



REFERENCE: 16/3/3/1/B4/23/1006/25
NEAS REFERENCE: WCP/EIA/0001607/2025
DATE: **24 JULY 2025**

The Board of Directors
Heineken Beverages SA (Pty) Ltd
PO Box 184
STELLENBOSCH
7600

Attention: Mr. M Bucholz

Tel.: (021) 809 7216
Email: Michael.Bucholz@heineken.com

Dear Sir

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT ("EIA") REGULATIONS, 2014: THE PROPOSED UPGRADE OF THE R44 AND N1 INTERCHANGE, KLAPMUTS

1. With reference to the above application, the Department hereby notifies you of its decision to **grant** Environmental Authorisation and **adopt** the Maintenance Management Plan, attached herewith, together with the reasons for the decision.
2. In terms of Regulation 4 of the EIA Regulations, 2014, you are instructed to ensure, within 14 days of the date of the Environmental Authorisation, that all registered interested and affected parties ("I&APs") are provided with access to 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 2025, which prescribes the appeal procedure to be followed. This procedure is summarised in the attached Environmental Authorisation.

Yours faithfully

MR. ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

Cc: (1) Mr. J Rose (Infinity Environmental (Pty) Ltd)

(2) Mr. R Lorio (SANRAL)

(3) Ms. V Stoffels (WCG: Department of Infrastructure)

(4) Mr. S van der Merwe (Stellenbosch Municipality)

(5) Ms. C Winter (Drakenstein Municipality)

(6) Mr. M. Mathaulula (DWS)

Email: jeremy@infinityenv.co.za

Email: Lorio@nra.co.za

Email: Vanessa.Stoffels@westerncape.gov.za

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Email: Cindy.Winter@drakenstein.gov.za

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REFERENCE: 16/3/3/1/B4/23/1006/25
NEAS REFERENCE: WCP/EIA/0001607/2025
ENQUIRIES: Samornay Smidt
DATE OF ISSUE: **24 JULY 2025**

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 (AS AMENDED): THE PROPOSED UPGRADE OF THE R44 AND N1 INTERCHANGE, KLAPMUTS

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 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the Preferred Alternative, as described in the Basic Assessment Report ("BAR"), dated 4 April 2025.

In terms of the NEMA, viz, the EIA Regulations, 2014 (Listing Notices 1 and 3 of 2014 in Government Gazette No. 40772 of 7 April 2017) the Competent Authority hereby adopts the Maintenance Management Plan for watercourse related maintenance activities along the R44/N1 interchange upgrade and its associated stormwater infrastructure on farm portions Groenfontein Annex RE/31/716, 52/716, 37/716; Farm 100/0, 101/0; Farm 1679; Farm RE/1293, 2/1293; Farm 1/758, 3/758; and Farm 2/759, 3/759, RE/1/759.

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

Heineken Beverages SA (Pty) Ltd
c/o Mr. M Bucholz
PO Box 184
STELLENBOSCH
7600

Tel.: (021) 809 7216

Email: Michael.Bucholz@heineken.com

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	Activities/Project Description
<p>EIA Regulations Listing Notice 1 of 2014 –</p> <p>Activity Number: 19</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><i>but excluding where such infilling, depositing, dredging, excavation, removal or moving—</i></p> <ul style="list-style-type: none"> <i>(a) will occur behind a development setback;</i> <i>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</i> <i>(c) falls within the ambit of activities 21 in this Notice, in which case that activities applies;</i> <i>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</i> <i>(e) where such development is related to the development of a port or harbour, in which case activities 26 in Listing Notice 2 of 2014 applies.</i> 	<p>The proposed upgrade of the R44/N1 Klapmuts interchange will require the movement of more than 10 cubic metres of soil and material in a watercourse as part of the upgrades to the stormwater infrastructure and road.</p>
<p>EIA Regulations Listing Notice 1 of 2014 –</p> <p>Activity Number: 56</p> <p><i>The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre—</i></p> <ul style="list-style-type: none"> <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><i>excluding where widening or lengthening occur inside urban areas.</i></p>	<p>The road will be widened by more than 6 metres.</p>
<p>EIA Regulations Listing Notice 3 of 2014 –</p> <p>Activity Number: 23</p> <p><i>The expansion of—</i></p> <ul style="list-style-type: none"> <i>(i) dams or weirs where the dam or weir is expanded by 10 square metres or more; or</i> 	<p>The stormwater infrastructure will be expanded by approximately 326m².</p>

<p>(ii) <i>infrastructure or structures where the physical footprint is expanded by 10 square metres or more;</i> <i>where such expansion occurs—</i></p> <p>(a) <i>within a watercourse;</i> (b) <i>in front of a development setback adopted in the prescribed manner; or</i> (c) <i>if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;</i></p> <p><i>excluding the expansion of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.</i></p> <p>i. <i>Western Cape</i></p> <p>i. <i>Outside urban areas:</i></p> <p>(aa) <i>A protected area identified in terms of NEMPAA, excluding conservancies;</i> (bb) <i>National Protected Area Expansion Strategy Focus areas;</i> (cc) <i>World Heritage Sites;</i> (dd) <i>Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</i> (ee) <i>Sites or areas listed in terms of an international convention;</i> (ff) <i>Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</i> (gg) <i>Core areas in biosphere reserves; or</i> (hh) <i>Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined.</i></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 that includes the listed activities as it relates to the development:

The preferred alternative for the proposed upgrade involves the construction of a double teardrop intersection, which consists of two at-grade roundabouts at the level of the R44, beneath the existing N1 viaduct (as indicated in the Site Plan attached as Annexure 2). The roundabouts will facilitate all on- and off-ramp movements without the need for signalisation. All off-ramps and on-ramps will be realigned and widened to accommodate the double teardrop design, as well as the additional lanes on the N1 on- and off-ramps. A wider road reserve is proposed to accommodate the widening of the roads at the teardrop intersection. The road upgrades will also include pedestrian sidewalks.

The existing box culvert located immediately south of the intersection under the R44 will be upgraded to a 3600mm x 2100mm box culvert, enclosing the entire open channel between the R44 and the N1. The new box culvert will tie into the existing 3100mm diameter pipe that runs beneath the N1 and conveys a tributary of the Klapmuts River, discharging at an instream dam on a farm immediately

northwest of the intersection. The existing pipe will be extended northward by 6m. New trapezoid drainage channels will also be constructed alongside the realigned ramps to provide for stormwater management.

C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken along the R44/N1 interchange which falls within the Cape Winelands District Municipality, approximately 2km northeast of the town of Klapmuts and approximately 12km southwest of the town of Paarl.

The SG21 digit codes are: C0550000000075800001
 C0550000000075800003
 C0550000000075900001
 C0550000000075900002
 C0550000000075900003
 C0550000000071600031
 C0550000000071600037
 C0550000000071600052
 C05500000000167900000
 C05500000000129300000
 C05500000000129300002
 C0550000000000000100
 C0550000000000000101

Co-ordinates:

Middle point co-ordinates			
Latitude (S)	33°	47'	54.82"
Longitude (E)	18°	52'	14.63"
Northernmost point on the R44			
Latitude (S)	33°	47'	47.57"
Longitude (E)	18°	52'	12.29"
Southernmost point on the R44			
Latitude (S)	33°	48'	2.33"
Longitude (E)	18°	52'	16.99"
Westernmost point on the N1			
Latitude (S)	33°	47'	57.28"
Longitude (E)	18°	52'	4.31"
Easternmost point on the N1			
Latitude (S)	33°	47'	54.39"
Longitude (E)	18°	52'	4.31"
Stormwater inlet for new box culvert			
Latitude (S)	33°	47'	58.16"
Longitude (E)	18°	52'	11.80"

Refer to Annexure 1: Locality Map and Annexure 2: Site Plan.

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

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Infinity Environmental (Pty) Ltd
 c/o Mr. J. Rose
 Private Bag X11
MOWBRAY

7705

Tel: 084 055 5678

Email: jeremy@infinityenv.co.za

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with and restricted to the Preferred Alternative, as described in the BAR dated 4 April 2025 on the site as described in Section C above and indicated in the Site Plan attached as Annexure 2.

2. The holder must commence with, and conclude, the listed activities within the stipulated validity period which this Environmental Authorisation is granted, or this Environmental Authorisation shall lapse and a new application for Environmental Authorisation must be submitted to the competent authority.

This Environmental Authorisation is granted for-

(a) A period of **ten (10) years** from the date of issue, during which period the holder must commence with the authorised listed activities.

(b) A period of **ten (10) years**, from the date the holder commenced with the authorised listed activities, during which period the authorised listed activities must be concluded.

3. 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.

4. 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

5. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction activities.

5.1 The notice must make clear reference to the site details and EIA Reference number given above.

5.2 The notice must also include proof of compliance with the following conditions described herein:

Conditions: 6, 7 and 11.

Notification and administration of appeal

6. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–
 - 6.1 notify all registered Interested and Affected Parties ("I&APs") of –
 - 6.1.1 the outcome of the application;
 - 6.1.2 the reasons for the decision as included in Annexure 3;
 - 6.1.3 the date of the decision; and
 - 6.1.4 the date when the decision was issued.
 - 6.2 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, 2025 (as amended) detailed in Section G below;
 - 6.3 draw the attention of all registered I&APs to the manner in which they may access the decision;
 - 6.4 provide the registered I&APs with:
 - 6.4.1 the name of the holder (entity) of this Environmental Authorisation,
 - 6.4.2 name of the responsible person for this Environmental Authorisation,
 - 6.4.3 postal address of the holder,
 - 6.4.4 telephonic and fax details of the holder,
 - 6.4.5 e-mail address, if any, of the holder, and
 - 6.4.6 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 2025 National Appeals Regulations (as amended).
7. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notified the registered I&APs of this decision. 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 i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

Management of activities

8. The draft Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.
9. The Maintenance Management Plan ("MMP") adopted as part of this Environmental Authorisation must be implemented.
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") before commencement of any land clearing or construction activities to ensure compliance with the EMPr and the conditions contained herein.

12. The ECO must report on compliance with the EMPr to this Department and the relevant authorities, in writing, every second month during the construction phase.
13. A copy of the Environmental Authorisation, EMPr, MMP, 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.
14. Access to the site referred to in Section C 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

15. In terms of Regulation 34 of the NEMA EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation and the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an **independent person** (other than the ECO appointed in terms of condition 11 above or the appointed Environmental Assessment Practitioner) and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014 (as amended).

The holder must undertake an environmental audit and submit an Environmental Audit Report annually to the Department during the construction phase. A final Environmental Audit Report must be submitted to the Department within three months of the completion of the construction phase.

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

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 paleontological 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 paleontologist 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.

18. The relevant requirements with respect to occupational health and safety must be adhered to at all times.

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 activities.
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 the listed activities within the period referred to in Condition 2, this Environmental Authorisation shall lapse for those activities, 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 (as amended) must be submitted.

Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the Competent Authority must only be notified of such changes.

5. The manner and frequency for updating the EMPr is as follows:

Amendments to the EMPr must be done in accordance with Regulations 35 to 37 of the EIA Regulations 2014, (as amended) or any relevant legislation that may be applicable at the time.

G. APPEALS

Appeals must comply with the National Appeal Regulations, 2025 (Government Notice No. R. 5985 in Government Gazette No. 52269 of 13 March 2025). Please note the provisions of Regulation 1 (2) & (3) of the National Appeal Regulations 2025 when calculating the period of days.

1. The holder (applicant) of this decision must submit an appeal to the Appeal Administrator, any registered Interested and Affected Parties (I&AP's), and the decision maker (Competent Authority who issued the decision) within **20 calendar days** from the date this decision was sent by the decision maker.
2. The I&AP's (not the holder of this decision) must submit an appeal to the Appeal Administrator, the holder (applicant) of the decision, and the decision maker within **20 calendar days** from the date this decision was sent to the registered I&AP's by the holder (applicant) of the decision.
3. All appeals submitted must:
 - a. be in writing in the appeal form obtainable from the Departmental website;

- b. include supporting documents referred to in the appeal; and
 - c. include proof of payment of the prescribed non-refundable appeal fee, if prescribed.
4. The holder (applicant) of the decision must:
- a. notify registered I&AP's and affected organs of state of any appeal received, and make the appeal available to them, within 5 calendar days after the 20-day appeal period ends.
 - b. Submit proof of this notification to the Appeal Administrator within **5 calendar days** after sending the last notification.
5. The applicant, where applicable, the decision-maker, or any person notified under regulation 4 of the National Appeal Regulations, 2025 may submit a Responding Statement within **20 calendar days** from the date they received the appeal, in the form obtainable from the Department website to the Appeal Administrator and to the appellant, where the appellant is not the applicant.
6. Appeals, Responding Statements and supporting documents must be submitted to the Appeal Administrator by means of one of the following methods:
- a. **By e-mail:**
DEADP.Appeals@westerncape.gov.za or
 - b. **By hand** where that person submitting does not hold an electronic mail account:
Attention: Mr Marius Venter
Room 809, 8th Floor Utilitas Building,
1 Dorp Street, Cape Town, 8001

Note: You are also requested to submit an electronic copy (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Administrator via email or to the address listed above.

A prescribed appeal form, responding statement form as well as assistance regarding the appeal processes is obtainable from the relevant website of the appeal authority: <http://www.westerncape.gov.za/eadp> or the office of the Minister at: Tel. (021) 483 3721 or email DEADP.Appeals@westerncape.gov.za.

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)

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

DATE OF DECISION: 24 JULY 2025

Cc: (1) Mr. J Rose (Infinity Environmental (Pty) Ltd)
(2) Mr. R Lorio (SANRAL)
(3) Ms. V Stoffels (WCG: Department of Infrastructure)
(4) Mr. S van der Merwe (Stellenbosch Municipality)
(5) Ms. C Winter (Drakenstein Municipality)
(6) Mr. M. Mathaulula (DWS)

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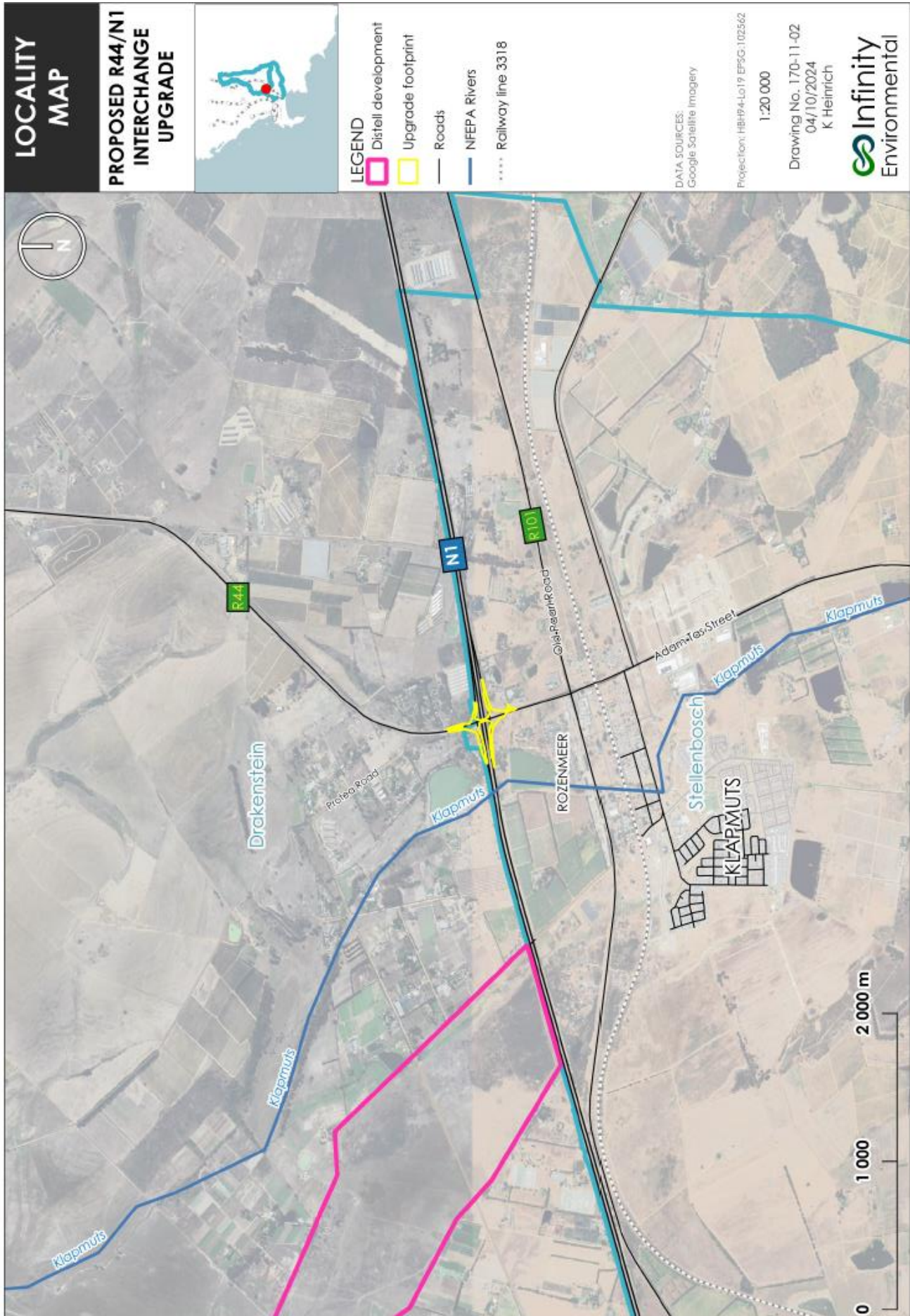
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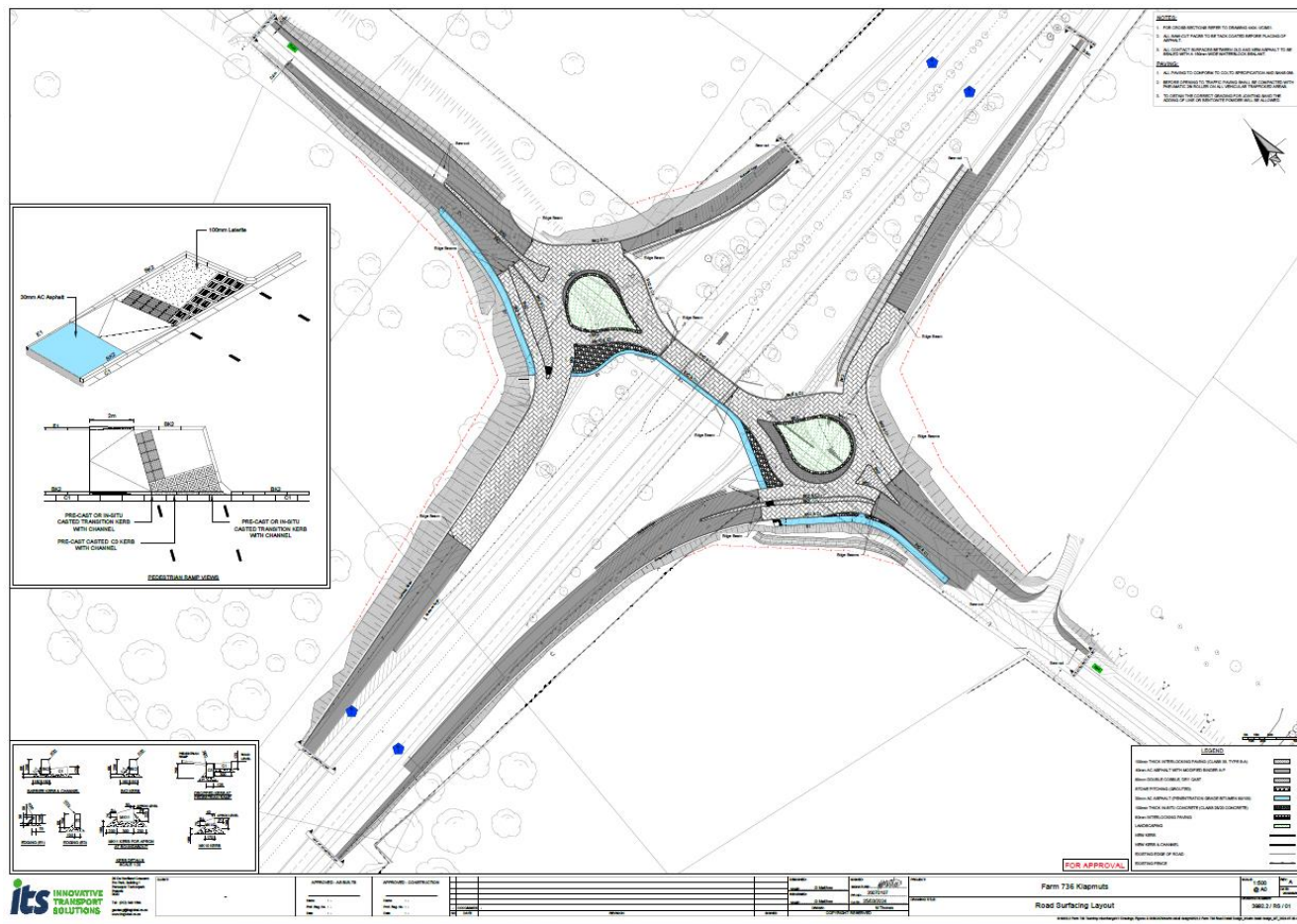
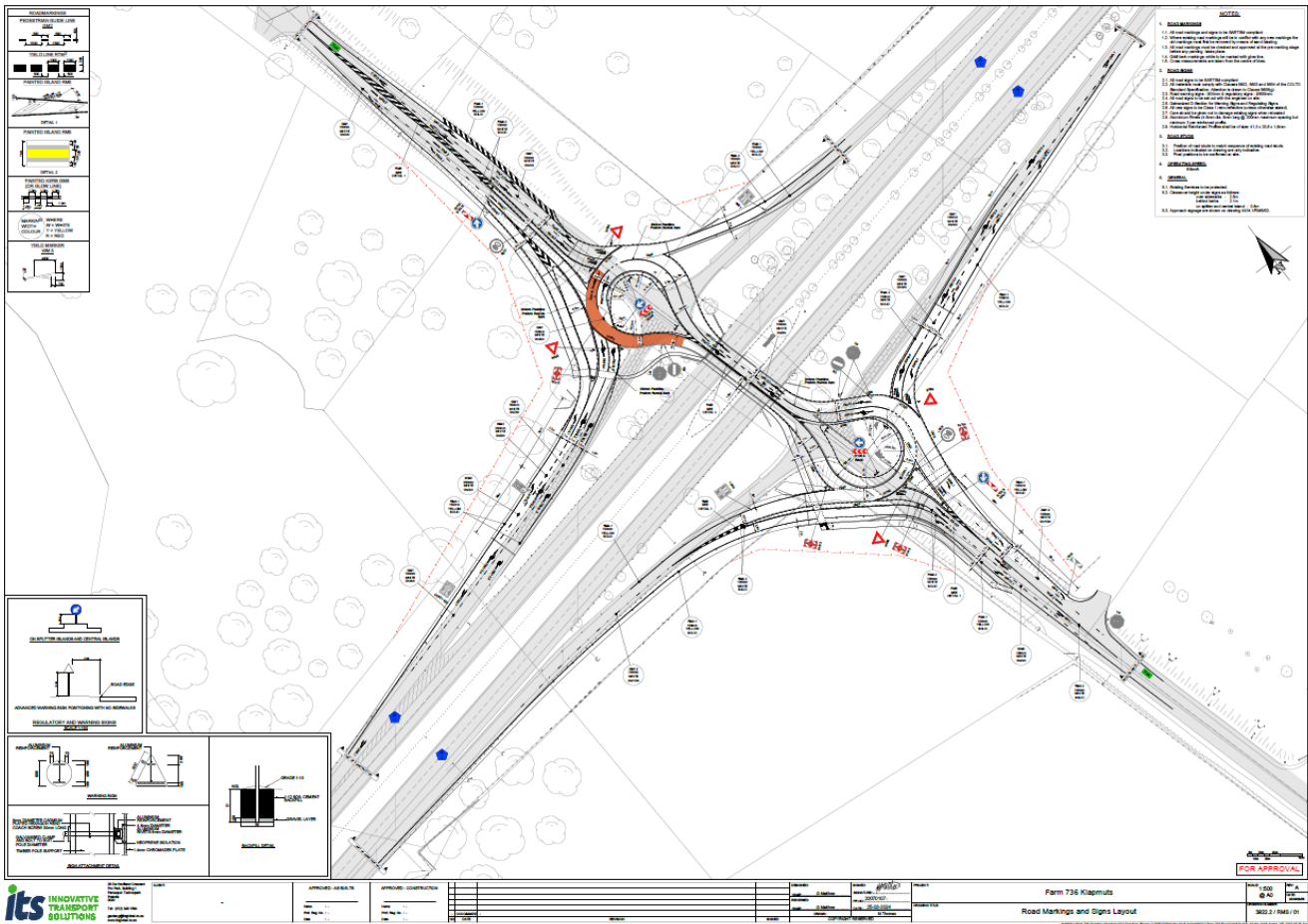
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ANNEXURE 1: LOCALITY PLAN



ANNEXURE 2: SITE PLAN





ANNEXURE 3: 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 February 2025 and the EMPr submitted together with final BAR dated 4 April 2025.
- 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 BAR dated 4 April 2025; and
- e) The balancing of negative and positive impacts and proposed mitigation measures.

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;
- fixing notice boards at the site where the listed activities are to be undertaken and public areas on 6 February 2025;
- the placing of a newspaper advertisement in the 'Eikestad nuus' on 6 February 2025;
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities are to be undertaken, the municipality and ward councillor, and the various Organs of State having jurisdiction in respect of any aspect of the listed activities on 6 February 2025; and
- circulating the in-process draft BAR to I&APs from 6 February 2025.

The Department is satisfied that the Public Participation Process that was followed met the minimum legal requirements, and 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

An iterative design process has been conducted to arrive at the preferred design alternative. Two layouts were identified for the proposed interchange: (1) a signalised diamond, and (2) a double teardrop configuration. It was determined in a study by Innovative Transport Solutions (ITS Engineers) dated July 2023, that the double teardrop interchange configuration would perform better than the signalised diamond configuration. Thus, the signalised diamond alternative was discarded, and the teardrop configuration was preferred. There is no significant difference in the environmental impact between the signalised interchange and teardrop layout designs, as the potential impacts on the receiving environment can be mitigated to an acceptable level.

Preferred Alternative (Herewith authorised)

The preferred alternative for the proposed upgrade involves the construction of a double teardrop intersection, which consists of two at-grade roundabouts at the level of the R44, beneath the existing N1 viaduct. The roundabouts will facilitate all on- and off-ramp movements without the need for signalisation. All off-ramps and on-ramps would be realigned and widened to accommodate the double teardrop design, as well as additional lanes on the N1 on- and off-ramps. A wider road reserve is proposed to accommodate the widening of the roads at the teardrop intersection. The road upgrades will also include pedestrian sidewalks.

The existing box culvert located immediately south of the intersection under the R44 will be upgraded to a 3600mm x 2100mm box culvert, enclosing the entire open channel between the R44 and the N1. The new box culvert will tie into the existing 3100mm diameter pipe that runs beneath the N1 and conveys a tributary of the Klapmuts River, discharging at an instream dam on a farm immediately northwest of the intersection. The existing pipe will be extended northward by 6m as well. New trapezoidal drainage channels will also be constructed alongside the realigned ramps to provide for stormwater management.

This alternative is the preferred alternative, as it maximises the positive benefits of upgrading the interchange (improved level of service), while minimising the cost of construction.

"No-Go" Alternative

The No-Go alternative would likely result in the N1/R44 (MR27) Northern Terminal intersections continuing to experience capacity constraints. The already-approved mixed-use development on Farm RE/736 and future development are expected to exacerbate existing traffic constraints. The no-go alternative is therefore not preferred, since it will not address the issues with regards to the ongoing congestion and road safety concerns.

3. Impact Assessment and Mitigation measures

3.1 Activities need and desirability

The proposed expansion of the R44/N1 interchange is a critical infrastructure intervention, necessitated by the growing traffic demand in the Klapmuts North area. This demand stems primarily from the already-authorised mixed-use development on Farm 736/RE, which is expected to significantly increase vehicular volumes. The interchange upgrade is therefore essential to ensure safe and efficient traffic flow and to prevent future congestion. The current road and stormwater infrastructure are not sufficient to handle this future demand, and without intervention, congestion and safety concerns are likely to worsen.

Upgrading the interchange will help ensure that the road network remains safe, efficient, and able to support both existing and future users. The need for infrastructure improvements in this area has been recognized by both the South African National Roads Agency Limited ("SANRAL") and the Western Cape Government, as the project involves both a national road (N1) and a provincial road (R44). Furthermore, the preferred development proposal was informed by specialist input and comments received during the public participation process.

3.2 Traffic Impacts

Heineken obtained environmental authorisation for the development and operation of a new mixed-use development on Farm 736, Klapmuts North. The TIA conducted as part of the EIA process for the mixed-use development identified that the R44/N1 interchange should be upgraded to ensure it can operate at acceptable levels of service. Thus, this project is proposed in support of and compliance with the EA granted for the mixed-use development.

3.3 Biophysical Impacts

The site is mapped to contain Swartland Alluvium Fynbos and Swartland Granite Renosterveld, both classified as endangered vegetation types. However, the site has been transformed following the development of the road and surrounding commercial and agricultural land uses. Based on the Botanical Compliance Statement dated 23 October 2024, compiled by Nick Helme Botanical Surveys, the vegetation in the study area is heavily degraded, and totally dominated by invasive alien species. The entire study area is deemed to be of Very Low or Low botanical sensitivity. No species belonging to the Swartland Alluvium Fynbos or the Swartland Granite Renosterveld vegetation type were identified on site and no plant Species of Conservation Concern would be lost to the proposed development. The weedy indigenous bulb *Oxalis pes-caprae* is common but is not representative of the mapped ecosystems. No other indigenous species were evident, and indigenous plant diversity is thus deemed to be Very Low. As there is limited natural vegetation in the target area, the construction phase botanical impact associated with the proposed development would be negligible and is rated as being of Very Low negative botanical significance (before and after mitigation). The proposed development is therefore deemed acceptable from a botanical impact perspective.

The section of the Klapmuts River Tributary which flows beneath the interchange can be categorised as a lower foothill river. Much of the surrounding land adjacent to the river consists of previously cultivated areas. The Klapmuts River Tributary is currently in a seriously to critically modified ecological condition and of Low ecological importance. The ecological state of the river for much of the river system within the study area is considered to be largely modified. Invasive shrubs and grasses have invaded the river channel and banks. Sedimentation and erosion within the river channel are also significant due to ongoing disturbance of the riverbanks and the lack of suitable riparian vegetation. Many instream and off-channel dams have also severely modified the natural flow within the river system. Stormwater runoff from the surrounding urban area as well as from Klapmuts Wastewater Treatment Works ("WWTW") also impacts the water quality of the Klapmuts River and its tributaries. Within the current interchange, the stream channel is largely within a concrete channel and the stream has been diverted and piped under the R44 and N1. Significant habitat and flow modifications have resulted in the loss of diversity and aquatic habitats and species. Functionally, the watercourse has been reduced to a stormwater furrow at the site. In terms of the potential aquatic ecosystem and aquatic habitat impacts, the watercourse is already significantly modified as a result of the existing interchange and the agricultural activities, instream dams and the railway and road bridge structures in the river.

Based on the findings of the Aquatic Compliance Statement dated March 2025, compiled by Toni Belcher, the Klapmuts Tributary at the N1 Interchange is currently in a seriously to critically modified ecological condition and of low ecological importance. It is however recommended that the river condition be improved where possible through the removal of alien vegetation and revegetation of the watercourse upstream and downstream of the interchange with suitable local indigenous plants. While the roadworks will result in further aquatic habitat loss, these impacts are deemed to be of low negative significance with the implementation of mitigation measures. The impacts of the proposed activities are thus expected to be limited and can be mitigated to an acceptable level. The identified freshwater impacts associated with the proposed development can be reduced to a Low to Very Low negative significance with the implementation of recommended mitigation measures. At CapeNature's request, conservation buffers have been included at 10m around the Uitkoms Dams and 15m around the Klapmuts Tributary that flows across the site, while leaving working space around the proposed new footprint of the interchange. These conservation buffers aim to protect the aquatic biodiversity features on and surrounding the site, albeit of low sensitivity and conservation concern. The proposed development is therefore deemed acceptable from a freshwater impact perspective. The recommended mitigation measures have been incorporated into the preferred alternative and the project's EMP.

Based on the specialist determination, the proposed works would fall within the ambit of the General Authorisation for Section 21(c) and (i) water uses. An application for a Water Use Licence Authorisation ("WULA") in terms of the National Water Act, 1998 (Act 38 of 1998), that also considers the watercourse related impacts, is underway with the Department of Water and Sanitation.

Furthermore, a MMP has also been compiled to address routine maintenance activities taking place in the affected stretch of the watercourse. The maintenance of the structure authorised in this Environmental Authorisation forms part of this MMP. It must be noted that the accepted maintenance activities only relate to the activities described in the MMP. Should any new activities and associated infrastructure, not included in the MMP, require maintenance and if any of the applicable listed activities are triggered, an Environmental Authorisation must be obtained prior to the undertaking of such activities. It remains the responsibility of the proponent to determine if any other listed activities is triggered and to ensure that the necessary Environmental Authorisation is obtained.

The fact that the MMP is adopted by the Competent Authority does not absolve the applicant from its general "duty of care" set out in Section 28(1) of the NEMA, which states that *"Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment."* (Note: When interpreting their "duty of care" responsibility, cognisance must be taken of the principles of sustainability contained in Section 2 of NEMA).

Negative Impacts:

- The development will result in aquatic habitat loss and disturbance, flow and water quality impacts and terrestrial vegetation loss. The biophysical impacts and potential operational phase impacts will be mitigated to an acceptable level through the implementation of the preferred alternative, which has been informed by specialist input and comments received during the public participation process.

- Construction phase impacts associated with the development are likely to be present, including traffic impacts and elevated noise and dust levels. These impacts will be of temporary duration, and mitigation measures have been incorporated into the EMPr for implementation during the construction phase.

Positive impacts:

- The proposed upgrades will address traffic congestion and road safety, while providing a needed investment in public infrastructure (upgrading of roads and stormwater systems).
- It will also provide temporary employment opportunities during the construction phase and during future maintenance activities.

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 activities 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 activities can be mitigated to acceptable levels.

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