



**REFERENCE:** 16/3/1/1/B4/45/1005/13  
**NEAS REFERENCE:** WCP/EIA/0001162/2013  
**ENQUIRIES:** Ms. Samornay Smidt  
**DATE OF ISSUE:** 2018-03-29

The Head of Department  
Western Cape Government: Department of Transport and Public Works  
P.O. Box 2603  
**CAPE TOWN**  
8000

**Attention: Mr. M Watters**

Tel: (021) 483 2203  
Fax: (021) 483 2261

Dear Sir

**APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT AMENDMENT REGULATIONS, 2010 AND ENVIRONMENTAL ASSESSMENT REGULATIONS, 2014 (AS AMENDED): PROPOSED IMPROVEMENTS TO THE R44 BETWEEN SOMERSET WEST AND STELLENBOSCH ON ERVEN 169, 177, 178, 211, REMAINDER OF FARM NO. 537, FARM NO. 537/6, 537/7, 537/13, 537/18 AND 537/20, REMAINDER OF FARM NO. 538, REMAINDER, FARM 539/1 AND PORTION 2 OF FARM NO. 540, STELLENBOSCH**

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

#### **ENVIRONMENTAL AUTHORISATION**

#### **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") Amendment Regulations, 2010, and EIA Regulations, 2014 (as amended), the competent authority herewith **grants environmental authorisation** to the applicant to undertake the list of activities specified in section B below with respect to the Preferred Alternatives, described in the Basic Assessment Report ("BAR") dated November 2017.

The granting of this environmental authorisation is subject to compliance with the conditions set out in section E below.

**A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION**

Western Cape Government: Department of Transport and Public Works

c/o Malcolm Watters

P.O. Box 2603

**CAPE TOWN**

8000

Tel: (021) 483 2203

Fax: (021) 483 2261

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

**B. LIST OF ACTIVITIES AUTHORISED**

<b>EIA Regulations, 2010, Listed Activities</b>	<b>EIA Regulations, 2014, Listed Activities</b>
Government Notice No. R544 of 18 June 2010 –	Government Notice No. 327 of 7 April 2017 –
<b>Activity Number: 11</b>	<b>Activity Number: 12</b>
<p>The construction of:</p> <ul style="list-style-type: none"> <li>(i) canals;</li> <li>(ii) channels;</li> <li>(iii) bridges;</li> <li>(iv) dams;</li> <li>(v) weirs;</li> <li>(vi) bulk storm water outlet structures;</li> <li>(vii) marinas;</li> <li>(viii) jetties exceeding 50 square metres in size;</li> <li>(ix) slipways exceeding 50 square metres in size;</li> <li>(x) buildings exceeding 50 square metres in size; or</li> <li>(xi) infrastructure or structures covering 50 square metres or more</li> </ul> <p>where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p>	<p>The development of -</p> <ul style="list-style-type: none"> <li>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or</li> <li>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</li> </ul> <p>where such development occurs -</p> <ul style="list-style-type: none"> <li>(a) within a watercourse;</li> <li>(b) in front of a development setback; or</li> <li>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; -</li> </ul> <p>excluding -</p> <ul style="list-style-type: none"> <li>(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</li> <li>(bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</li> <li>(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</li> <li>(dd) where such development occurs within an urban area;</li> <li>(ee) where such development occurs within existing roads, road reserves or railway line reserves; or</li> <li>(ff) the development of temporary infrastructure or structures where such infrastructure or</li> </ul>

	structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.
<p>Government Notice No. R544 of 18 June 2010 –</p> <p><b>Activity Number: 18</b></p> <p>The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from:</p> <ul style="list-style-type: none"> <li>(i) a watercourse;</li> <li>(ii) the sea;</li> <li>(iii) the seashore;</li> <li>(iv) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater-</li> </ul> <p>but excluding where such infilling, depositing, dredging, excavation, removal or moving</p> <ul style="list-style-type: none"> <li>(i) is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or</li> <li>(ii) occurs behind the development setback line.</li> </ul>	<p>Government Notice No. 327 of 7 April 2017 -</p> <p><b>Activity Number: 19</b></p> <p>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse -</p> <p>but excluding where such infilling, depositing, dredging, excavation, removal or moving -</p> <ul style="list-style-type: none"> <li>(a) will occur behind a development setback;</li> <li>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</li> <li>(c) falls within the ambit of activities 21 in this Notice, in which case that activities applies,</li> <li>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</li> <li>(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.</li> </ul>
<p>Government Notice No. R544 of 18 June 2010 –</p> <p><b>Activity Number: 39</b></p> <p>The expansion of</p> <ul style="list-style-type: none"> <li>(i) canals;</li> <li>(ii) channels;</li> <li>(iii) bridges;</li> <li>(iv) weirs;</li> <li>(v) bulk storm water outlet structures;</li> <li>(vi) marinas;</li> </ul> <p>within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, where such expansion will result in an increased development footprint but excluding where such expansion will occur behind the development setback line.</p>	<p>Government Notice No. 327 of 7 April 2017 -</p> <p><b>Activity Number: 48</b></p> <p>The expansion of—</p> <ul style="list-style-type: none"> <li>(i) canals where the canal is expanded by 100 square metres or more in size;</li> <li>(ii) channels where the channel is expanded by 100 square metres or more in size;</li> <li>(iii) bridges where the bridge is expanded by 100 square metres or more in size;</li> <li>(iv) dams, where the dam, including infrastructure and water surface area, is expanded by 100 square metres or more in size;</li> <li>(v) weirs, where the weir, including infrastructure and water surface area, is expanded by 100 square metres or more in size;</li> <li>(vi) bulk storm water outlet structures where the bulk storm water outlet structure is expanded by 100 square metres or more in size; or</li> <li>(vii) marinas where the marina is expanded by 100 square metres or more in size;</li> </ul>

	<p>where such expansion occurs -</p> <ul style="list-style-type: none"> <li>(a) within a watercourse;</li> <li>(b) in front of a development setback; or</li> <li>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;</li> </ul> <p>excluding—</p> <ul style="list-style-type: none"> <li>(aa) the expansion of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</li> <li>(bb) where such expansion activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</li> <li>(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</li> <li>(dd) where such expansion occurs within an urban area; or</li> <li>(ee) where such expansion occurs within existing roads, road reserves or railway line reserves.</li> </ul>
<p>Government Notice No. R544 of 18 June 2010 –</p> <p><b>Activity Number: 47</b></p> <p>The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre -</p> <ul style="list-style-type: none"> <li>(i) where the existing reserve is wider than 13,5 meters; or</li> <li>(ii) where no reserve exists, where the existing road is wider than 8 metres –</li> </ul> <p>excluding widening or lengthening occurring inside urban areas</p>	<p>Government Notice No. 327 of 7 April 2017 -</p> <p><b>Activity Number: 56</b></p> <p>The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre—</p> <ul style="list-style-type: none"> <li>(i) where the existing reserve is wider than 13,5 meters; or</li> <li>(ii) where no reserve exists, where the existing road is wider than 8 metres; excluding where widening or lengthening occur inside urban areas.</li> </ul>
<p>Government Notice No. R546 of 18 June 2010 –</p> <p><b>Activity Number: 19</b></p> <p>The construction of a road wider than 4 metres with a reserve less than 13.5 metres.</p> <p>(d) In Western Cape:</p> <ul style="list-style-type: none"> <li>i. In an estuary;</li> <li>ii. All areas outside urban areas;</li> <li>iii. In urban areas: <ul style="list-style-type: none"> <li>(aa) Areas zoned for use as public open space within urban areas; and</li> <li>(bb) Areas designated for conservation</li> </ul> </li> </ul>	<p>Government Notice No. 324 of 7 April 2017 -</p> <p><b>Activity Number: 18</b></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. Western Cape</p> <ul style="list-style-type: none"> <li>i. Areas zoned for use as public open space or equivalent zoning;</li> <li>ii. All areas outside urban areas: <ul style="list-style-type: none"> <li>(aa) Areas containing indigenous vegetation;</li> <li>(bb) Areas on the estuary side of the</li> </ul> </li> </ul>

<p>use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose.</p>	<p>development setback line or in an estuarine functional zone where no such setback line has been determined; or</p> <p>iii. Inside urban areas:</p> <p>(aa) Areas zoned for conservation use; or</p> <p>(bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.</p>
<p>Government Notice No. R546 of 18 June 2010 –</p> <p><b>Activity Number: 24</b></p> <p>The expansion of</p> <p>(a) jetties where the jetty will be expanded by 10 square metres in size or more;</p> <p>(b) slipways where the slipway will be expanded by 10 square metres or more;</p> <p>(c) buildings where the buildings will be expanded by 10 square metres or more in size; or</p> <p>(d) infrastructure where the infrastructure will be expanded by 10 square metres or more</p> <p>where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p> <p>- Geographical areas in the Western Cape province to which this activity applies, include:</p> <p>(e) i. In an estuary;</p> <p>ii. Outside urban areas, in:</p> <p>(aa) A protected area identified in terms of NEMPAA, excluding conservancies;</p> <p>(bb) National Protected Area Expansion Strategy Focus areas;</p> <p>(cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p> <p>(dd) Sites or areas identified in terms of an International Convention;</p> <p>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>(ff) Core areas in biosphere reserves;</p>	<p>This listed activity is not similarly listed in terms of the EIA Regulations, 2014 (as amended) for the proposal as the applicable geographical areas are not triggered.</p>

<p>(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;</p> <p>(hh) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined.</p> <p>iii. Inside urban areas:</p> <p>(aa) Areas zoned for use as public open space;</p> <p>(bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose.</p>	
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The abovementioned list is hereinafter referred to as, "**the listed activities**".

The applicant is herein authorised to undertake the following alternative related to the listed activities:

The project scheme consists of the following:

- Closing all median openings along the R44 between Steynsrust Road and Webersvallei Road;
- Providing a grade-separated U-turn facility at Steynsrust Bridge;
- Providing a left in/left out access to Bredell Road;
- Providing aboveground grade-separated turning facilities at Winery Road and Annandale Road.
- Providing a turning facility close to Jamestown by accommodating U-turn movements at the Webersvallei Road signalised intersection.
- Improving at-grade signalised intersections within the Stellenbosch municipal area between Webersvallei Road and the end of the project at Van Rheeде Street. This would entail road widening to provide turning lanes and three through lanes in each direction at the following five intersections:
  - o Webersvallei Road (km 29.6);
  - o Techno Park Road (km 30.3);
  - o Blaauwklippen Road (km 31.2);
  - o Trumali Road (km 32.0); and
  - o Van Rheeде Road (km 32.9).
- Additional safety measures:
  - o Implementing average speed over distance (ASOD) control; and
  - o Accommodating pedestrian and cycling facilities in the interchange design.

### C. PROPERTY DESCRIPTION AND LOCATION

The listed activities will take place along the R44 between Somerset West and Stellenbosch.

Co-ordinates:

Intersections	Latitude (S):	Longitude (E):
Steynsrust Road	34° 02' 57.89"	18°49'34.05"
Bredell Road	34° 02' 14.56"	18° 49' 26.22"
Winery Road	34° 01' 30.62"	18° 49' 12.57"
Annandale Road	33° 59' 48.76"	18° 49' 34.32"
Webersvallei Road	33° 58' 29.94"	18° 50' 30.93"
Techno Park Road	33° 58' 9.00"	18° 50' 39.29"
Blaauwklippen Road	33° 57' 47.11"	18° 51' 1.91"
Trumali Street	33° 57' 24.55"	18° 51' 17.67"
Van Rhee de Street	33° 56' 54.19"	18° 51' 15.12"

hereinafter referred to as, "**the site**".

### D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

CCA Environmental (Pty) Ltd  
c/o Mr Jonathan Crowther / Ms Ena de Villiers  
P. O. Box 10145  
**CALEDON SQUARE**  
7905

Tel: (021) 461 1118/9

Fax: (021) 461 1120

### E. CONDITIONS OF AUTHORISATION

1. This environmental authorisation is valid for a period of **ten years** from the date of issue. The holder must commence with the listed activities within the said period or this environmental authorisation lapses 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.
2. The listed activities, including site preparation, may not commence within 20 (twenty) calendar days from the date the applicant notified the registered interested and affected parties ("I&APs"). In the event that an appeal is lodged with the competent authority, the effect of this environmental authorisation is suspended until such time as the appeal is decided.

3. The applicant must in writing, within 12 (twelve) calendar days of the date of this decision and in accordance with regulation 10(2)–
  - 3.1 notify all registered Interested and Affected Parties ("I&AP's") of –
    - 3.1.1 the outcome of the application;
    - 3.1.2 the reasons for the decision as included in Annexure 1;
    - 3.1.3 the date of the decision; and
    - 3.1.4 the date of issue of the decision;
  - 3.2 draw the attention of all registered I&AP's to the fact that an appeal may be lodged against the decision in terms of Chapter 7 of the EIA Regulations, 2010 detailed in section F below;
  - 3.3 draw the attention of all registered I&AP's to the manner in which they may access the decision;
  - 3.4 publish a notice in the newspapers contemplated in Regulation 54(2)(c) and (d), and which newspaper was used for the placing of advertisements as part of the Public Participation Process ("PPP"), that–
    - 3.4.1 informs all I&AP's of the decision;
    - 3.4.2 informs all I&AP's where the decision can be accessed;
    - 3.4.3 informs all I&AP's that an appeal may be lodged against the decision in terms of Chapter 7 of the EIA Regulations, 2010; and
  - 3.5 Provide the registered I&APs with:
    - 3.5.1 The name of the holder (entity) of this Environmental Authorisation;
    - 3.5.2 The name of the responsible person for this Environmental Authorisation;
    - 3.5.3 The postal address of the holder;
    - 3.5.4 The telephonic and fax details of the holder; and
    - 3.5.5 The e-mail address if any.
4. Seven calendar days' notice, in writing, must be given to the competent authority before commencement of construction activities.
  - 4.1. The notice must make clear reference to the site details and EIA Reference number given above.
  - 4.2. The notice must also include proof of compliance with the following conditions described herein:  
Conditions: 2, 3, 12 and 17.
5. The holder is 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.



6. The applicant must notify the competent authority in writing, within 24 hours thereof if any condition herein stipulated is not being complied with.
7. The draft Environmental Management Programme ("EMP") submitted as part of the application for environmental authorisation is hereby approved and must be implemented.

The Maintenance Management Plan ("MMP") submitted as part of the application for environmental authorisation is herewith adopted in terms of the NEMA EIA Regulations, 2010 relating to GN No. R. 544, Activity 18 and the NEMA EIA Regulations, 2014 (as amended) relating to Activity 19 of GN No. R. 327.

The EMP and MMP must be included in all contract documentation for all phases of implementation.

Should any amendments to the EMP or MMP be required before an audit is required in terms of this environmental authorisation, the applicant must:

- o notify the competent authority of its intention to amend the EMP at least 60 days prior to the submission of the application for amendment to the EMP;
  - o obtain comment from potential I&APs, including the competent authority, by using any of the methods provided for in the NEMA for a period of at least 30 days; and
  - o submit the amended EMP to the competent authority for approval within 60 days of inviting comments on the proposed amendments.
8. A copy of the environmental authorisation, EMP and MMP must be kept at the site where the listed activities will be undertaken. Access to the site referred to in section C above must be granted and, the environmental authorisation and EMP 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. The environmental authorisation and EMP must also be made available for inspection by any employee or agent of the applicant who works or undertakes work at the site.
  9. The applicant 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**, save that such application for amendment shall not include the personal details of the holder of the environmental authorisation.
    - 9.1. Where an amendment relates to the change of ownership or transfer of rights and obligations, the applicant must:
      - 9.1.1. submit an amendment application to the competent authority stating that he/she wishes the rights and obligations contained herein to be transferred, and including (a) confirmation that

the environmental authorisation is still in force (i.e. that the validity period has not yet expired or the activity/ies was/were lawfully commenced with); (b) the contact details of the person who will be the new holder; (c) the reasons for the transfer; and (d) an originally signed letter from the proposed new holder acknowledging the rights and obligations contained in the environmental authorisation and indicating that he/she has the ability to implement the mitigation and management measures and to comply with the stipulated conditions.

9.1.2. The competent authority will issue an amendment to the new holder either by way of a new environmental authorisation/s or an addendum to the existing environmental authorisation/s if the transfer is found to be appropriate.

9.2. Any changes to, or deviations from the scope of the description set out in Section B above must be approved, in writing, by the competent authority before such changes or deviations may be implemented. In assessing whether to grant such approval or not, the competent authority 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 to apply for further authorisation in terms of the applicable legislation.

10. Non-compliance with a condition of this environmental authorisation and EMP may result in suspension of this environmental authorisation and may render the holder liable for criminal prosecution.
11. Notwithstanding this environmental authorisation, the holder must comply with any other statutory requirements that may be applicable to the undertaking of the listed activities.
12. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, for the construction phase of implementation before commencement of any land clearing or construction activities to ensure compliance with the EMP and the conditions contained herein.
13. An integrated waste management approach, which is based on waste minimisation and incorporates reduction, recycling, re-use and disposal, where appropriate, must be employed. Any solid waste must be disposed of at a landfill licensed in terms of the applicable legislation.
14. No surface or ground water may be polluted due to any actions on the site. The applicable requirements with respect to relevant legislation pertaining to water must be met.
15. The applicable requirements with respect to relevant legislation pertaining to occupational health and safety must be adhered to.

16. Should any heritage remains be exposed during excavations or any actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape (in accordance with the applicable legislation). 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: archaeological remains (including fossil bones and fossil shells); 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; rock art and rock engravings; shipwrecks; and graves or unmarked human burials.

A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

17. The construction area must be clearly demarcated and strictly observed to ensure all construction activities and machinery is limited to the disturbance footprint of the site.

## **F. APPEALS**

Appeals must comply with the provisions contained in Chapter 7 of the EIA Amendment Regulations, 2010.

### **1. An appellant must –**

- 1.1. submit a notice of intention to appeal to the Minister, within 20 (twenty) calendar days of the date of the decision;

- 1.1.1 If the appellant is an applicant, the appellant must provide each person and organ of state which was a registered interested and affected party in relation to the applicant's application, within 10 days of having submitted the notice with the Minister, with—

- (a) a copy of the notice lodged with the Minister; and
- (b) a notice indicating that the appeal submission will be made available on the day of lodging it with the Minister and where and for what period the appeal submission will be available for inspection by such person or organ of state.

- 1.1.2 If the appellant is a person other than an applicant, the appellant must provide the applicant, within 10 days of having lodged the notice with the Minister, with—

- (a) a copy of the notice lodged with the Minister; and
- (b) a notice indicating where and for what period the appeal submission will be available for inspection by the applicant.

- 1.2. submit the appeal within 30 (thirty) calendar days after the lapsing of the 20 (twenty) calendar days contemplated in regulation 60(1), for the submission of the notice of intention to appeal; and
  - 1.3 that a responding statement may be made on the appeal within 30 (thirty) calendar days from the date the appeal submission was lodged with the Minister; and
  - 1.4 if a respondent introduces any new information not dealt with in the appeal submission of the appellant, the appellant is entitled to submit an answering statement to such new information to the Minister within 30 days of receipt of the responding statement.
2. A person, organ of state or applicant who submits a responding or answering statement in terms of regulation 63 must within 10 (ten) calendar days of having submitted the responding or answering statement, serve a copy of the statement on the other party.
  3. All notice of intention to appeal and appeal forms must be submitted in hard copy by means of one of the following methods:  
  
By post: Western Cape Ministry of Local Government, Environmental Affairs and Development Planning  
Private Bag X9186  
CAPE TOWN  
8000  
  
By facsimile: (021) 483 4174; or  
  
By hand: Attention: Mr Jaap de Villiers (Tel: 021-483 3721)  
Room 809  
8<sup>th</sup> Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001  
  
**NOTE:** 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](mailto:Jaap.DeVilliers@westerncape.gov.za).
  4. A prescribed notice of intention to appeal form and appeal form as well as assistance regarding the appeal processes is obtainable from the office of the Minister at: Tel. (021) 483 3721, E-mail [Jaap.DeVilliers@westerncape.gov.za](mailto:Jaap.DeVilliers@westerncape.gov.za) or URL <http://www.westerncape.gov.za/eadp>.

## G. 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. HENRI FORTUIN**  
**DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 2)**

DATE OF DECISION: 29-3-18

Cc: (1) Mr R Tyndall (Kantey & Templer Consulting Engineers) Fax: (021) 419 6774  
(2) Mr J Crowther/ Ms E de Villiers (CCA Environmental (Pty) Ltd) Fax: (021) 461 1120  
(3) Andrew.September@westerncape.gov.za (Heritage Western Cape)  
(4) Mr A van Niekerk (Cape Winelands District Municipality) Fax: (021) 883 9874  
(5) Mr S van der Merwe (Stellenbosch Municipality) Fax: (021) 886 6899  
(6) Adri.LaMeyer@westerncape.gov.za (Department of Environmental Affairs and Development Planning: Directorate: Development Facilitation)

**FOR OFFICIAL USE ONLY:**

**EIA REFERENCE NUMBER:**

**16/3/1/1/B4/45/1005/13**

**NEAS EIA REFERENCE NUMBER:**

**WCP/EIA/0001162/2013**

## **ANNEXURE 1: REASONS FOR THE DECISION**

In reaching its decision, the competent authority, *inter alia*, considered the following:

- a) The information contained in the application form dated 1 February 2013, the Environmental Management Programme ("EMP") and MMP submitted together with the Basic Assessment Report ("BAR"), dated 12 December 2016, and the additional information and revised BAR received by the Department on 15 January 2018;
- 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 interested and affected parties and the responses provided thereon, as included in the BAR dated 15 January 2018; and
- e) The sense of balance of the negative and positive impacts and proposed mitigation measures.

This application was submitted in terms of the NEMA Environmental Impact Assessment ("EIA") Regulations, 2010, and was pending at the time of the promulgation of the EIA Regulations, 2014. In accordance with regulation 53(3) of Government Notice No. 326, activities similarly listed in terms of the NEMA EIA Regulations 2014 may be authorised as if applied for. This decision takes into account the relevant amendments to the text of said regulations promulgated on 7 April 2017.

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 which, according to the competent authority, were the most significant reasons for the decision is set out below.

### **1. Public Participation**

The Public Participation Process ("PPP") included the following:

- Placing of site notices along various intersections along the R44 on 30 January 2013.
- Placing an advertisement in the "District Mail" and "Eikestadnuus" newspapers on 31 January 2013 and 1 February 2013, respectively.
- Distribution of the Background Information Document from 1 February 2013.
- An Open Day held on 27 February 2013.
- The draft BAR was made available for comment for 40 days from 2 April 2014.

- A second Open Day and Information Sharing Meeting held on 5 May 2014.
- The revised draft BAR was circulated for a commenting period of 40 days from 1 March 2016.
- The final BAR was circulated to registered I&APs and Organs of State for a 21-day commenting period from 12 December 2016.
- A second revised final BAR was circulated from 8 May 2017.
- A third revised final BAR was distributed from 23 November 2017 to 14 December 2017 to registered I&APs and Organs of State for a further 21-day commenting period.

#### **Authorities Consultation:**

The following authorities were consulted with respect to the proposed development:

- Heritage Western Cape;
- CapeNature;
- Department of Water and Sanitation;
- Department of Agriculture;
- Cape Winelands District Municipality;
- City of Cape Town
- Stellenbosch Municipality.

All the concerns raised by I&AP's were responded to and addressed during the public participation process. Specific management and mitigation measures have been considered in this environmental authorisation and in the EMP to address the concerns raised.

The Department concurs with the environmental assessment practitioner's responses to the issues raised during the public participation process and has included appropriate conditions in this environmental authorisation.

## **2. Activity Need and Desirability**

The R44 was developed in its current form in the 1970s to provide a regional link between Somerset West and Stellenbosch and as part of the larger provincial route between Kleinmond and Malmesbury via Wellington. Historically the R44 was situated in a largely rural context with mainly medium to large production farms involved in the wine industry located along the road. However, due to the rapid urban growth in this area this section of the road no longer functions optimally due to high traffic volumes, poor traffic flow and a high accident rate (often due to unsafe conditions at the median openings).

In terms of strategic forward planning, the Stellenbosch Spatial Development Framework indicates that in the long term there is likely to be further development adjacent to the R44 that would continue to add traffic to the existing road network. The successful economic growth of Stellenbosch and the surrounding area is the main contributor to the traffic growth that has been experienced over the last few years on the R44 and into Stellenbosch. This is evident by the growth in traffic volumes from an average daily traffic volume of approximately 2 000 vehicles in 1980 to approximately 30 000 vehicles at present.

As the urban environment of greater Cape Town and the surrounding Winelands areas developed over time, the character and functions of the R44 have also changed, resulting in road safety and traffic flow issues.

The overarching safety issue is due to the large number of median openings and the traffic turning movements associated with these openings. The road is also no longer effectively catering for the large volume of road users, which is evident through the traffic congestion as a result of the substantial increase in traffic volumes. The need to find a holistic solution to the safety and traffic issues along the R44 between Somerset West and Stellenbosch was therefore identified as a priority.

The R44 has formed an integral part of the provincial road network for many decades. Various development trends have contributed to the traffic growth. While agricultural activities remain predominant in the area, other business and especially tourism related activities have developed, with numerous farms converting to tourist-orientated businesses such as farm stalls, restaurants and tourist accommodation. Cyclists and pedestrians also use sections of the route on a regular basis for commuting and sport. Educational institutions have grown (e.g. many students commute daily to the University of Stellenbosch due to limited student accommodation within the town). The area is also sought after for residential purposes due to its rural atmosphere within relative close proximity to the urban context of the two large towns as well as the City of Cape Town. Some farms have been subdivided into residential smallholdings and numerous housing developments close to Stellenbosch have taken place. The development of businesses, business and office parks and shopping centers has further contributed to the transformation of this area from rural to a semi-urban environment and consequently the significant increased local traffic demand along the R44.

The R44 thus has an important local function, serving agriculture, business and the local tourism industry, in addition to providing a daily commuter route between Somerset West and Stellenbosch to and from work, schools and the university. Further urban growth in the area will continue to change the landscape character along the R44, the land use along the road is no longer purely rural in character, resulting in a continuous increase of traffic volumes. In this light, upgrading the road to improve traffic flow and road safety is considered of utmost importance under the specific circumstances. Various options to address this issues were identified and investigated resulting in the preferred road improvements that is deemed adequate in addressing current and future safety and traffic flow concerns.

### **3. Alternatives**

Alternatives were developed to improve the safety and traffic flow while maintaining road capacity along the R44. A micro-simulation model of the R44 corridor was created to test the traffic related impacts associated with the proposed upgrade alternatives. The modelling process included the evaluation of the R44 travel times, overall average network speed and trip times between major destinations as well as the future capacity constraints of the network.



3.1 Initially the proposal included:

- The closure of most median openings between Somerset West and Stellenbosch to improve safety aspects by eliminating all U-turns, right turns across oncoming traffic, dangerous deceleration and to reduce the number of conflict points;
- The upgrade of the Steynsrust Road, Bredell Road and Technopark Road intersections;
- The provision of turnaround facilities by means of grade-separated roundabouts (interchanges) at the Winery Road and Annandale Road intersections to facilitate safe turnaround movements and intersection operations;
- The closure/consolidation of certain private accesses along the R44 between Somerset West and Stellenbosch;
- The provision of pedestrian facilities at the interchanges; and
- The provision of cycling facilities at the interchanges.

During the initial round of public consultation, it became apparent that I&APs did not consider the proposed grade-separated roundabouts as suitable options. In light of the above, two additional alternatives were considered for the interchanges at the Winery Road and Annandale Road intersections, namely:

- The provision of at-grade two-lane roundabouts, which will result in a smaller footprint than the grade-separated roundabouts; and
- The provision of signalised intersections, which will result in no change to the existing footprint.

Based on economic specialist input, the preferred alternative for the interchanges at Winery Road and Annandale Road intersections was still presented as the grade-separated roundabouts. Many concerns and objections were however raised against these findings, centering around the visual impact and the effect on the rural landscape character, effects on tourism and direct effects on adjacent landowners. To address this, the project engineers were tasked to look at other possible solutions.

3.2 The revised project scheme consists of the following:

3.2.1 **Closing all median openings along the R44 (herewith authorised);**

It is proposed to close 22 median openings between Steynsrust Road and Webersvallei Road. The result would be that all public and private roads as well as private accesses along this section of the R44 would have only left in/left out access from and to the R44. U-turn facilities would be provided at both ends of the road section as well as at Winery and Annandale Roads in order to limit the additional travel distance to access properties along the R44.

3.2.2 **Providing a grade-separated U-turn facility at Steynsrust Bridge (herewith authorised);**

A grade-separated U-turn bridge (in the form of a horseshoe) is proposed adjacent to and just north of the existing Steynsrust Bridge, with on- and off-ramps within the existing road reserve. The facility provides deceleration turning lanes facilitating access to Old Stellenbosch Road and Zandberg Road. The purpose of this facility would be to provide southbound traffic wishing to go north with the opportunity to make a U-turn without accessing the local road network. Thus traffic generated by

the median closures along the R44 would not affect the surrounding municipal road network.

**3.2.3 Providing a left in/left out access to Bredell Road (herewith authorised):**

It is proposed to close the existing median openings to Bredell Road and the Klein Helderberg Road, providing left in/left out access to both roads. Improvements at the Bredell Road Intersection would entail the provision of a deceleration turning lane and an acceleration entry lane as well as a triangular splitter island at the exit/entry point.

**3.2.4 Providing a grade-separated turning facility at Winery Road.** Two alternatives were considered, namely:

a) **Alternative 1: Grade-separated roundabout interchange, above ground (Preferred Alternative herewith authorised):**

The grade-separated roundabout would be located at the existing intersection and alignment of Winery Road with the R44. The Winery Road's vertical alignment would be steepened to tie in with the grade-separated roundabout which would, in turn, be linked to the R44 via on-and-off ramps. Pedestrian walkways and cycling lanes would be included in the ramps and the roundabout. Provision would also be made on all four of the ramps for taxi drop off / pick up embayments. Access to the Ken Forrester Wine Estate would be directly opposite the access road to the smallholdings located to the north of Winery Road. The eastern edge of the roundabout would extend onto the Avontuur Estate property. The Avontuur Estate's existing access would be relocated so as to provide direct private access from the roundabout itself. It is proposed that the grade-separated roundabout would have 1:2 slope embankments in order to mitigate the potential visual impact. The slopes would be vegetated with appropriate vegetation in order to blend in with the surrounding landscape. Approximately 2.0 ha of land outside the road reserve would have to be obtained from the adjacent landowners.

As an alternative to the embankments and to minimise land-take, it would be possible to construct the embankments with a combination of vertical retaining walls and sloped embankments. This option could reduce the total land required for the interchange from private landowners to approximately 1.3 ha. The drawback of vertical retaining walls is that the visual impact of such structures would be higher initially, but could be reduced by vegetation screening that would become more effective with time. This alternative would result in the most efficient network travel times as a result of facilitating free-flow conditions for both directions of travel along the R44 while the side road traffic would experience minimal delays. Either of these options are acceptable for implementation.

b) **Alternative 2: Grade-separated diamond interchange, below ground**  
This would entail placing the Winery Road interchange approximately 7 to 8m below the existing ground level, i.e. the R44 grade line. Access to

the Ken Forrester Wine Estate and the Avontuur Estate property would be similarly aligned as above for the grade-separated roundabout. The R44 dual carriageway would retain its existing grade line, but would be located on bridge decks passing over the below-ground structure. Approximately 2.5 ha of land outside the road reserve would have to be obtained from adjacent landowners. Street lighting would be limited to the on- and off ramps and within the interchange area, which would be below ground. The below-ground interchange would have to make provision for an underground stormwater system (a gravity system) to remove stormwater from the lowest point of the interchange. Water may accumulate from groundwater seepage and/or from stormwater. Due to the topography falling to the west, a stormwater drain would be placed in the Winery Road interchange ramps and would emerge at the western limit of construction. The stormwater would then continue westwards in a lined side drain of Winery Road.

This option is not preferred as the footprint is more extensive, construction takes longer, has higher construction costs than above ground construction and results in far greater traffic disruption during the construction phase. Costs would furthermore be significantly increased by any rock being encountered during construction, a highly likely scenario in this region.

3.2.5 Providing a grade-separated turning facility at Annandale Road. Two alternatives were considered, namely:

a) **Alternative 1: Grade-separated roundabout interchange, above ground (Preferred Alternative herewith authorised);**

The R44 and Annandale Road Intersection is a key intersection on the route providing regional connectivity between the R44 and the R310 into Stellenbosch. Similar to the Winery Road Intersection, it is proposed to construct a grade-separated roundabout at this location. The roundabout would be off-set to the south of the existing intersection requiring the realignment of Annandale Road from both sides as it approaches the interchange. The approximate land acquisition requirement would be 3.3 ha.

The interchange would require the realignment of a number of existing access points to surrounding properties which will include:

- A relocation of the existing entrance onto Farm 540 (Zetler's packing plants and the Zetler residence) from Annandale Road;
- A new entrance to the existing servitude access linking the remainder of Farm 537 (Root 44 Market) to Annandale Road via a relocated access 250m along Annandale Road.
- A new point of access from the southbound R44 on-ramp onto Portion 20 of Farm 537. This point would also provide for Mooiberge Farmstall traffic to exit directly onto the R44; and,
- A new point of access from the southbound R44 off-ramp to the remainder of Farm 537. This point would also provide for Root 44 Market traffic to exit directly onto the R44. This would reduce the

traffic volume using access to Root 44 from Annandale Road (this is a new access not provided in the Draft BAR).

As an alternative to the embankments and to minimise land-take, it would be possible to construct the embankments with a combination of vertical retaining walls and sloped embankments. This option could reduce the total land required for the interchange from private landowners to approximately 2.8 ha. Vertical retaining walls would have a lower impact on the heritage resources at the intersection. Either of these options are acceptable for implementation.

b) Alternative 2: Grade-separated diamond interchange, below-ground

This alternative would entail a below-ground grade-separated diamond interchange with Annandale Road passing below the R44. Access roads to surrounding properties would be similarly aligned as described above for the grade-separated roundabout. The R44 dual carriageway would retain its existing grade line but would be located on bridge decks passing over the below-ground structure. Approximately 3.8ha of land outside the road reserve would have to be obtained from the adjacent landowners. The stormwater drainage system would be aligned along the R44 to the north as the topography falls in this direction to a low point at a small stream (a tributary of the Bonte River) approximately 220m north of the interchange. It would also be possible to construct the embankments with a combination of vertical retaining walls and sloped embankment, which could reduce the total land required from private landowners to approximately 2.5ha. The footprint of the interchange using vertical retaining walls would be similar to that for the above-ground roundabout alternative.

This alternative is not preferred, as the operational efficiency of the below-ground diamond interchange would be lower than that of the above-ground grade-separated roundabout, resulting in longer U-turn movements and the diamond interchange would also result in more conflicting movements than a roundabout interchange. Although this alternative addresses the current issues of traffic congestion and safety issues, in the long term it would not be the viable option.

3.2.6 **Providing a turning facility in the vicinity of Jamestown, which would allow vehicles travelling from the south to make a U-turn:**

- (i) in order to access properties located along the eastern side of the R44 between Jamestown Cemetery and Annandale Road; and
- (ii) vehicles departing from properties located along the western side of the R44 north of Annandale Road would require a U-turn facility in order to proceed in a southerly direction.

Three alternatives were being considered for this purpose, namely:

a) Alternative 1: A grade-separated U-turn bridge near Jamestown Cemetery;

This alternative is similar to the Steynsrust Road U-turn facility, namely a dedicated U-turn bridge over the R44 in the form of a horseshoe, with an on- and off-ramp to the R44, which would allow turns in only one direction. It would be located in the vicinity of Jamestown Cemetery. This facility would provide for U-turn movements without conflicting with the movement of traffic on the R44. This alternative is not preferred as it would require widening of the road reserve by approximately 5m on each side of the R44 and approximately 0.2ha of land would have to be acquired from an adjacent landowner and the Jamestown Cemetery.

b) Alternative 2: An at-grade teardrop turning facility near Jamestown Cemetery;

This is an at-grade, dedicated U-turn teardrop facility alternative, which is also located adjacent to Jamestown Cemetery. It would entail the provision of a turning lane located between the two carriageways. In order to accommodate the U-turn facility, the northbound carriageway of the R44 would have to be relocated over a distance of approximately 500m, resulting in an extension of the road reserve boundary approximately 12m to the north-west. The key disadvantage of this facility is that U-turning traffic would have to slow down to enter the facility while travelling in the fast lane of the northbound carriageway and exit the teardrop into oncoming traffic using the fast lane of the southbound carriageway. This alternative is not preferred as, from a technical and safety perspective, the option of traffic slowing down and accelerating from / into the fast lane is not supported by the Department of Transport and Public Works.

c) **Alternative 3: Accommodating U-turn movements at the Webersvallei Road signalised intersection (Preferred Alternative herewith authorised).**

The third alternative proposed for the purpose of accommodating U-turning traffic between Annandale Road and the Webersvallei Road, is to accommodate movements at the existing Webersvallei Road Intersection. The upgrading of this signalised intersection forms part of the proposed improvements to ease congestion at the Stellenbosch end of the R44. This would entail widening the road to add turning lanes to both the west and east and providing three through lanes in each direction. These improvements would provide sufficient space to accommodate U-turns of heavy vehicles at the traffic lights. It should be noted that this alternative is based on existing traffic generated between Annandale and Webersvallei Roads. It does not take into consideration any traffic implications that could potentially occur as a result of changes in land use along the R44 between these roads.

3.2.7 **Improving at-grade signalised intersections within the Stellenbosch municipal area between Webersvallei Road and the end of the project at Van Rhee de Street (herewith authorised).** This would entail road widening to

provide turning lanes and three through lanes in each direction at the following five intersections:

3.2.7.1 Webersvallei Road (km 29.6);

3.2.7.2 Techno Park (km 30.3);

3.2.7.3 Blaauwklippen Road (km 31.2);

3.2.7.4 Trumali Road (km 32.0); and

3.2.7.5 Van Rheeде Road (km 32.9).

**3.2.8 Additional safety measures (herewith authorised):**

3.2.8.1 Implementing average speed over distance (ASOD) control; and

3.2.8.2 Accommodating pedestrian and cycling facilities in the interchange design.

**"No-Go" Alternative**

The "no-go" option was considered and is not preferred. By not implementing the proposed road upgrades the historic features at Winery and Annandale Roads will not be impacted, there will be no negative visual impact, no change to the quality of the R44 as a scenic route or to the surrounding cultural landscape and adjacent landowners and tourists will have continued direct access to and from the R44 to their homes and businesses. The unsafe traffic conditions would however remain and worsen as traffic volumes along the R44 continue to increase. Without the required road upgrades, traffic congestion will also continue to increase and become even more problematic over time. Furthermore, road safety for pedestrians and cyclists would not improve at affected intersections. Essentially, already unacceptable, unsafe road conditions for motorists, pedestrians and cyclists will persist and become more hazardous over time.

### **3. Impacts, assessment and mitigation measures**

#### **3.1 Transport Impacts**

The R44 is a dual carriageway that links Somerset West and Stellenbosch. The area along the R44 is prized for its scenery, culture, heritage and semi-rural lifestyle. It consists of a major four lane road that winds through rural agricultural areas interspersed with commercial, light industrial and tourism facilities. The R44 currently experiences high traffic volumes during the peak hours, which results in congestion and mobility issues.

ITS Engineers (Pty) Ltd compiled a Traffic Operational Analysis, dated August 2015. An addendum was supplied in December 2015 in response to the amended development proposal. The study into the current and expected transport conditions in and around the site found that the existing geometry and control of the intersections along the R44 will not be able to accommodate the expected future demand. Therefore, to avoid long delays, long queues and peak spreading, it will be necessary to upgrade the capacity of the existing intersections.

Existing traffic volumes range from 20 000 vehicles per day in Somerset West to 40 000 vehicles in Stellenbosch. The growth in traffic volumes due to development trends in the Somerset West and Stellenbosch areas surrounding the R44 corridor are expected to continue in the future. The approach to resolving the safety

problem is thus to close all median openings between Steynsrust Road Interchange at the Somerset West end of the R44 and Webersvallei Road at the Stellenbosch end. This would require associated safe turnaround (U-turn) facilities in order to improve the safety along the R44 without sacrificing the operating capacity and mobility along the route. Closing the median openings would improve safety aspects by eliminating right turns across oncoming traffic, dangerous deceleration, U-turn movements and reducing the number of conflict points. The proposed improvements would further increase safety along the R44 for all road users.

The initial project therefore included the (i) consolidation of minor roadways and closure of median openings along the R44; (ii) improvements to sections of the road along the R44 including intersections of the R44 with Steynsrust Road, Bredell Road and Technopark Road; and (iii) U-turn opportunities via grade-separated roundabouts at the Winery Road/R44 intersection and the Annandale Road/R44 intersection.

During the public consultation process it became apparent that many I&AP's were not in support of the grade-separated roundabouts. This was largely due to its potential visual impact and negative impacts on the cultural heritage and tourism. Consequently, other options were suggested to address the identified safety and traffic congestion issues. These included suggestions such as:

- Secondary service roads running parallel to the R44: This would require two roads adjacent and parallel to the R44 of approximately 30km in length and a footprint of approximately 30ha of new/additional road surface, thereby affecting numerous properties. These service roads would also still require connection to the R44 at certain locations, most likely in the form of interchanges, as currently proposed. The 30km of additional road will also result in significant additional maintenance expenses.
- A second road closer to the mountain foothills: This would also require a substantial additional development footprint, significantly impacting on numerous properties along the route. Connection to the R44 will also still be required at certain locations.
- A Stellenbosch Bypass: The Department of Transport and Public Works is in the process of co-operating with the Stellenbosch Municipality to investigate the feasibility of a bypass road, but considers this as a separate issue. A bypass road would be approximately 13km long, with an even greater development footprint than the two former suggestions. Similarly to the above, it will also require a number of interchanges to connect to the R44 and other roads that it will cross.
- Improved public transport and dedicated bus lanes: These measures would not alleviate the existing traffic volumes to the extent where the recommended safety improvements would no longer be required.

These options were considered by the technical team but were not found suitable to effectively resolve the current safety and traffic flow deficiencies. These options would also have potential visual, cultural heritage and biophysical impacts, and the greater footprints required may result in even more substantial impacts.

In response to the objections received, a below-ground diamond interchange alternative was included as an option to address the concerns raised regarding the visual and heritage impacts. The overall findings of the traffic analysis determined that an at-grade scheme with either traffic lights or at-grade roundabouts were not viable. Although the below-ground diamond interchange is more viable, it will result in a lower traffic flow and safety efficiency due to reduced sight and stopping distances. It further confirmed that grade-separated interchanges would be the most effective alternative to provide adequate and safe U-turn movement facilities, especially if capacity constraints were improved by including upgrading of signalised intersections within Stellenbosch into the project scheme.

### **3.2 Heritage and Visual Impacts**

Heritage Western Cape ("HWC") recommended in their first comment that an impact on heritage resources was anticipated and thus a Heritage Impact Assessment that includes cultural landscape and urban design input, as well as an archaeology and a visual impact study must be conducted. The relevant required specialist studies were compiled as part of the environmental application process. Based on the findings of the Heritage Impact Assessment ("HIA") compiled by ACO Associates cc, dated February 2014 and the Addendum thereto dated August 2015, the significance of archaeological and heritage impacts ranged between medium and very low, after mitigation.

A Visual Study was undertaken by Megan Anderson Landscape Architects, dated March 2014, and an addendum, dated November 2015. The proposed development is an extension of existing road infrastructure that is located in a visually sensitive context. The Visual Study provided input into the project design to ensure that the cultural landscape is adequately considered and that the proposed development can be visually integrated into the receiving environment over time. This includes a mitigation plan to guide the design of the development layout thereby reducing the potential impacts on the sense of place associated with the site and surrounding context.

In response to these findings, Heritage Western Cape's interim comment specified that the provisions of Section 38(3) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) were not met. Chris Snelling reviewed the HIA and subsequently drafted an additional HIA, dated November 2016.

Based on the findings of the additional HIA, none of the alternatives assessed during the Basic Assessment process were considered acceptable from a cultural heritage perspective. The HIA concluded that both the grade-separated options, above as well as below ground, would have a negative impact of high significance rating on cultural heritage resources, due to the imposition of an urban morphology into a rural cultural landscape which is considered a valuable heritage resource. Similar to the grade-separated roundabout, the at-grade roundabout option would result in a physical and visual separation of the wider landscape, with no mitigation possible. The same high significance rating was assigned to at-grade roundabouts, also with no adequate mitigation available. Traffic signals were



assessed to have a lower significant impact; however, traffic signals are not a feasible solution as it will not be able to accommodate existing traffic volumes at the Winery Road and Annandale Road intersections with the R44 during peak periods if the U-turn facilities were to be introduced at these locations. The HIA concluded that "From a heritage point of view, the High Speed Mobility Model, along with the proposed interventions in their entirety, must be considered flawed as the proposed interventions envisaged will have a permanent, irreversible and detrimental impact on the identified heritage resources." HWC agreed with these findings and recommended in their Final Comment dated 17 February 2017 that they do not support the proposal in its current form and that a complete review of the nature of the proposed upgrade to the entire route be undertaken with substantial input from a heritage practitioner, landscape architect and urban designer to provide for an integrated and holistic solution.

In response to the above, and following a meeting between the applicant, project team, HWC and officials from this Department, the applicant responded as follows to the Final Comment received from HWC:

- "A range of alternatives were investigated in the process of developing the proposed grade-separated concept at Winery Road and Annandale Road intersections, including traffic signals as well as roundabouts at ground level, the latter with one, two or three lanes. It was found that none of these options could provide safe U-turn opportunities while maintaining effective functionality or operation efficiency in the context of the existing traffic volumes. Thus it was concluded that a grade-separated interchange would be the only viable approach to accommodate existing and growing traffic volumes and the U-turn movements at these intersections."
- "In response to negative comments from I&APs to the proposed interchanges, further in-depth investigation into a range of alternatives was undertaken. This culminated in the proposed project scheme as presented, i.e. assessing two alternative grade-separated interchange options in the form of an above-ground roundabout and a below-ground diamond interchange. The latter was included as an option to address concerns raised regarding the visual and heritage impacts on the surrounding landscape valued for the scenic qualities and its tourism and recreational value. A range of other alternative concepts suggested by I&APs were also considered."
- "It is important to note that none of the alternatives assessed during the Basic Assessment process was considered acceptable from a cultural heritage perspective."
- "The above brief summary of the various options investigated is presented to demonstrate that the proposed upgrade had been thoroughly considered."
- "DTPW believes that there are no other solutions beside that options considered and assessed. DTPW is of the opinion that a complete review would not result in the identification of any other solution that could be viable from a traffic safety and operation perspective and would meet heritage requirements, in light of the heritage impact assessment of existing options...DTPW is committed to utilize a heritage practitioner, landscape architect and urban designer during the detailed design phase in order to ensure that the concept design is implemented in a manner that would be

more compatible with the R44 as a scenic drive and acceptable from a cultural heritage landscape perspective."

### 3.3 Biophysical Impacts

The historical vegetation type that would have covered the study area and surrounds is Swartland Granite Renosterveld, which is classified as critically endangered. However, high levels of transformation have occurred in the study area due to the arable land being converted for agricultural purposes. Natural vegetation now only occurs as remnant areas. The proposed R44 intersection improvements at Annandale, Winery and Steynsrust Road intersections will impact on road reserves and private land. The study area is included in the Stellenbosch and Drakenstein Municipality's Critical Biodiversity Areas plan. Several patches of land at the Anandale and Winery Road intersections are designated as critically important in terms of harbouring remnant vegetation. However, after ground truthing these areas, the botanical specialist does not agree with this designation since no conservation worthy areas of vegetation, or species of conservation concern were found. Based on the findings of the Botanical Assessment dated August 2013 and the Addendum thereto dated August 2015, compiled by Bergwind Botanical Surveys and Tours, the overall impact significance for all affected vegetation at the various intersections and U-turn facilities are expected to result in a low negative impact. Cape Nature supported the findings of the specialist study.

The proposed improvements to the R44 between the Steynsrust Road in Somerset West and the Van Rhee de Road in Stellenbosch would potentially impact on the Blaauwklippen River tributary near Technopark Road, the Bonte River and its tributary new Annandale Road, the Moddergat River tributaries near Steynsrust Road and some riverbed grass dominated wetland areas in proximity to Jamestown cemetery. All of the minor streams are deemed to have a low ecological importance and sensitivity, while the larger rivers have a moderate ecological importance and sensitivity. The drainage channels have a marginal ecological importance. None of the rivers within the study area have been mapped as aquatic features of critical biodiversity value or are situated within freshwater ecosystem priority areas. The existing infrastructure, surrounding agricultural activities and urban/peri-urban development have already had a significant impact on these freshwater features, resulting in largely to severely modified riparian habitat. Based on the findings of the Freshwater Assessment dated December 2013 and the Addendums thereto dated August 2015 and October 2017, the proposed road upgrades are likely to have a very low to insignificant impact on the freshwater system (mostly during the construction phase), provided that the proposed mitigation measures are implemented. Mitigation measures have been included in the EMP to address the concerns raised and is hereby approved and must be implemented.

An application for a General Authorisation in terms of the National Water Act, 1998 (Act 38 of 1998) has been submitted to the Department of Water and Sanitation for the proposed upgrade of the R44.

A MMP has been compiled to address future routine maintenance activities within the watercourse and on the infrastructure and structures located in the affected freshwater features along this section of the R44. The future maintenance of the structures 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 are 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).

In summary, the proposed development is predicted to have both negative and positive impacts.

#### Negative Impacts:

- The proposed infrastructure will have a negative impact on the visual character along the R44. However, the VIA found that these impacts can be mitigated to a certain extent.
- The HIA concluded that the proposed infrastructure will have an unacceptable impact on the cultural landscape.
- Security, safety and crime related impacts associated with the movement of people into the area during both construction and operational phases of the development.

#### Positive impacts:

- The proposed project would provide improved road safety and a resultant decrease in road accidents.
- It will improve traffic flow for commuters along the R44, tourists in the area and the local community and will reduce travel times.
- The proposed project takes into account current and future urban expansion along the R44.
- The development will result in less expropriation related expenses than other recommended and considered route alternatives.

#### **4. National Environmental Management Act Principles**

The National Environmental Management Act 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 EMP, 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) ("NEMA") and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

- Adherence to the NEMA principles;
- Compliance with the conditions stipulated in this environmental authorisation;
- Compliance with the mitigation measures in the EMP.

**-END-**