Langeberg Municipality)

(4) Mr. H. Prince (Cape Winelands District Municipality)

(5) Ms. E. Rossouw (BGCMA)

Fax: (021) 532 0950

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Fax: (021) 887 3451

Fax: (023) 347 2012

ANNEXURE 1: LOCALITY MAP

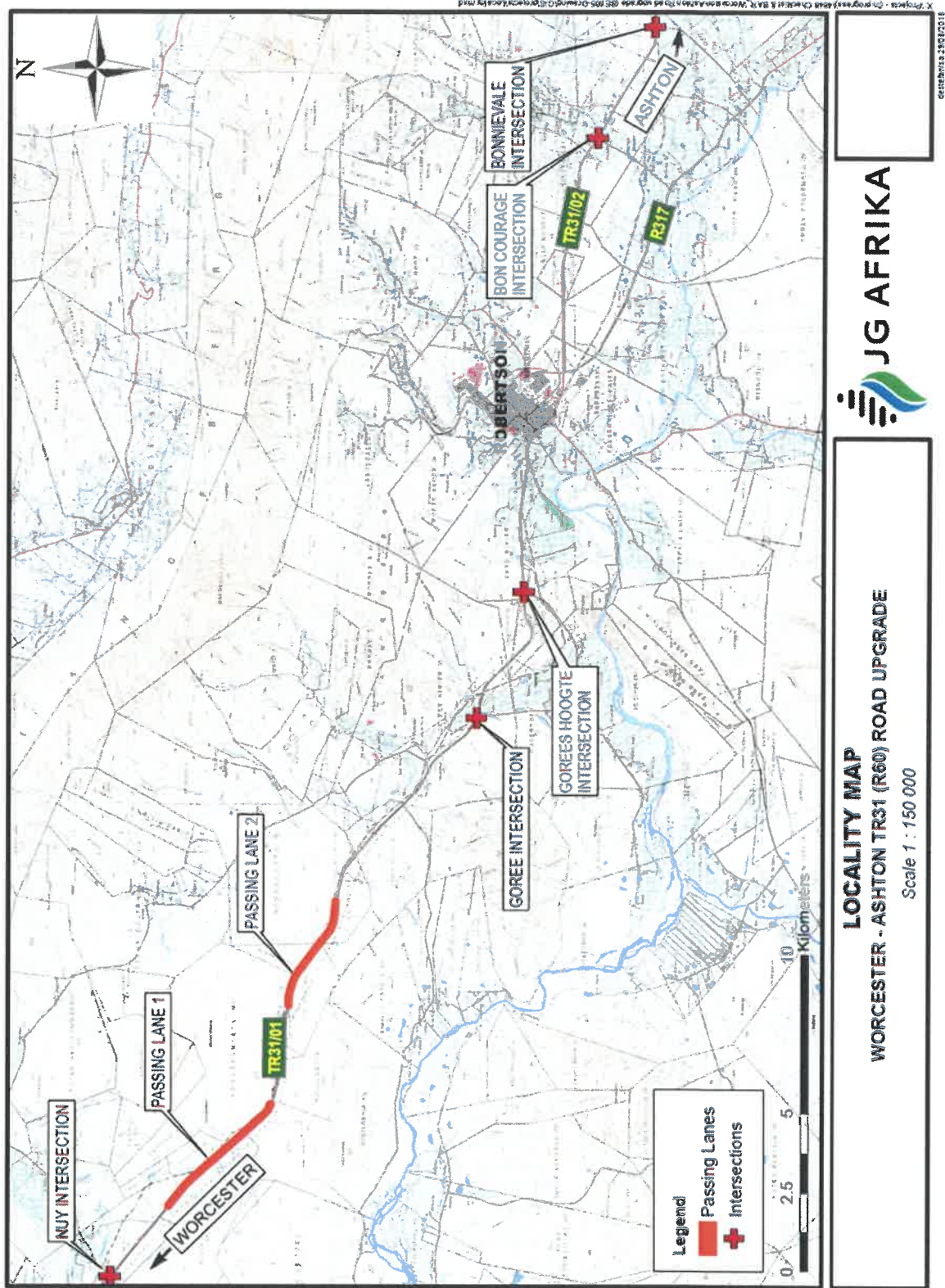


Figure 1: The locality map which indicates the upgrade locations of the passing lanes and intersections along the route of TR31/01 and TR31/02.

ANNEXURE 2: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, inter alia, the following:

- a) The information contained in the Application Form dated 17 October 2018, the final Basic Assessment Report ("BAR") submitted on 4 December 2018 and the EMPr submitted together with the final Basic Assessment Report;
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation and Alternatives (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);
- d) The comments received from I&APs and responses to these, included in the final Basic Assessment Report received on 4 December 2018; and
- e) The balancing of negative and positive impacts and proposed mitigation measures.

No site visits were conducted. The Competent Authority had sufficient information before it to make an informed decision without conducting a site visit.

All information presented to the Competent Authority was taken into account in the consideration of the application for Environmental Authorisation. A summary of the issues that were considered to be the most significant for the decision is set out below.

1. Public Participation

The public participation process included:

- identification of and engagement with I&APs;
- notice boards were placed at either end of the passing lanes and at each intersection where the listed activities are to be undertaken on 4 September 2018;
- giving written notice to the owners and occupiers of land adjacent along the route where the listed activities are to be undertaken, the municipality and ward councilor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities on 17 October and 18 October 2018;
- the placing of a newspaper advertisement in the '*Breede River Gazette*' and the '*Worcester Standard*' on 16 October 2018 and 18 October 2018, respectively; and
- making the draft BAR available to I&APs for public review from 18 October 2019.

The Department is satisfied that the Public Participation Process that was followed met the minimum legal requirements and all the comments raised and responses thereto were included in the comments and response report.

Specific alternatives, management and mitigation measures have been considered in this Environmental Authorisation and EMPr to adequately address the concerns raised.

2. Alternatives

The following four options were considered by the project engineers and the applicant:

Option 1

This option included the maintenance of the existing road, as described below, with no geometric changes:

- Surface patches: Excavating 50mm deep and replacing with a Hot-mix Asphalt concrete ("HMA").
- Base patches: Excavating the existing base material and stabilizing it to a SANS 3001-BSM1 quality material standard. Surface with 50mm thick HMA.
- Subbase patches: Excavating to the bottom of subbase and replace with a new C4 (class/quality of material used) subbase layer and BSM1 base layer. Surface with 50mm thick HMA.
- Seal the entire road width with either a 20/7/7 split rubber seal or 20mm Cape seal.

This option is not preferred as it will result in the continuation of the deterioration of the road and will continue to contribute to the high number of accidents along this route.

Option 2 (preferred alternative)

This option included the maintenance of the existing road, as described in Option 1, with the following minor geometric improvements:

- The widening of the current surfaced road by 2.9m to accommodate passing lanes between the following kilometer intervals along TR31/01-
 - a) Passing Lane 1: km16.20 - km21.30; and
 - b) Passing Lane 2: km23.60 - km28.20.
- The upgrade of the following intersections including the widening of the road surface on either side by a maximum of 2.9m, with a total length of approximately 600m, at the following kilometer intervals:
 - TR31/01:
 - a) km13.58- Nuy Intersection; and
 - b) km35.55- Goree Intersection.
 - TR31/02:
 - a) km9.57- Bon Courage Intersection; and
 - b) km13.57- Bonnievale Intersection.
- The upgrade of the Gorees Hoogte Intersection at km40.21 along TR31/01 will include the widening of one side of the road by a maximum of 2.9m with a total length of approximately 600m.
- The widening of the following 18 culverts along the route:

SECTION	SV(KM)	WATERCOURSE
TR31/01	17.07	Toontjies Tributary
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TR31/01	19.99	Toontjies Tributary

TR31/01	20.71	Toontjies Tributary
TR31/01	23.90	Vink Tributary
TR31/01	25.20	Vink Tributary
TR31/01	25.53	Vink Tributary
TR31/01	25.97	Vink Tributary
TR31/01	26.32	Vink Tributary
TR31/01	26.94	Vink Tributary
TR31/01	27.30	Vink Tributary
TR31/01	27.57	Vink Tributary
TR31/01	27.77	Vink Tributary
TR31/01	39.78	Minor Tributary of the Breede River
TR31/02	9.37	Doring River
TR31/02	9.97	Klaasvoogds River

This option, although more expensive than Option 1, is preferred as the level of services provided by the road will be improved. Passing lanes will be constructed along high accident risk areas and right turn lanes will be provided at the intersections, which will reduce the high accident rate along the route.

Option 3

This option included the rehabilitation of the existing roadway in conjunction with a cross section widening to accommodate a 2-1 lane configuration. The actions will include the following:

- Widen the road prism in fill and cut areas to accommodate a widened pavement.
- Construct new selected and subbase ($\pm 300\text{mm}$) layers to a level equivalent to the existing base layer.
- Recycle and stabilise the existing subbase and base layers with the new widened subbase to a C3 or equivalent quality.
- Overlay the entire new road width with a new base coarse layer.
- Surface the new road width using either a double seal or asphalt.

Even though this option will address the capacity and level of service problems for the long term (15 - 20 year period), this option is not preferred due to budget and time constraints.

Option 4

This option includes the upgrade of the roadway to a dual carriageway. The action to upgrade the roadway to an undivided dual carriageway is as follows:

- Widen the road prism in fill and cut areas to accommodate a widened pavement.
- Construct new selected and subbase ($\pm 300\text{mm}$) layers to a level equivalent to the existing base layer.
- Recycle and stabilise the existing subbase and base layers with the new widened subbase to a C3 or equivalent quality.
- Overlay the entire new road width with a new base coarse layer.
- Surface the new road width using either a double seal or asphalt.

Even though this option will address the capacity and level of service problems for the long term (25+ year period), this option involves the acquisition of additional land and therefore, is not feasible due to budget and time constraints.

The No-Go Option

This option entails not upgrading the current road infrastructure. This option is not preferred as the road will remain unable to accommodate the increasing traffic volumes and continue to contribute to the high accident rate along this section of the route.

3. Impact Assessment and Mitigation measures

3.1 Activity need and desirability

The road was originally designed as a "Class 1" road and is currently exceeding its design capacity. Therefore, an upgrade to the road is necessary to increase its capacity to enable it to cater for the increasing number of road users. The construction of passing lanes and dedicated right turn lanes at the intersections will further positively impact on travelling time and contribute to the reduction in the number of accidents along this route.

3.2 Biophysical Impacts

Even though the road upgrade falls within Ecological Support Areas and Critical Biodiversity Areas (according to the Western Cape Biodiversity Spatial Plan), all construction work will be undertaken within the road reserve. The Botanical Assessment dated 16 September 2018 compiled by Bergwind Botanical Surveys and Tours (Dr David McDonald) indicates that the vegetation encountered is mostly of low botanical sensitivity and no species of conservation concern is present at any of the sites. Through the implementation of the EMPr and recommendations made by the botanical specialist, impacts will be avoided or mitigated to an acceptable level.

The road upgrade traverses five rivers that form part of the greater Breede River System. The town of Robertson is located within a valley there are valley bottom wetland areas associated with the three larger tributaries. According to the Freshwater Impact Assessment dated August 2018 compiled by BlueScience (Toni Belcher and Dana Grobler), the expected impacts of the proposed activities are likely to be of low significance and largely limited to previously disturbed areas surrounding the existing road and culvert structures. Through the implementation of the EMPr and recommendations made by the specialists, impacts on the watercourses will be mitigated and the hydrological functioning of the rivers/tributaries will be improved.

The development will result in both negative and positive impacts.

Negative Impacts:

- The development will result in impacts such as noise, dust and traffic delays during the construction phase.
- Impacts on watercourses are anticipated but will be mitigated to an acceptable level and managed in terms of the EMPr.

Positive impacts:

- The safety of the road for road users will be improved.

- The upgrade of the culverts to a bigger size will allow adequate passage of water, will improve storm water management and hydrological functioning of the rivers which will prevent potential flooding.

4. National Environmental Management Act Principles

The National Environmental Management Principles (set out in section 2 of the NEMA, which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activity will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activity can be mitigated to acceptable levels.

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