PRE-APPLICATION BASIC ASSESSMENT REPORT
IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED)

October 2017

PROJECT TITLE

MELKHOUTFONTEIN HOUSING ON PORTION 111 FARM MELKHOUTE FONTEIN NO. 480

REPORT TYPE CATEGORY	REPORT REFERENCE NUMBER	DATE OF REPORT
Pre-Application Basic Assessment Report (if applicable)[1]	**0109/18/PA**	18 July 2018
~~Draft Basic Assessment Report[2]~~	**-**	
~~Final Basic Assessment Report[3] or, if applicable Revised Basic Assessment Report[4] (strikethrough what is not applicable)~~	-	

Notes:

1. In terms of Regulation 40(3) potential or registered interested and affected parties, including the Competent Authority, may be provided with an opportunity to comment on the Basic Assessment Report prior to submission of the application but must again be provided an opportunity to comment on such reports once an application has been submitted to the Competent Authority. The Basic Assessment Report released for comment prior to submission of the application is referred to as the "Pre-Application Basic Assessment Report". The Basic Assessment Report made available for comment after submission of the application is referred to as the "Draft Basic Assessment Report". The Basic Assessment Report together with all the comments received on the report which is submitted to the Competent Authority for decision-making is referred to as the "Final Basic Assessment Report".

2. In terms of Regulation 19(1)(b) if significant changes have been made or significant new information has been added to the Draft Basic Assessment Report , which changes or information was not contained in the Draft Basic Assessment Report consulted on during the initial public participation process, then a Final Basic Assessment Report will not be submitted, but rather a "Revised Basic Assessment Report", which must be subjected to another public participation process of at least 30 days, must be submitted to the Competent Authority together with all the comments received.

DEPARTMENTAL REFERENCE NUMBER(S)

Pre-application reference number:	**16/3/3/6/7/1/D5/11/0109/18**
File reference number (EIA):	
NEAS reference number (EIA):	
File reference number (Waste):	
NEAS reference number (Waste):	
File reference number (Air Quality):	
NEAS reference number (Air Quality):	
File reference number (Other):	
NEAS reference number (Other):	

CONTENT AND GENERAL REQUIREMENTS

Note that:

1. The content of the Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), any subsequent Circulars, and guidelines must be taken into account when completing this Basic Assessment Report Form.
2. This Basic Assessment Report is the standard report format which, in terms of Regulation 16(3) of the EIA Regulations, 2014 (as amended) must be used in all instances when preparing a Basic Assessment Report for Basic Assessment applications for an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA")and the EIA Regulations, 2014 (as amended) and/or a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) ("NEM:WA"), and/or an atmospheric emission licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA") when the Western Cape Government: Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority/Licensing Authority.
3. This report form is current as of October 2017. It is the responsibility of the Applicant/ Environmental Assessment Practitioner ("EAP") to ascertain whether subsequent versions of the report form have been released by the Department. Visit the Department's website at **http://www.westerncape.gov.za/eadp** to check for the latest version of this checklist.
4. The required information must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The tables may be expanded where necessary.
5. The use of "not applicable" in the report must be done with circumspection. All applicable sections of this report form must be completed. Where "not applicable" is used, this may result in the refusal of the application.
6. While the different sections of the report form only provide space for provision of information related to one alternative, if more than one feasible and reasonable alternative is considered, the relevant section must be copied and completed for each alternative.
7. Unless protected by law, all information contained in, and attached to this report, will become public information on receipt by the competent authority. If information is not submitted with this report due to such information being protected by law, the applicant and/or EAP must declare such non-disclosure and provide the reasons for believing that the information is protected.
8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this report must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.
9. This Report must be submitted to the Department and the contact details for doing so are provided below.
10. Where this Department is also identified as the Licencing Authority to decide applications under NEM:WA or NEM:AQA, the submission of the Report must also be made as follows, for-
    - Waste management licence applications, this report must also (*i.e.,* another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (tel: 021-483-2756 and fax: 021-483-4425) at the same postal address as the Cape Town Office.
    - Atmospheric emissions licence applications, this report must also be (*i.e.*, another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (tel: 021 483 2798 and fax: 021 483 3254) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS

CAPE TOWN OFFICE		GEORGE REGIONAL OFFICE
REGION 1 **(City of Cape Town & West Coast District)**	**REGION 2** **(Cape Winelands District & Overberg District)**	**REGION 3** **(Central Karoo District & Eden District)**
Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1) Private Bag X 9086 Cape Town, 8000 Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Development Management (Region 1) at: Tel.: (021) 483-5829 Fax: (021) 483-4372	Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 2) Private Bag X 9086 Cape Town, 8000 Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Development Management (Region 2) at: Tel.: (021) 483-5842 Fax: (021) 483-3633	Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530 Registry Office 4th Floor, York Park Building 93 York Street George Queries should be directed to the Directorate: Development Management (Region 3) at: Tel.: (044) 805-8600 Fax: (044) 805 8650

TABLE OF CONTENTS:

ACRONYMS USED IN THIS BASIC ASSESSMENT REPORT AND APPENDICES:

BAR	Basic Assessment Report
CBA	Critical Biodiversity Area
DEA	National Department of Environmental Affairs
DEA&DP	Western Cape Government: Environmental Affairs and Development Planning
DWS	National Department of Water and Sanitation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESA	Ecological Support Area
HWC	Heritage Western Cape
I&APs	Interested and Affected Parties
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM:ICMA	National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
PPP	Public Participation Process

DETAILS OF THE APPLICANT

Applicant / Organisation / Organ of State:	Hessequa Municipality		
Contact person:	Municipal Manager		
Postal address:	PO Box 29, Riversdale		
Telephone:	021 970 4600	Postal Code:	6670
Cellular:	NA	Fax:	028 713 8000
E-mail:	info@hessequa.gov.za		

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

Name of the EAP organisation:	Eco Impact Legal Consulting (Pty) Ltd		
Person who compiled this Report:	Lauren Abrahams		
EAP Reg. No.:	SACNASP 100126/12		
Contact Person (if not author):	NA		
Postal address:	PO Box 45070		
Telephone:	(021) 671 1660	Postal Code:	7735
Cellular:	066 210 9892	Fax:	(021) 671 9967
E-mail:	admin@ecoimpact.co.za		
EAP Qualifications:	B Tech Oceanography: Cape Peninsula University of Technology (2010)		

Please provide details of the lead EAP, including details on the expertise of the lead EAP responsible for the Basic Assessment process. Also attach his/her Curriculum Vitae to this BAR.

Ms Lauren Abrahams

Lauren Abrahams has completed her professional registration in terms of section 20(3) (b) of the Natural Scientific Professions Act, 2003 (Act 27 of 2003) as a Candidate Natural Scientist in the field of practice Biological Science (Registration number 100126/12). She obtained her B Tech in Oceanography at the Cape Peninsula University of Technology in 2010.

Lauren has trained as an Environmental Assessment Practitioner since July 2015 and has been involved in the compilation, coordination and management of Basic Assessment Reports, Environmental Impact Assessments, Environmental Management Programmes, Waste Licence Applications, Water Use Licence Applications and Baseline Biodiversity Surveys for numerous clients.
Refer to Appendix K: EAP CV

EXECUTIVE SUMMARY OF THE PRE-APPLICATION BASIC ASSESSMENT REPORT:

Hessequa Municipality proposes a housing development and associated infrastructure on Farm Melkhoute Fontein 111/480 with a total development area of 18.26ha. The development proposes the following:

- ±157 residential erven (>150m^2)
- ±225 residential erven (<150m^2)
- Business erven (±2.76ha)
- Community facility (±0.967ha)
- A stormwater corridor running along the eastern boundary as well as from the centre of the proposed site towards the south-eastern corner of the development site has been excluded from the development area.
- A Telkom servitude runs along the northern boundary of the development site and an electricity servitude traverses from the south-western corner to the centre of the northern boundary of the development site.
- Sewerage will be connected via a pipeline on the southern boundary via the footpath in an eastern direction to link to the municipal sewerage network in the existing Melkhoutfontein town.

See the site development plan located in Appendix B.

Location alternatives – Portion of Farm 148/480 and Erf 570 was previously identified and assessed as location alternatives, but was discarded. Farm 111/480 was identified and agreed with the community of Melkhoutfontein and a SDP was developed. No other location alternatives were considered or assessed as this property is the only feasible property identified by the municipality and the community.

Activity alternatives - No other activity alternatives were assessed as no feasible or reasonable activity exists. There is a need for residential and housing within the community of Melkhoutfontein and no other alternative activities was assessed as they are not feasible or reasonable.

Layout alternatives – Two layout and design alternatives were considered and assessed. The preferred alternative make provision for more residential opportunities and less business or community facilities in order to provide for the number of housing opportunities identified and needed for the community of Melkhoutfontein.

Technology alternatives - The only technological alternatives assessed and considered, were the use of electricity conservation.

Electricity:
- Use of energy efficient equipment;
- CFL's must be used to save energy cost where possible;

Fluorescent lighting must be used in communal spaces where possible

Operational alternatives – Operational alternatives were not assessed as they are not feasible or reasonable. The only operational activity applicable to the development relates to maintenance.

The No-Go Option - The No-Go option will result in the site remaining as is at present.

Impact Summary

Construction phase:
- Disturbance to subsurface geological layers (**Medium impact before mitigation and low impact with mitigation measures**);
- Soil erosion and dust - (**Low impact before mitigation and low impact with mitigation measures**);
- Impact of construction activities on surface and underground water pollution - (**High impact before mitigation and low impact with mitigation measures**);
- Impact on drainage line / groundwater resources - (**High impact before mitigation and low impact with mitigation measures**);
- Impact on surrounding and municipal planning policies and guidelines - (**Medium impact before mitigation and low impact with mitigation measures**);
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (**High impact before mitigation and Medium impact with mitigation measures**);
- Increased jobs - (**No impact before mitigation and positive impact with mitigation measures**);
- Increased traffic due to the construction activities requiring various vehicles to come onto and leave the site - (**Low impact before mitigation and low impact with mitigation measures**);
- The potential impact of the proposed development on archaeological, paleontological and heritage remains - (**Low impact before mitigation and low impact with mitigation measures**);
- Noise due to construction machinery - (**Low impact before mitigation and low impact with mitigation measures**);
- Visual impact of infrastructure and services establishment - (**Low impact before mitigation and low impact with mitigation measures**).

Operational phase:
- Disturbance to subsurface geological layers - (**Medium impact before mitigation and low impact with mitigation measures**);
- Soil erosion and dust - (**Medium impact before mitigation and low impact with mitigation measures**);
- Impact of operation activities on surface and underground water pollution - (**High impact before**

mitigation and low impact with mitigation measures);

- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(High impact before mitigation and Medium impact with mitigation measures);**

Decommissioning phase:

Similar to impacts associated with construction phase.

No Go or No Development option:

- The No-Go option will result in the site remaining as is presently.

Ecological

The two non-perennial drainage lines and a 32m buffer area must be excluded from the development area and zoned as open space in order to protect the Ecological Support Area and to allow for ecological functioning to continue. It is recommended that road crossings over the drainage lines be avoided. Should it not be possible to avoid crossing the drainage lines, this crossing must be limited to one crossing and the crossing must be closed to the upper section (Eden Road) where the existing road crosses the drainage line.

Method statements for the construction of the crossing over the drainage line must be submitted to the freshwater ecologist for approval and an application must be submitted to the Breede Gouritz Water Catchment Management Agency for approval. All alien plants must be cleared and the drainage lines and its buffers maintained and allowed to rehabilitate.

The study site is heavily invaded by alien trees (*Acacia cyclops*) which has resulted in low indigenous species diversity for the area. The indigenous species will however recover once the aliens are cleared and follow up clearing occurs. Some alien clearing has been done on site. This is however not coordinated. Firewood is removed and the branches are left on site. Access to the site is difficult as a result of the branches that are spread over the site. The fire risk on site is high as a result.

The northern and western portions of the site are classified as a terrestrial Critical Biodiversity Area ("CBA"). Please take note that this area was not classified as a terrestrial Critical Biodiversity Area in the previous assessment[1]. The drainage lines were classified as an Ecological Support Area. *Sideroxylon inerme* (Protected Milkwood Tree), *Agathosma muirii* (Vulnerable) *and Cullumia carlinoides* (Near Threatened) are the possible conservation worthy species that may occur on site. *Sideroxylon inerme* (Protected Milkwood Tree) was the only specie that was recorded during the survey. Most of the *Sideroxylon inerme* (Protected Milkwood Tree) recorded are within the drainage lines and the 32m buffer areas.

However, some of them are not in these areas and may be impacted upon. They must be recorded during construction and protected as far as possible. Should any of the *Sideroxylon inerme* (Protected Milkwood Tree) need to be pruned or removed, a permit must be obtained.

There is no question that the receiving environment is botanically important and should be treated as such since it has numerous endemic species and is viewed as threatened habitat at a fine-scale planning level. However, this does not preclude scope for considering housing infrastructure on condition that the sensitivities of the environment are observed. On this basis it is concluded that from a botanical perspective the drainage lines and the buffer areas should be completely excluded from further consideration. The rest of the site should only be considered if strong mitigation measures such as ecological corridors and a biodiversity offset area can be assured and active woody alien invasive eradication is guaranteed. In this way an important area of 'limestone fynbos' could be conserved.

[1] bgis.sanbi.org 2014/02/06

SECTION A: PROJECT INFORMATION

1. ACTIVITY LOCATION

Location of all proposed sites:	Melkhoutfontein lies off the R305 north of Still Bay. The proposed housing development site of 18.26ha is situated west of the town Melkhoutfontein.
Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site:	Farm Melkhoute Fontein 111/480
Property size(s) in m^2 for each proposed site:	18.26ha
Development footprint size(s) in m^2:	18.26ha
Surveyor General (SG) 21-digit code for each proposed site:	C06400000000048000111

2. PROJECT DESCRIPTION

(a) Is the project a new development? If "NO", explain:

YES	~~NO~~

NA

(b) Provide a detailed description of the scope of the proposed development (project).

Hessequa Municipality proposes a housing development and associated infrastructure on Farm Melkhoute Fontein 111/480 with a total development area of 18.26ha. The development proposes the following:

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- Sewerage will be connected via a pipeline on the southern boundary via the footpath in an eastern direction to link to the municipal sewerage network in the existing Melkhoutfontein town.
- See the site development plan located in Appendix B.

Please note: This description must relate to the listed and specified activities in paragraph (d) below.

(c) Please indicate the following periods that are recommended for inclusion in the environmental authorisation:

(i)	the period within which commencement must occur,	Within 5 years of obtaining Environmental Authorisation
(ii)	the period for which the environmental authorisation should be granted and the date by which the activity must have been concluded, where the environmental authorisation does not include operational aspects;	Within 10 years of obtaining Environmental Authorisation
(iii)	the period that should be granted for the non-operational aspects of the environmental authorisation; and	Within 10 years of obtaining Environmental Authorisation
(iv)	the period that should be granted for the operational aspects of the environmental authorisation.	Ongoing maintenance of infrastructure and implementation of EMP until decommissioning.

Please note: The Department must specify the abovementioned periods, where applicable, in an environmental authorisation. In terms of the period within which commencement must occur, the period must not exceed 10 years and must not be extended beyond such 10 year period, unless the process to amend the environmental authorisation contemplated in regulation 32 is followed.

(d) List all the listed activities triggered and being applied for.

Please note: The onus is on the applicant to ensure that all the applicable listed activities are applied for and assessed as part of the EIA process. Please refer to paragraph (b) above.

EIA Regulations Listing Notices 1 and 3 of 2014 (as amended):

Activity No(s):	Provide the relevant **Basic Assessment Listed Activity(ies)** as set out in **Listing Notice 1** (GN No. R. 983) as amended
9	The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water- (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where- (a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.
10	The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes- (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where- (a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.
12	The development of- ~~(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or~~ (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs- (a) within a watercourse; (b) ~~in front of a development setback; or~~ (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;- excluding- (aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (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; (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; (dd) where such development occurs within an urban area; (ee) where such development occurs within existing roads, road reserves or railway line reserves; or (ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.
19	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; but excluding where such infilling, depositing, dredging, excavation, removal or moving- (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance

	management plan; (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.
24	The development of a road- (i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres; but excluding a road- (a) which is identified and included in activity 27 in Listing Notice 2 of 2014; (b) where the entire road falls within an urban area; or (c) which is 1 kilometre or shorter.
27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.
45	The expansion of infrastructure for the bulk transportation of water or storm water where the existing infrastructure- (i) has an internal diameter of 0,36 metres or more; or (ii)has a peak throughput of 120 litres per second or more; and (a) where the facility or infrastructure is expanded by more than 1 000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more;
46	The expansion and related operation of infrastructure for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes where the existing infrastructure- (i) has an internal diameter of 0,36 metres or more; or (ii) has a peak throughput of 120 litres per second or more; and (a) where the facility or infrastructure is expanded by more than 1 000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more;
56	The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre- (i) where the existing reserve is wider than 13,5 meters; or (ii) where no reserve exists, where the existing road is wider than 8 metres.
Activity No(s):	Provide the relevant **Basic Assessment Listed Activity(ies)** as set out in **Listing Notice 3** (GN No. R. 985) as amended
4	The development of a road wider than 4 metres with a reserve less than 13,5 metres. **i. Western Cape** ~~i. Areas zoned for use as public open space or equivalent zoning;~~ ii. Areas outside urban areas; (aa) Areas containing indigenous vegetation; ~~(bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or~~ ~~iii. Inside urban areas:~~ ~~(aa) Areas zoned for conservation use; or~~ ~~(bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.~~
Activity No(s):	Provide the relevant **Scoping and EIR Listed Activity(ies)** as set out in **Listing Notice 2** (GN No. R. 984) as amended
NOT APPLICABLE	
Activity No(s):	Provide the relevant **Category A Waste Management Activity(ies)** as set out in **List of Waste Management Activities** (GN No. R. 921)
NOT APPLICABLE	
Activity No(s):	Provide the relevant **Category B Waste Management Activity(ies)** as set out in **List of Waste Management**

	Activities (GN No. R. 921)
NOT APPLICABLE	

Waste management activities in terms of the NEM: WA (GN No. 921):

Category A Listed Activity No(s):	Describe the relevant Category A waste management activity in writing as per GN No. 921	Describe the portion of the development that relates to the applicable listed activity as per the project description
NA		

Note: If any waste management activities are applicable, the **Listed Waste Management Activities Additional Information Annexure** must be completed and attached to this Basic Assessment Report as **Appendix I.**

Atmospheric emission activities in terms of the NEM: AQA (GN No. 893):

Listed Activity No(s):	Describe the relevant atmospheric emission activity in writing as per GN No. 893	Describe the portion of the development that relates to the applicable listed activity as per the project description.
NA		

(e) Provide details of all components (including associated structures and infrastructure) of the proposed development and attach diagrams (*e.g.,* architectural drawings or perspectives, engineering drawings, process flowcharts, *etc*.).

Buildings Provide brief description below:	YES	~~NO~~
Houses, buildings and community faciliities		
Infrastructure (*e.g.,* roads, power and water supply/ storage) Provide brief description below:	YES	~~NO~~
Hessequa Municipality proposes a housing development and associated infrastructure on Farm Melkhoute Fontein 111/480 with a total development area of 18.26ha. The development proposes the following: • ±157 residential erven (>150m^2) • ±225 residential erven (<150m^2) • Business erven (±2.76ha) • Community facility (±0.967ha) • A stormwater corridor running along the eastern boundary as well as from the centre of the proposed site towards the south-eastern corner of the development site has been excluded from the development area. • A Telkom servitude runs along the northern boundary of the development site and an electricity servitude traverses from the south-western corner to the centre of the northern boundary of the development site. • Sewerage will be connected via a pipeline on the southern boundary via the footpath in an eastern direction to link to the municipal sewerage network in the existing Melkhoutfontein town. • See the site development plan located in Appendix B.		
Processing activities (*e.g.,* manufacturing, storage, distribution) Provide brief description below:	~~YES~~	NO
NA		
Storage facilities for raw materials and products (*e.g.,* volume and substances to be stored) Provide brief description below:	~~YES~~	NO
NA		
Storage and treatment facilities for effluent, wastewater or sewage: Provide brief description below:	~~YES~~	NO
NA		
Storage and treatment of solid waste Provide brief description below:	~~YES~~	NO
NA		
Facilities associated with the release of emissions or pollution. Provide brief description below:	~~YES~~	NO
NA		
Other activities (*e.g.,* water abstraction activities, crop planting activities) – Provide brief description below:	~~YES~~	NO
NA		

3. PHYSICAL SIZE OF THE PROPOSED DEVELOPMENT

(a) Property size(s): Indicate the size of all the properties (cadastral units) on which the development proposal is to be undertaken	18.26	ha

(b) Size of the facility: Indicate the size of the facility where the development proposal is to be undertaken	15.6	ha
(c) Development footprint: Indicate the area that will be physically altered as a result of undertaking any development proposal (*i.e.,* the physical size of the development together with all its associated structures and infrastructure)	15.6	ha
(d) Size of the activity: Indicate the physical size (footprint) of the development proposal	15.6	ha
(e) For linear development proposals: Indicate the length (L) and width (W) of the development proposal	(L) NA	km
	(W) NA	m
(f) For storage facilities: Indicate the volume of the storage facility	NA	m^3
(g) For sewage/effluent treatment facilities: Indicate the volume of the facility (Note: the maximum design capacity must be indicated	NA	m^3

4. SITE ACCESS

(a) Is there an existing access road?	YES	~~NO~~
(b) If no, what is the distance in (m) over which a new access road will be built?		m

(c) Describe the type of access road planned:

The proposed development will be directly access of the R 305 to Melkhoutfontein road at an access point approved by Department of Public works and roads.

Please note: The position of the proposed access road must be indicated on the site plan.

5. DESCRIPTION OF THE PROPERTY(IES) ON WHICH THE LISTED ACTIVITY(IES) ARE TO BE UNDERTAKEN AND THE LOCATION OF THE LISTED ACTIVITY(IES) ON THE PROPERTY

5.1 Provide a description of the property on which the listed activity(ies) is/are to be undertaken and the location of the listed activity(ies) on the property, as well as of all alternative properties and locations (duplicate section below as required).

Melkhoutfontein lies off the R305 north of Still Bay. The proposed housing development site of 18.26ha is situated west of the town Melkhoutfontein. Currently the site is a vacant vegetated area heavily invaded by alien trees (*Acacia cyclops*) which has resulted in low indigenous species diversity for the area. Some alien clearing has been done on site. This is however not coordinated. Firewood is removed and the branches are left on site. Access to the site is difficult as a result of the branches that are spread over the site. The fire risk on site is high as a result. The site is traversed by two non-perennial watercourses as well as electricity servitude.

Coordinates of all proposed sites: Latitude (S)	34°	19‘	46.41“
Longitude (E)	21°	24‘	25.35“

Note: For land where the property has not been defined, the coordinates of the area within which the development is proposed must be provided in an addendum to this report.

5.2 Provide a description of the area where the aquatic or ocean-based activity(ies) is/are to be undertaken and the location of the activity(ies) and alternative sites (if applicable).

An internal road will cross one of the non-perennial drainage lines.

Coordinates of the boundary /perimeter of all proposed aquatic or ocean-based activities (sites) (if applicable):	**Latitude (S):** (deg.; min.; sec)			**Longitude (E):** (deg.; min.; sec)		
	34°	19‘	50.77“	21°	24‘	28.10“
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"

5.3 For a linear development proposal, please provide a description and coordinates of the corridor in which the proposed development will be undertaken (if applicable).

NA

For linear activities: (See Appendix J)	**Latitude (S):**			**Longitude (E):**		
• Starting point of the activity						

• Middle point of the activity						
• End point of the activity						

Note: For linear development proposals longer than 1000m, please provide an addendum with co-ordinates taken every 250m along the route. All important waypoints must be indicated and the GIS shape file provided digitally.

5.4 Provide a location map (see below) as **Appendix A** to this report that shows the location of the proposed development and associated structures and infrastructure on the property; as well as a detailed site development plan / site map (see below) as **Appendix B** to this report; and if applicable, all alternative properties and locations. The GIS shape files (.shp) for maps / site development plans must be included in the electronic copy of the report submitted to the competent authority.

Locality Map:	The scale of the locality map must be at least 1:50 000. For linear development proposals of more than 25 kilometres, a smaller scale *e.g.*, 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following: • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; • a linear scale; • the prevailing wind direction (during November to April and during May to October); and • GPS co-ordinates (to indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection). For an ocean-based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken. Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94; WGS84 co-ordinate system.

Site Plan:	Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following: • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be indicated on the site plan. • The position of each element of the application as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development must be indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): o Watercourses / Rivers / Wetlands - including the 32 meter set back line from the edge of the bank of a river/stream/wetland; o Flood lines (*i.e.*, 1:100 year, 1:50 year and 1:10 year where applicable; o Ridges; o Cultural and historical features; o Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas. The GIS shape file for the site development plan(s) must be submitted digitally.

6. SITE PHOTOGRAPHS

Colour photographs of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached as **Appendix C** to this report. The aerial photograph(s) should be supplemented with additional photographs of relevant

features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.

SECTION B: DESCRIPTION OF THE RECEIVING ENVIRONMENT

Site/Area Description

For linear development proposals (pipelines, *etc*.) as well as development proposals that cover very large sites, it may be necessary to complete copies of this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area that is covered by each copy on the Site Plan.

1. GRADIENT OF THE SITE

Indicate the general gradient of the sites (highlight the appropriate box).

Flat	Flatter than 1:10	~~1:10 – 1:4~~	~~Steeper than 1:4~~

2. LOCATION IN LANDSCAPE

(a) Indicate the landform(s) that best describes the site (highlight the appropriate box(es).

~~Ridgeline~~	~~Plateau~~	~~Side slope of hill / mountain~~	~~Closed valley~~	Open valley	Plain	Undulating plain/low hills/~~inland dunes~~	~~Dune~~	~~Sea front~~

(b) Provide a description of the location in the landscape.

The proposed housing development site is situated west of the town Melkhoutfontein, south of the main access road Eden Country Rd/Suikerbossie Street. It is located within an undulating area on a gradual gradient which slopes mainly towards the coast from north to south and west to east on this particular site. The elevation of the site varies between 38m to 28m above mean sea level.

Two sensitive and significant non-perennial drainage lines is present, which eventually feeds into the Goukou River Estuary system and which has been classified as a Critical Ecological Support Area Buffer. Approximately 80% of the terrestrial vegetated area on site is classified as a Terrestrial CBA.

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

(a) Is the site(s) located on or near any of the following (highlight the appropriate boxes)?

Shallow water table (less than 1.5m deep)	YES	~~NO~~	~~UNSURE~~
Seasonally wet soils (often close to water bodies)	YES	~~NO~~	~~UNSURE~~
Unstable rocky slopes or steep slopes with loose soil	~~YES~~	NO	~~UNSURE~~
Dispersive soils (soils that dissolve in water)	~~YES~~	NO	~~UNSURE~~
Soils with high clay content	~~YES~~	NO	~~UNSURE~~
Any other unstable soil or geological feature	~~YES~~	NO	~~UNSURE~~
An area sensitive to erosion	~~YES~~	NO	~~UNSURE~~
An area adjacent to or above an aquifer.	YES	~~NO~~	~~UNSURE~~
An area within 100m of a source of surface water	YES	~~NO~~	~~UNSURE~~
An area within 500m of a wetland	YES	~~NO~~	~~UNSURE~~
An area within the 1:50 year flood zone	~~YES~~	NO	~~UNSURE~~
A water source subject to tidal influence	~~YES~~	NO	~~UNSURE~~

Take note that two non-perennial drainage lines occur on site. They were mapped and 32m buffer areas established to protect them. A road crosses one of the drainage lines. According To the Aquifer Classification of South Africa[2] the underlying area represents the major aquifer region which is a high-yielding aquifer system of variable water quality.

(b) If any of the answers to the above is "YES" or "UNSURE", specialist input may be requested by the Department.

[2] http://www.dwa.gov.za/Groundwater/documents/Aquifer%20Classification.pdf

(Information in respect of the above will often be available at the planning sections of local authorities. The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

(c) Indicate the type of geological formation underlying the site.

~~Granite~~	~~Shale~~	~~Sandstone~~	~~Quartzite~~	~~Dolomite~~	~~Dolorite~~	Other (describe)

Provide a description.

The Melkhoutfontein Village is underlain by rocks of the Cape Supergroup, which are mostly buried underneath younger sedimentary rocks and mainly calcareous sediments of the Bredasdorp Formation. Shales from the Bokkeveld Group (Cape Supergroup) are observed in road cuttings and all along the banks of the Goukou River. The Bredasdorp Formation unconformably overlies the Bokkeveld Formation.

Being relatively young marine sedimentary deposits, the Bokkeveld Group often leads to saline groundwater conditions where an aquifer has developed. In the Bokkeveld shales in the Stilbaai and Riversdale areas, groundwater from boreholes in the shale formation is very saline and unsuitable for domestic use.

The Bredasdorp Formation is mainly composed of limestone, sandy limestone, sandstone and a basal conglomerate (De Hoopvlei Formation). The sedimentary succession varies from approximately 120 to 150 meters in thickness and dips gently towards the south in the Melkhoutfontein region. These sediments are beach and dune deposits that were deposited and reworked during times of sea level transgression and regression (rise and fall of sea levels due to melting and freezing of ice caps).

The Bredasdorp Formation with especially the basal conglomerate directly determines the aquifer type and geometry in the Melkhoutfontein area. An unconfined aquifer develops in the calcrete rocks and yields from the basal conglomerate are sufficient for supplying Stilbaai with water and facilitating significant spring discharge at Melkhoutfontein, Jongensfontein, Blombos and more. Yields of boreholes developed into the basal conglomerate varies from moderate to high enough for bulk water supply, e.g. to the entire town of Stillbaai.

Also refer to Appendix G: Report of Geohydrological Investigation in Support of the MIG Application for the Planned Expansion of the Melkhoutfontein Village Area (Groundwater Complete. May 2015)

4. SURFACE WATER

(a) Indicate the surface water present on and or adjacent to the site and alternative sites (highlight the appropriate boxes)?

Perennial River	~~YES~~	NO	~~UNSURE~~
Non-Perennial River	YES	~~NO~~	~~UNSURE~~
Permanent Wetland	YES	~~NO~~	~~UNSURE~~
Seasonal Wetland	YES	~~NO~~	~~UNSURE~~
Artificial Wetland	~~YES~~	NO	~~UNSURE~~
Estuarine / Lagoon	~~YES~~	NO	~~UNSURE~~

(b) Provide a description.

Two sensitive and significant non-perennial drainage lines is present, which eventually feeds into the Goukou River Estuary system and which has been classified as a Critical Ecological Support Area Buffer. The drainage lines are protected with an 32m buffer area.

5. THE SEAFRONT / SEA

(a) Is the site(s) located within any of the following areas? (highlight the appropriate boxes).
If the site or alternative site is closer than 100m to such an area, please provide the approximate distance in (m).

AREA	**YES**	**NO**	**UNSURE**	**If "YES": Distance to nearest area (m)**
An area within 100m of the high water mark of the sea	~~YES~~	NO	~~UNSURE~~	
An area within 100m of the high water mark of an estuary/lagoon	~~YES~~	NO	~~UNSURE~~	

An area within the littoral active zone	~~YES~~	NO	~~UNSURE~~	
An area in the coastal public property	~~YES~~	NO	~~UNSURE~~	
Major anthropogenic structures	~~YES~~	NO	~~UNSURE~~	
An area within a Coastal Protection Zone	~~YES~~	NO	~~UNSURE~~	
An area seaward of the coastal management line	~~YES~~	NO	~~UNSURE~~	
An area within the high risk zone (20 years)	~~YES~~	NO	~~UNSURE~~	
An area within the medium risk zone (50 years)	~~YES~~	NO	~~UNSURE~~	
An area within the low risk zone (100 years)	~~YES~~	NO	~~UNSURE~~	
An area below the 5m contour	~~YES~~	NO	~~UNSURE~~	
An area within 1km from the high water mark of the sea	~~YES~~	NO	~~UNSURE~~	
A rocky beach	~~YES~~	NO	~~UNSURE~~	
A sandy beach	~~YES~~	NO	~~UNSURE~~	

(b) If any of the answers to the above is "YES" or "UNSURE", specialist input may be requested by the Department. (The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

6. BIODIVERSITY

Note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed development. To assist with the identification of the biodiversity occurring on site and the ecosystem status, consult http://bgis.sanbi.org or BGIShelp@sanbi.org . Information is also available on compact disc ("cd") from the Biodiversity-GIS Unit, Tel.: (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) must be provided as an overlay map on the property/site plan as **Appendix D** to this report.

(a) Highlight the applicable biodiversity planning categories of all areas on preferred and alternative sites and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category. Also describe the prevailing level of protection of the Critical Biodiversity Area ("CBA") and Ecological Support Area ("ESA") (how many hectares / what percentages are formally protected).

Systematic Biodiversity Planning Category	CBA	ESA	~~Other Natural Area ("ONA")~~	~~No Natural Area Remaining ("NNR")~~
If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan and the conservation management objectives	Approximately 80% of the property is classified as a terrestrial CBA. The non-perennial drainage lines are classified as Aquatic Ecological Support Areas.			
Describe the site's CBA/ESA quantitative values (hectares/percentage) in relation to the prevailing level of protection of CBA and ESA (how many hectares / what percentages are formally protected locally and in the province)	The following CBA's were mapped for the study area in terms of the Hessequa Municipality's mapping of CBAs for the study area by SANBI[3]: • **CBA: Terrestrial** ➢ ***Definition*** Areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. ➢ ***Management Objective*** Maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate. • **ESA: Aquatic** ➢ ***Definition*** Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services.			

[3] SANBI 2017 Western Cape Biodiversity Spatial Plan (WCBSP)

	➢ ***Management Objective*** Restore and/or manage to minimize impact on ecological processes and ecological infrastructure functioning, especially soil and water-related services, and to allow for faunal movement.

(b) Highlight and describe the habitat condition on site.

Habitat Condition	**Percentage of habitat condition class (adding up to 100%) and area of each in square metre (m^2)**		**Description and additional comments and observations (including additional insight into condition, *e.g.* poor land management practises, presence of quarries, grazing/harvesting regimes, *etc.*)**
Natural	10%	1.86ha	Refer to Appendix G. Ecology Impact Assessment Specialist Report.
Near Natural (includes areas with low to moderate level of alien invasive plants)	0%	m^2	
Degraded (includes areas heavily invaded by alien plants)	90%	16.74ha	Refer to Appendix G. Ecology Impact Assessment Specialist Report.
Transformed (includes cultivation, dams, urban, plantation, roads, *etc.*)	0%	ha	

(c) Complete the table to indicate:
(i) the type of vegetation present on the site, including its ecosystem status; and
(ii) whether an aquatic ecosystem is present on/or adjacent to the site.

Terrestrial Ecosystems		**Description of Ecosystem, Vegetation Type, Original Extent, Threshold (ha, %), Ecosystem Status**
Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	~~Critically~~	NA
	~~Endangered~~	
	~~Vulnerable~~	NA
	Least Threatened	The study area is classified as Canca Limestone Fynbos vegetation. The vegetation is classified as least threatened by Mucina and Rutherford[4].

Aquatic Ecosystems						
Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
YES	~~NO~~	~~UNSURE~~	~~YES~~	NO	~~YES~~	NO

(d) Provide a description of the vegetation type and/or aquatic ecosystem present on the site, including any important biodiversity features/information identified on the site (e.g. threatened species and special habitats). Clearly describe the biodiversity targets and management objectives in this regard.

In order to assess the condition, ecological importance and sensitivity of the river segment being assessed, it is necessary to understand how the river habitat characteristics and stream flow was under natural conditions (prior to direct and induced human modifications). This is achieved through classifying rivers according to what its ecological characteristics are in situ and extrapolating these characteristics in comparison with data derived reference conditions, or via professional judgment using catchments of similar physical and biological characteristics. Thus, by deducing ecological

[4] Mucina, L. and Rutherford, M.C. (Eds) 2006. The Vegetation of South Africa, Lesotho and Swaziland.SANBI, Pretoria

reference conditions, impacts on the site can be measured and classed to channel condition, riparian zone integrity, stream quality, as well as factors impacting with reference to the catchment as a whole.

River typing or classification involves the hierarchical grouping of rivers into ecologically similar units so that inter- and intra-river variation in factors that influence water chemistry, channel type, substratum composition and hydrology are best accounted for. This tool provides a framework for reference conditions of streams under study by comparing these conditions to streams that are similar. Thus, the classification of rivers provides the basis for assessing river condition to allow comparison between similar rivers (as a reference) and the rivers under study. The primary classification of rivers is a division into Ecoregions. Rivers within an ecoregion are further divided into sub-regions.

The instream habitat integrity of the non-perennial drainage lines is largely natural to moderately modified, with the main impact being as a result of the upstream access road impacting on the one drainage line flow and a downstream access road that impact on both drainage lines. However, the drainage lines are mostly natural with the biggest impact is as a result of dense *Acacia cyclops* plant growth which impacting on the drainage line vegetation.

There are two conservation mapping initiatives of relevance to the project, the Freshwater Ecosystem Priority Areas (FEPA) map which is available for the entire South Africa and the Hessequa Municipality's mapping of Critical Biodiversity Areas (CBA). FEPAs are strategic spatial priorities for conserving freshwater ecosystems and associated biodiversity that were determined through a process of systematic biodiversity planning and were identified using a range of criteria for serving ecosystems and associated biodiversity of rivers, wetlands and estuaries. These rivers should be kept in their current condition, should not be degraded any further than its current moderately modified condition and it should be considered for rehabilitation. The non-perennial drainage lines through the property is mapped as a FEPA River Corridor that is considered to be moderately modified and should not be allowed to be degraded or modified further. There are no FEPA wetlands mapped within the study area.

7. LAND USE OF THE SITE

Note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed development.

Untransformed area	~~Low density residential~~	~~Medium density residential~~	~~High density residential~~	~~Informal residential~~
~~Retail~~	~~Commercial & warehousing~~	~~Light industrial~~	~~Medium industrial~~	~~Heavy industrial~~
~~Power station~~	~~Office/consulting room~~	~~Military or police base/station/compound~~	~~Casino/entertainment complex~~	~~Tourism and Hospitality facility~~
~~Open cast mine~~	~~Underground mine~~	~~Spoil heap or slimes dam~~	~~Quarry, sand or borrow pit~~	~~Dam or reservoir~~
~~Hospital/medical centre~~	~~School~~	~~Tertiary education facility~~	~~Church~~	~~Old age home~~
~~Sewage treatment plant~~	~~Train station or shunting yard~~	~~Railway line~~	~~Major road (4 lanes and more)~~	~~Airport~~
~~Harbour~~	~~Sport facilities~~	~~Golf course~~	~~Polo fields~~	~~Filling station~~
~~Landfill or waste treatment site~~	~~Plantation~~	~~Agriculture~~	River, stream or wetland	~~Nature conservation area~~
~~Mountain, koppie or ridge~~	~~Museum~~	~~Historical building~~	Graveyard	~~Archaeological site~~
~~Other land uses (describe):~~				

(a) Provide a description.

Currently the site is a vacant vegetated area heavily invaded by alien trees (*Acacia cyclops*) which has resulted in low indigenous species diversity for the area. Some alien clearing has been done on site. This is however not coordinated. Firewood is removed and the branches are left on site. Access to the site is difficult as a result of the branches that are spread over the site. The fire risk on site is high as a result. The site is traversed by two non-perennial watercourses as well as

electricity servitude.

8. LAND USE CHARACTER OF THE SURROUNDING AREA

(a) Highlight the current land uses and/or prominent features that occur within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site.

Note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed development.

Untransformed area	Low density residential	~~Medium density residential~~	~~High density residential~~	~~Informal residential~~
~~Retail~~	~~Commercial & warehousing~~	~~Light industrial~~	~~Medium industrial~~	~~Heavy industrial~~
Power station	~~Office/ consulting room~~	~~Military or police base/ station/ compound~~	~~Casino/ entertainment complex~~	~~Tourism & Hospitality facility~~
~~Open cast mine~~	~~Underground mine~~	~~Spoil heap or slimes dam~~	~~Quarry, sand or borrow pit~~	~~Dam or reservoir~~
~~Hospital/ medical centre~~	School	~~Tertiary education facility~~	Church	~~Old age home~~
~~Sewage treatment plant~~	~~Train station or shunting yard~~	~~Railway line~~	~~Major road (4 lanes or more)~~	~~Airport~~
~~Harbour~~	~~Sport facilities~~	~~Golf course~~	~~Polo fields~~	~~Filling station~~
~~Landfill or waste treatment site~~	~~Plantation~~	Agriculture	River, stream or wetland	~~Nature conservation area~~
~~Mountain, koppie or ridge~~	~~Museum~~	~~Historical building~~	Graveyard	~~Archaeological site~~
~~Other land uses (describe):~~				

(b) Provide a description, including the distance and direction to the nearest residential area, industrial area, agri-industrial area.

Melkhoutfontein residential area is approximately 900 east of the site.

9. SOCIO-ECONOMIC ASPECTS

a) Describe the existing social and economic characteristics of the community in the vicinity of the proposed site, in order to provide baseline information (for example, population characteristics/demographics, level of education, the level of employment and unemployment in the area, available work force, seasonal migration patterns, major economic activities in the local municipality, gender aspects that might be of relevance to this project, *etc.*).

The Hessequa Integrated Development Plan 2007-2012 states that the following development priorities exists for Melkhoutfontein:

- Tourist Potential: Development of Melkhoutfontein as a tourist destination.
- Housing Needs: the process to identify land for housing must be accelerated; a procedure of transferring home ownership to the currently rented municipal houses must be followed; house rental costs of municipal houses is too high and must be reviewed and informal settlements require urgent attention; provision of 800 houses.
- Service Delivery/Infrastructure Needs: tarring of the road between Melkhoutfontein and Gouritzmond; establishment of high school within Melkhoutfontein; provision and maintenance of basic infrastructure services; storm water drainage management in informal settlement areas; street lighting; lighting informal settlement areas; kerbing; taxi rank; refuse removal and waste disposal; water and sanitation for workers homes; electricity for Driefontein and surrounds; licensing or decommissioning of current Melkhoutfontein landfill site.

Since the 2007 – 2012 IDP identified that a housing need exists of 800 houses the following has been provided to date at Melkhoutfontein: Provision of 180 low-income housing erven with associated infrastructure and basic services. There is thus still a substantial subsidised housing need for the community of Melkhoutfontein.

10. HISTORICAL AND CULTURAL ASPECTS

(a) Please be advised that if section 38 of the NHRA is applicable to your proposed development, you are requested to furnish this Department with written comment from Heritage Western Cape as part of your public participation process. Heritage Western Cape must be given an opportunity, together with the rest of the I&APs, to comment on any Pre-application BAR, a Draft BAR, and Revised BAR.

Section 38 of the NHRA states the following:
"*38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-*

(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
(b) the construction of a bridge or similar structure exceeding 50m in length;
(c) any development or other activity which will change the character of a site-
(i) exceeding 5 000m² in extent; or
(ii) involving three or more existing erven or subdivisions thereof; or
(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
(d) the re-zoning of a site exceeding 10 000m² in extent; or
(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development".

(b) The impact on any national estate referred to in section 3(2), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii), of the NHRA, must also be investigated, assessed and evaluated. Section 3(2) states the following:
"*3(2) Without limiting the generality of subsection (1), the national estate may include—*
(a) places, buildings, structures and equipment of cultural significance;
(b) places to which oral traditions are attached or which are associated with living heritage;
(c) historical settlements and townscapes;
(d) landscapes and natural features of cultural significance;
(e) geological sites of scientific or cultural importance;
(f) archaeological and palaeontological sites;
(g) graves and burial grounds, including—
(i) ancestral graves;
(ii) royal graves and graves of traditional leaders;
(iii) graves of victims of conflict;
(iv) graves of individuals designated by the Minister by notice in the Gazette;
(v) historical graves and cemeteries; and
(vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
(h) sites of significance relating to the history of slavery in South Africa;
(i) movable objects, including—
(i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;
(ii) objects to which oral traditions are attached or which are associated with living heritage;
(iii) ethnographic art and objects;
(iv) military objects;
(v) objects of decorative or fine art;
(vi) objects of scientific or technological interest; and
(vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996)".

Is Section 38 of the NHRA applicable to the proposed development?	YES	~~NO~~	~~UNCERTAIN~~
If YES or UNCERTAIN, explain:	A Notice of Intent to Develop was submitted to the HWC. Should any human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, all work must cease and immediately be reported to SAHRA or HWC.		
Will the development impact on any national estate referred to in Section 3(2) of the NHRA?	~~YES~~	NO	~~UNCERTAIN~~
If YES or UNCERTAIN, explain:	NA		
Will any building or structure older than 60 years be affected in any way?	~~YES~~	NO	~~UNCERTAIN~~
If YES or UNCERTAIN, explain:	NA		
Are there any signs of culturally or historically significant elements, as defined in section 2 of the NHRA, including Archaeological or paleontological sites, on or close (within 20m) to the site?	~~YES~~	NO	~~UNCERTAIN~~

If YES or UNCERTAIN, explain:	NA

Note: If uncertain, the Department may request that specialist input be provided **and** Heritage Western Cape must provide comment on this aspect of the proposal. (Please note that a copy of the comments obtained from the Heritage Resources Authority must be appended to this report as Appendix E1).

11. APPLICABLE LEGISLATION, POLICIES, CIRCULARS AND/OR GUIDELINES

(a) Identify all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to the development proposal and associated listed activity(ies) being applied for and that have been considered in the preparation of the BAR.

LEGISLATION	**ADMINISTERING AUTHORITY**	**TYPE** **Permit/ license/ authorisation/comment / relevant consideration** (e.g. rezoning or consent use, building plan approval)	**DATE (if already obtained):**
National Environmental Management Act, 1998 (Act No. 107 of 1998) [NEMA] and relevant regulations	Western Cape Department of Environmental Affairs and Development Planning	Environmental Authorisation Application	N/A
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) [NEMWA] and relevant regulations	Western Cape Department of Environmental Affairs and Development Planning	N/A	N/A
National Environmental Management: Biodiversity Act 10 of 2004 [NEMBA]	Western Cape Department of Environmental Affairs and Development Planning	N/A	N/A
National Environmental Management: Air Quality Act, 39 of 2004 [NEMAQA] and Relevant Regulations	Western Cape Department of Environmental Affairs and Development Planning	N/A	N/A
National Water Act, 1998 (Act No. 36 of 1998) [NWA] and relevant regulations	Department of Water Affairs	Water Use Authorization for infrastructure with 100m from the water course.	N/A
Conservation of Agricultural Resources Act, 43 of 1983 [CARA]	National Department of Agriculture, forestry and Fisheries Western Cape Department of Agriculture	N/A	N/A
National Health Act, 61of 2003 [NHA]		N/A	N/A
Constitution of the Republic of South Africa, 1996 [CRSA]		General application of individual rights of all on and adjacent to the site	N/A
Fencing Act, 31 of 1963 [FA]		N/A	N/A
National Building Regulations and Building Standards Act 103 of 1977 [NBRBSA] and relevant regulations		N/A	N/A
National Heritage Resources Act 25 of 1999 [NHRA]	Heritage Western Cape South African Heritage Resource Agency	NID	N/A
National Veld and Forest Fire Act 101 of 1998 [NVFFA]		N/A	N/A
Fertilizers, Farm Feeds, Agricultural Remedies And Stock Remedies Act, 36 Of 1947 [FFFARSRA] and Relevant Regulations	National Department of Agriculture, forestry and Fisheries Western Cape Department of Agriculture	N/A	N/A
Section 42 of Spatial Planning and Land Use Management Act (16 of 2013) ("SPLUMA")	Hessequa Municipality	Rezoning application	N/A
Western Cape Land Use Planning Act, 2014 ("LUPA")	Hessequa Municipality	Rezoning application	N/A

POLICY/ GUIDELINES/BY-LAWS	ADMINISTERING AUTHORITY
EADP 0028/2014One Environmental Management System	Western Cape Department of Environmental Affairs and Development Planning
Guideline on Need and desirability	The Department of Environmental Affairs (first version published in terms of section 24J of the NEMA in 2014 and second version in 2017)
Guideline for Environmental Management Plans (EMP's)	Western Cape Department of Environmental Affairs and Development Planning
Guideline of Specialist Reports	Western Cape Department of Environmental Affairs and Development Planning

(b) Describe how the proposed development **complies with and responds** to the legislation and policy context, plans, guidelines, spatial tools, municipal development planning frameworks and instruments.

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	Describe how the proposed development complies with and responds to:
NEMA	Basic Assessment Process conducted to assess potential environmental impacts and apply for Environmental Authorisation
NEMWA	If applicable all waste management activities to be conducted during the proposed development to adhere to the NEMWA requirements
NEMBA	If applicable potential impacts on biodiversity features of the site and surrounds to be assessed and mitigation measures proposed during the basic assessment process.
NEMAQA	If applicable potential impacts on air quality on site and surrounds to be assessed and mitigation measures proposed during the basic assessment process.
NWA	If applicable potential impacts on ground- and surface water resources assessed during basic assessment process and if required a water use authorisation under section 21 will be applied for.
CARA	If applicable the landowner/applicant is reminded of his/her responsibility to manage and eradicated certain weed and alien plant vegetation on his/her property and requirements are incorporated into the EMP.
National Health Act	If applicable potential impacts on the health and wellbeing of human population on the site and surrounds are assessed and mitigation measure are proposed during the basic assessment process.
Constitution of the RSA	General application to individual rights of all on and adjacent to the sites.
Fencing Act	If applicable potential impacts and requirements concerning fencing of the site and surrounds to be assessed and mitigation measures proposed during the basic assessment process.
National Building Regulations and Building Standards Act	If applicable potential impacts and requirements concerning erection of building on the site and surrounds to be assessed and mitigation measures proposed during the basic assessment process.
NHRA	If applicable potential impacts on graves and burial sites and any structures older than 60 years are assessed and mitigation measures proposed during the basic assessment process.
NVFFA	If applicable any activities that could result in the start of veld fires are assessed and mitigated during the basic assessment process.
FFFARSRA	If applicable any potential impacts of activities associated with pest control, the use of agricultural remedies and with providing / manufacturing fertiliser are assessed and mitigated during the basic assessment process.
Guideline on Public Participation	The public participation guideline is used to determine the requirements in terms of implementing the public participation process during the basic assessment process to be conducted. The guideline was also used to determine the most effective communication strategies for public participation.

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	Describe how the proposed development complies with and responds to:
Guidelines on Alternatives	The guidelines for alternatives assessment was used to develop a methodology for alternatives assessment. This methodology was applied to determine and assess the most viable alternatives to the project. The assessment was undertaken against the baseline environment (i.e. the no-go option).
Guideline on Need and desirability	The guideline was taken into account to determine whether the project complied according to the concept of Best Practicable Environmental Option as well as environmental and social sustainability.
Guideline for EMP's	The guideline for EMP's was taken into account to determine the most effective minimize, mitigation and management measures to minimise or prevent the potential environmental impacts identified during the basic assessment process

Note: Copies of any comments, permit(s) or licences received from any other Organ of State must be attached to this report as **Appendix E**.

Section C: PUBLIC PARTICIPATION

The PPP must fulfil the requirements outlined in the NEMA, the EIA Regulations, 2014 (as amended) and if applicable, the NEM: WA and/or the NEM: AQA. This Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must also be taken into account.

1. Please highlight the appropriate box to indicate whether the specific requirement was undertaken or whether there was an exemption applied for.

In terms of Regulation 41 of the EIA Regulations, 2014 (as amended) -			
(a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of -			
(i) the site where the activity to which the application relates, is or is to be undertaken; and	YES	~~EXEMPTION~~	
(ii) any alternative site	YES	~~EXEMPTION~~	~~N/A~~
(b) giving written notice, in any manner provided for in Section 47D of the NEMA, to –			
(i) the occupiers of the site and, if the applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES	~~EXEMPTION~~	~~N/A~~
(ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES	~~EXEMPTION~~	
(iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;	YES	~~EXEMPTION~~	
(iv) the municipality (Local and District Municipality) which has jurisdiction in the area;	YES	~~EXEMPTION~~	
(v) any organ of state having jurisdiction in respect of any aspect of the activity; and	YES	~~EXEMPTION~~	
(vi) any other party as required by the Department;	YES	~~EXEMPTION~~	~~N/A~~
(c) placing an advertisement in -			
(i) one local newspaper; or	YES	~~EXEMPTION~~	
(ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;	~~YES~~	~~EXEMPTION~~	N/A
(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken	~~YES~~	~~EXEMPTION~~	N/A
(e) using reasonable alternative methods, as agreed to by the Department, in those instances where a person is desirous of but unable to participate in the process due to— (i) illiteracy; (ii) disability; or (iii) any other disadvantage.	YES	~~EXEMPTION~~	~~N/A~~
If you have indicated that "EXEMPTION" is applicable to any of the above, proof of the exemption decision must be appended to this report.			
Please note that for the NEM: WA and NEM: AQA, a notice must be placed in at least two newspapers circulating in the area where the activity applied for is proposed.			

If applicable, has/will an advertisement be placed in at least two newspapers?	~~YES~~	~~NO~~
If "NO", then proof of the exemption decision must be appended to this report.		

2. Provide a list of all the State Departments and Organs of State that were consulted:

State Department / Organ of State	Date request was sent:	Date comment received:	Support / not in support
Cape Nature	-	-	-
DEA&DP: Development Management	-	-	-
DEA&DP: Waste Management	-	-	-
DEA&DP: Pollution and Chemicals Management	-	-	-
Breede Gouritz Water Catchment Management Agency - George	-	-	-
Heritage Western Cape	-	-	-
Eden District Municipality	-	-	-
Department of Agriculture, Western Cape (Provincial)	-	-	-
Hessequa Local Municipality	-	-	-
Department of Human Settlements			
Western Cape Road Network Management	-	-	-

3. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated, or the reasons for not including them.
   (The detailed outcomes of this process, including copies of the supporting documents and inputs must be included in a Comments and Response Report to be attached to the BAR (see note below) as **Appendix F**).

Await comment

4. Provide a summary of any conditional aspects identified / highlighted by any Organs of State, which have jurisdiction in respect of any aspect of the relevant activity.

Await comment

Note:
Even if pre-application public participation is undertaken as allowed for by Regulation 40(3), it must be undertaken in accordance with the requirements set out in Regulations 3(3), 3(4), 3(8), 7(2), 7(5), 19, 40, 41, 42, 43 and 44.

If the "exemption" option is selected above and no proof of the exemption decision is attached to this BAR, the application will be refused.

A list of all the potential I&APs, including the Organs of State, notified and a list of all the registered I&APs must be submitted with the BAR. The list of registered I&APs must be opened, maintained and made available to any person requesting access to the register in writing.

The BAR must be submitted to the Department when being made available to I&APs, including the relevant Organs of State and State Departments which have jurisdiction with regard to any aspect of the activity, for a commenting period of at least 30 days. Unless agreement to the contrary has been reached between the Competent Authority and the EAP, the EAP will be responsible for the consultation with the relevant State Departments in terms of Section 24O and Regulation 7(2) – which consultation must happen simultaneously with the consultation with the I&APs and other Organs of State.

All the comments received from I&APs on the BAR must be recorded, responded to and included in the Comments and Responses Report included as **Appendix F** of the BAR. If necessary, any amendments made in response to comments received must be effected in the BAR itself. The Comments and Responses Report must also include a description of the PPP followed.

The minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded, must also be submitted as part of the public participation information to be attached to the final BAR as **Appendix F.**

Proof of all the notices given as indicated, as well as notice to I&APs of the availability of the Pre-Application BAR (if applicable), Draft BAR, and Revised BAR (if applicable) must be submitted as part of the public participation information to be attached to the BAR as **Appendix F**. In terms of the required "proof" the following must be submitted to the Department:

- a site map showing where the site notice was displayed, a dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
  - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
  - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
  - if a facsimile was sent, a copy of the facsimile report;
  - if an electronic mail was sent, a copy of the electronic mail sent; and
  - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

SECTION D: NEED AND DESIRABILITY

Note: Before completing this section, first consult this Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department's website: **http://www.westerncape.gov.za/eadp**). In this regard, it must be noted that the *Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010* published by the national Department of Environmental Affairs on 20 October 2014 (GN No. 891 on Government Gazette No. 38108 refers) (available at: http://www.gov.za/sites/www.gov.za/files/38108_891.pdf) also applied to EIAs in terms of the EIA Regulations, 2014 (as amended).

1. Is the development permitted in terms of the property's existing land use rights?	~~YES~~	NO	Please explain
The property is located inside the designated urban edge and identified for residential development in the SDF, but a rezoning approval is needed.			
2. Will the development be in line with the following?			
(a) Provincial Spatial Development Framework ("**PSDF**").	YES	~~NO~~	Please explain
Residential development on an area included in the urban edge and SDF for residential development. The proposed development is consistent with the PSDF as the application area is vacant and underutilised land.			
(b) Urban edge / edge of **built environment** for the area.	~~YES~~	NO	Please explain
Residential development on an area outside of the urban edge.			
(c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (*e.g.,* would the approval of this application compromise the integrity of the existing approved and credible municipal **IDP and SDF**?).	YES	~~NO~~	Please explain
The property is located inside the designated urban edge and identified for residential development in the SDF, but a rezoning approval is needed.			
(d) An Environmental Management Framework ("**EMF**") adopted by this Department. (*e.g.,* Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	~~YES~~	NO	~~Please explain~~
No EMF adopted for the area.			
(e) Any **other** Plans (*e.g.,* Integrated Waste Management Plan (for waste management activities), *etc.*)).	~~YES~~	NO	~~Please explain~~
NA			
3. Is the land use (associated with the project being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (in other words, is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	~~NO~~	Please explain
The property is located inside the designated urban edge and identified for residential development in the SDF, but a rezoning approval is needed.			
4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur on the proposed site at this point in time?	YES	~~NO~~	Please explain
The property is located inside the designated urban edge and identified for residential development in the SDF, but a rezoning approval is needed.			
5. Does the community/area need the project and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (*e.g.,* development is a National Priority, but within a specific local context it could be inappropriate.)	YES	~~NO~~	Please explain
The Hessequa Integrated Development Plan 2007-2012 states that the following development priorities exists for Melkhoutfontein: • Housing Needs: the process to identify land for housing must be accelerated; a procedure of transferring home ownership to the currently rented municipal houses must be followed; house			

rental costs of municipal houses is too high and must be reviewed and informal settlements require urgent attention; provision of 800 houses. Since the 2007 – 2012 IDP identified that a housing need exists of 800 houses the following has been provided to date at Melkhoutfontein: Provision of 180 low-income housing erven with associated infrastructure and basic services. There is thus still a substantial subsidised housing need for the community of Melkhoutfontein.			
6. Are the necessary **services** available together with adequate unallocated municipal capacity (at the time of application), or must additional capacity be created to cater for the project? (Confirmation by the relevant municipality in this regard must be attached to the BAR as **Appendix E**.)	YES	~~NO~~	Please explain
The proposed development will link to municipal services in Melkhoutfontein east and North of the site. Capacity is available to service the development.			
7. Is this project provided for in the **infrastructure planning** of the municipality and if not, what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant municipality in this regard must be attached to the BAR as **Appendix E**.)	YES	~~NO~~	Please explain
The proposed development will link to municipal services in Melkhoutfontein east and North of the site. Capacity is available to service the development.			
8. Is this project part of a **national programme** to address an issue of national concern or importance?	YES	~~NO~~	~~Please explain~~
Since the 2007 – 2012 IDP identified that a housing need exists of 800 houses the following has been provided to date at Melkhoutfontein: Provision of 180 low-income housing erven with associated infrastructure and basic services. There is thus still a substantial subsidised housing need for the community of Melkhoutfontein.			
9. Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.)	YES	~~NO~~	Please explain
The property is located inside the designated urban edge and identified for residential development in the SDF, but a rezoning approval is needed. The development will link to municipal services that have the capacity to service the development. The development site allows for better integration and is closer to the main access road to Still bay and the school.			
10. Will the development proposal or the land use associated with the development proposal applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?	YES	~~NO~~	Please explain
The site is identified as a terrestrial CBA and the non-perennial drainage lines as ESA. The ESA will be protected with a buffer area. Only one road will cross one of them. The development will however impact on the identified terrestrial CBA.			
11. Will the development impact on people's health and well-being (*e.g.,* in terms of noise, odours, visual character and 'sense of place', *etc.*)?	~~YES~~	NO	Please explain
The proposed development will provide new housing for the current community of Melkhoutfontein residence on the housing waiting list and formal housing for people living in informal structures. Temporary nuisances such as noise, vehicular movement, dust etc. will be produced during the construction phase. Thereafter, during the operational phase the impacts will be similar to that occurring in the existing residential areas adjacent to the site. The visual character of the land will change from degraded natural and agricultural land to residential, which will be mitigated by designing the proposed development as according to existing architectural and layout characteristics of Melkhoutfontein to blend in with adjacent urban developed areas.			
12. Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs?	~~YES~~	NO	~~Please explain~~
Development cost will be for the government in terms of subsidise housing and Municipal Infrastructure Grant funding.			
13. What will the **cumulative impacts** (positive and negative) of the proposed land use associated with the development proposal and associated listed activity(ies) applied for, be?			
The expansion of the town will result in cumulative impacts associated with residential development in the area, such as vehicle traffic and services. The necessary services and road infrastructure can however accommodate these impacts.			
14. Is the development the **best practicable environmental option** for this land/site?	~~YES~~	NO	Please explain
No from an Ecological perspective due to the identified terrestrial CAB. However, the ESA will be protected with a buffer area. Only one road will cross one of them. Yes in terms of Environmental impacts.			
15. What will the benefits be to society in general and to the local communities?			Please explain

The property is included in the Melkhoutfontein urban edge and Municipality SDF, but rezoning is required. The development will impact positively on people's health and well-being as the development is for the development of houses and infrastructure for which there is a great need in the area.

16. Any **other** need and desirability considerations related to the proposed development?	Please explain

NA

17. Describe how the **general objectives of Integrated Environmental Management** as set out in Section 23 of the NEMA have been taken into account:

All decisions during the planning and assessment by all involved for the activity promote the integration of the principles of environmental management set out in section 2 to minimize and mitigate any significant effect on the environment. All these mitigations and management measures are included and written into the EMP.

18 Describe how the **principles of environmental management** as set out in Section 2 of the NEMA have been taken into account:

NATIONAL ENVIRONMENTAL MANAGEMENT PRINCIPLES

2. Principles

(1) The principles set out in this section apply throughout the Republic to the actions of all organs of state that may significantly affect the environment and

(a) shall apply alongside all other appropriate and relevant considerations, including the State's responsibility to respect, protect, promote and fulfil the social and economic rights in Chapter 2 of the Constitution and in particular the basic needs of categories of persons disadvantaged by unfair discrimination;

(b) serve as the general framework within which environmental management and implementation plans must be formulated;

(c) serve as guidelines by reference to which any organ of state must exercise any function when taking any decision in terms of this Act or any statutory provision concerning the protection of the environment;

(d) serve as principles by reference to which a conciliator appointed under this Act must make recommendations; and

(e) guide the interpretation, administration and implementation of this Act, and any other law concerned with the protection or management of the environment.

(2) Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.
The proposed environmental management requirements have been determined by assessing all potential impacts that the development may have on people and their needs and aims to prevent or if prevention is not possible to mitigate any potential negative impacts on the environment and people.

(3) Development must be socially, environmentally and economically sustainable.
The proposed development has been planned, designed and assessed in such as manner as to ensure that it is socially, environmentally and economically sustainable.

(4)

(a) Sustainable development requires the consideration of all relevant factors including the following:

(i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

(ii) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

(iii) that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;

(iv) that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;

(v) that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;

(vi) that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;

(vii) that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and

(viii) that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

The assessment conducted aimed to identify all potential negative impacts on the environment and on people's environmental rights (as listed above and more), and where such potential negative impacts as identified and assessed could not be altogether prevented/avoided mitigation measures were recommended and incorporated into the Environmental Management Programme to minimise the significance of the potential negative impacts as far as possible. The assessment also aimed to determine whether or not the proposed development will lead to the unacceptable exploitation of renewable and non-renewable resources and associated ecosystems.

(b) Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.
An integrated environmental assessment approach was followed acknowledging that all elements of the environment are linked and interrelated and realising that effects of decisions may have cumulative impacts on the environment and people and that the best practicable environmental option must therefore be selected.

(c) Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons.
Environmental justice was pursued to prevent discrimination against any person, particularly vulnerable and disadvantage persons.

(d) Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.
Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being was pursued and special measures implemented if required ensure access.

(e) Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.
As per the recommended EMP requirements the Applicant (as per the EA stipulations) remains responsible for the environmental health and safety consequences of the proposed activity/ies throughout its life cycle.

(f) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by

vulnerable and disadvantaged persons must be ensured.
Adequate and appropriate opportunity for public participation was provided and proof thereof included in Appendix F as per the guidelines and regulations in decisions that may affect the environment.

(g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge.
All decision regarding the proposed activity/ies took into account the interests, needs and values of all potential interested and affected parties.

(h) Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.
Depending on the scope of the proposed activity community awareness campaigns will be conducted as and if required.

(i) The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.
All potential negative and positive impacts associated with the proposed development are assessed and mitigated during the assessment process.

(j) The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.
As per standard EMP requirements all relevant health and safety legislation must be adhered to during the implementation of the proposed activities.

(k) Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.
As per public participation process regulations all information relating to the proposed activities are public knowledge and available to the public for perusal and comments during the assessment process.

(l) There must be intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment.

(m) Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures.
Comments from all relevant organs of state are requested, recorded and addressed during assessment process.

(n) Global and international responsibilities relating to the environment must be discharged in the national interest.
Applied as and when relevant to the proposed activities.

(o) The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage.
All potential impacts on environmental resources are assessed and mitigated to prevent unacceptable exploitation of renewable and non-renewable resources and associated ecosystems.

(p) The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.
As per standard EMP requirements the applicant, as per the EA issued, will remain financially responsible for remedying any negative environmental and health effects cause by or due to the proposed activities.

(q) The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.
If applicable the role of women and youth in environmental management and development related to the proposed activities will be assessed and incorporated into EMP requirements during the assessment process.

(r) Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.
All sensitive, vulnerable, highly dynamic or stressed ecosystems must be identified during the assessment process and the significance of any potential impacts on these systems must be determined and appropriate prevention, or if prevention is not possible mitigation measures must be incorporated into the EMP requirements.

SECTION E: DETAILS OF ALL THE ALTERNATIVES CONSIDERED

Note: Before completing this section, first consult this Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department's website **http://www.westerncape.gov.za/eadp**.

The EIA Regulations, 2014 (as amended) defines "*alternatives*" as " *in relation to a proposed activity, means different means of fulfilling the general purpose and requirements of the activity, which may include alternatives to the—*
(a) property on which or location where the activity is proposed to be undertaken;
(b) type of activity to be undertaken;
(c) design or layout of the activity;
(d) technology to be used in the activity; or
(e) operational aspects of the activity;
(f) and includes the option of not implementing the activity;"

The NEMA (section 24(4)(a) and (b) of the NEMA, refers) prescribes that the procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment must, *inter alia*, with respect to every application for environmental authorisation –

- ensure that the general objectives of integrated environmental management laid down in the NEMA and the National Environmental Management Principles set out in the NEMA are taken into account; and
- include an investigation of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity.

The general objective of integrated environmental management (section 23 of NEMA, refers) is, *inter alia*, to "*identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management*" set out in the NEMA.

The identification, evaluation, consideration and comparative assessment of alternatives directly relate to the management of impacts. Related to every identified impact, alternatives, modifications or changes to the activity must be identified, evaluated, considered and comparatively considered to:

- in terms of negative impacts, firstly avoid a negative impact altogether, or if avoidance is not possible alternatives to better mitigate, manage and remediate a negative impact and to compensate for/offset any impacts that remain after mitigation and remediation; and
- in terms of positive impacts, maximise impacts.

1. DETAILS OF THE IDENTIFIED AND CONSIDERED ALTERNATIVES AND INDICATE THOSE ALTERNATIVES THAT WERE FOUND TO BE FEASIBLE AND REASONABLE

Note: A full description of the investigation of alternatives must be provided and motivation if no reasonable or feasible alternatives exists.

(a) Property and **location/site** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Portion of Farm 148/480 and Erf 570 was previously identified and assessed as location alternatives, but was discarded. Farm 111/480 was identified and agreed with the community of Melkhoutfontein and a SDP was developed. No other location alternatives were considered or assessed as this property is the only feasible property identified by the municipality and the community.

(b) **Activity** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

No other activity alternatives were assessed as no feasible or reasonable activity exists. There is a need for residential and housing within the community of Melkhoutfontein and no other alternative activities was assessed as they are not feasible or reasonable.

(c) **Design or layout** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Two layout and design alternatives were considered and assessed. The preferred alternative make provision for more residential opportunities and less business or community facilities in order to provide for the number of housing opportunities identified and needed for the community of Melkhoutfontein.

(d) **Technology** alternatives (*e.g.,* to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

The only technological alternatives assessed and considered, were the use of electricity conservation.

Electricity:

- Use of energy efficient equipment;
- CFL's must be used to save energy cost where possible;
- Fluorescent lighting must be used in communal spaces where possible

(e) **Operational** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Operational alternatives were not assessed as they are not feasible or reasonable. The only operational activity applicable to the development relates to maintenance.

(f) The option of **not implementing** the activity (the '*No-Go*' Option):

The No-Go option will result in the site remaining as is

(g) **Other** alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

N/A

(h) Provide a **summary** of all alternatives investigated and the outcome of each investigation:

Location alternatives – Portion of Farm 148/480 and Erf 570 was previously identified and assessed as location alternatives, but was discarded. Farm 111/480 was identified and agreed with the community of Melkhoutfontein and a SDP was developed. No other location alternatives were considered or assessed as this property is the only feasible property identified by the municipality and the community.

Activity alternatives - No other activity alternatives were assessed as no feasible or reasonable activity exists. There is a need for residential and housing within the community of Melkhoutfontein and no other alternative activities was assessed as they are not feasible or reasonable.

Layout alternatives – Two layout and design alternatives were considered and assessed. The preferred alternative make provision for more residential opportunities and less business or community facilities in order to provide for the number of housing opportunities identified and needed for the community of Melkhoutfontein.

Technology alternatives - The only technological alternatives assessed and considered, were the use of electricity conservation.

Electricity:
- Use of energy efficient equipment;
- CFL's must be used to save energy cost where possible;

Fluorescent lighting must be used in communal spaces where possible

Operational alternatives – Operational alternatives were not assessed as they are not feasible or reasonable. The only operational activity applicable to the development relates to maintenance.

The No-Go Option - The No-Go option will result in the site remaining as is at present.

(i) Provide a detailed **motivation for not further considering** the alternatives that were found not feasible and reasonable, including a description and proof of the investigation of those alternatives:

Refer to points (a) – (f) above.

2. PREFERRED ALTERNATIVE

(a) Provide a **concluding statement** indicating the preferred alternative(s), including preferred location, site, activity and technology for the development.

The preferred alternative make provision for more residential opportunities and less business or community facilities in order to provide for the number of housing opportunities identified and needed for the community of Melkhoutfontein. The sensitive non-perennial drainage lines were also excluded from the development and protected with a 32m buffer area.

SECTION F: ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE ALTERNATIVES

Note: The information in this section must be DUPLICATED for all the feasible and reasonable ALTERNATIVES.

1. DESCRIBE THE ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE PROPOSED DEVELOPMENT AND ITS ALTERNATIVES, FOCUSING ON THE FOLLOWING:

(a) Geographical, geological and physical aspects:

The proposed action will not have a significant adverse cumulative effect on topography, slopes, soils and groundwater resources, if operational and construction mitigation measures are implemented. The proposed development will not be a potential source of contamination to the underlying groundwater and will cause no significant degradation of the potable drinking water supply.

(b) Ecological aspects:

Will the proposed development and its alternatives have an impact on CBAs or ESAs? If yes, please explain: Also include a description of how the proposed development will influence the quantitative values (hectares/percentage) of the categories on the CBA/ESA map.	YES	~~NO~~

Approximately 80% of the property is classified as a terrestrial CBA. The non-perennial drainage lines are classified as Aquatic Ecological Support Areas. The following CBA's were mapped for the study area in terms of the Hessequa Municipality's mapping of CBAs for the study area by SANBI[5]:

- **CBA: Terrestrial**
  - ***Definition***

Areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.

  - ***Management Objective***

Maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.

[5] SANBI 2017 Western Cape Biodiversity Spatial Plan (WCBSP)

- **ESA: Aquatic**

➢ ***Definition***

Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services.

➢ ***Management Objective***

Restore and/or manage to minimize impact on ecological processes and ecological infrastructure functioning, especially soil and water-related services, and to allow for faunal movement.

Will the proposed development and its alternatives have an impact on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)? If yes, please explain:	YES	~~NO~~
The preferred alternative layout will be developed on an area identified as a terrestrial CBA.		
Will the proposed development and its alternatives have an impact on any populations of threatened plant or animal species, and/or on any habitat that may contain a unique signature of plant or animal species? If yes, please explain:	YES	~~NO~~
The study site is heavily invaded by alien trees (*Acacia cyclops*) which has resulted in low indigenous species diversity for the area. The indigenous species will however recover once the aliens are cleared and follow up clearing occurs. Some alien clearing has been done on site. This is however not coordinated. Firewood is removed and the branches are left on site. Access to the site is difficult as a result of the branches that are spread over the site. The fire risk on site is high as a result. The northern and western portions of the site are classified as a terrestrial Critical Biodiversity Area ("CBA"). Please take note that this area was not classified as a terrestrial Critical Biodiversity Area in the previous assessment[6]. The drainage lines were classified as an Ecological Support Area. *Sideroxylon inerme* (Protected Milkwood Tree), *Agathosma muirii* (Vulnerable) *and Cullumia carlinoides* (Near Threatened) are the possible conservation worthy species that may occur on site. *Sideroxylon inerme* (Protected Milkwood Tree) was the only specie that was recorded during the survey. Most of the *Sideroxylon inerme* (Protected Milkwood Tree) recorded are within the drainage lines and the 32m buffer areas. However, some of them are not in these areas and may be impacted upon. They must be recorded during construction and protected as far as possible. Should any of the *Sideroxylon inerme* (Protected Milkwood Tree) need to be pruned or removed, a permit must be obtained.		
Describe the manner in which any other biological aspects will be impacted:		
Removal of terrestrial vegetation identified as a CBA will impact on biological aspects.		
Will the proposed development also trigger section 63 of the NEM: ICMA?	~~YES~~	NO
If yes, describe the following: (i) the extent to which the applicant has in the past complied with similar authorisations; (ii) whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development proposal or listed activity is consistent with the purpose for establishing and protecting those areas; (iii) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area; (iv) the likely socio-economic impact if the listed activity is authorised or is not authorised; (v) the likely impact of coastal environmental processes on the proposed development; (vi) whether the development proposal or listed activity— (a) is situated within coastal public property and is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations; (b) is situated within the coastal protection zone and is inconsistent with the purpose for which a coastal protection zone is established as set out in section 17 of NEM: ICMA; (c) is situated within coastal access land and is inconsistent with the purpose for which coastal access land is designated as set out in section 18 of NEM: ICMA; (d) is likely to cause irreversible or long-lasting adverse effects to any aspect of the coastal environment that cannot satisfactorily be mitigated; (e) is likely to be significantly damaged or prejudiced by dynamic coastal processes; (f) would substantially prejudice the achievement of any coastal management objective; or (g) would be contrary to the interests of the whole community; (vii) whether the very nature of the proposed activity or development requires it to be located within coastal public property, the coastal protection zone or coastal access land; (viii) whether the proposed development will provide important services to the public when using coastal public property, the coastal protection zone, coastal access land or a coastal protected area; and		

[6] bgis.sanbi.org 2014/02/06

(ix) the objects of NEM: ICMA, where applicable.
N/A

(c) Social and Economic aspects:

What is the expected capital value of the project on completion?	Unknown	
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the project?	Unknown	
Will the project contribute to service infrastructure?	YES	~~NO~~
Is the project a public amenity?	YES	~~NO~~
How many new employment opportunities will be created during the development phase?	± 30	
What is the expected value of the employment opportunities during the development phase?	Unknown	
What percentage of this will accrue to previously disadvantaged individuals?	90%	
How will this be ensured and monitored (please explain):		
Employment opportunities to be allocated, as according to municipal policy/guidelines which promote the employment and appointment of previously disadvantaged individuals.		
How many permanent new employment opportunities will be created during the operational phase of the project?	Unknown	
What is the expected current value of the employment opportunities during the first 10 years?	Unknown	
What percentage of this will accrue to previously disadvantaged individuals?	Unknown	
How will this be ensured and monitored (please explain):		
Employment opportunities to be allocated, as according to municipal policy/guidelines which promote the employment and appointment of previously disadvantaged individuals.		
Any other information related to the manner in which the socio-economic aspects will be impacted:		
-		

(d) Heritage and Cultural aspects:

A Notice of Intent to Develop was submitted to the HWC. Should any human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, all work must cease and immediately be reported to SAHRA or HWC.

2. WASTE AND EMISSIONS

(a) Waste (including effluent) management

Will the development proposal produce waste (including rubble) during the development phase?	YES	~~NO~~
If yes, indicate the types of waste (actual type of waste, *e.g.* oil, and whether hazardous or not) and estimated quantity per type?	$50m^3$ – Inert $1m^3$ – Contaminated soil $10m^3$ – Construction waste	
Construction and operational waste will be generated. Construction waste will consist of construction waste and possible contaminated soil as result of leaking or re-fuelling of construction vehicles. Inert and access soil waste will be recycled where possible on site for the levelling of the road foundations. Contaminated soil, tar and other construction waste that cannot be reused will be disposed at a licensed waste disposal facility.		

Will the development proposal produce waste during its operational phase?	YES	~~NO~~
If yes, indicate the types of waste (actual type of waste, *e.g.* oil, and whether hazardous or not) and estimated quantity per type?	Domestic Waste - ± 10 m^3/month	
Operational waste (hazardous and general) will be waste generated during the operations. All waste will link to Hessequa Municipal Waste Management services and the waste will be transported by the municipality to their landfill site. Waste that cannot be reused must be disposed of at licensed waste management facilities. Refer to the EMP operational section for list of possible operational wastes to be generated and the management and disposal thereof.		

Will the development proposal require waste to be treated / disposed of on site?	YES	~~NO~~
If yes, indicate the types of waste (actual type of waste, *e.g.* oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?	Domestic Waste - ± 10 m^3/month	
No treatment. Operational waste (hazardous and general) will be waste generated during the operations. All waste will link to Hessequa Municipal Waste Management services and the waste will be transported by the municipality to their landfill site. Waste that cannot be reused must be disposed of at licensed waste management facilities. Refer to the EMP operational section for list of possible operational wastes to be generated and the management and disposal thereof.		
If no, where and how will the waste be treated / disposed of? Please explain. Indicate the types of waste (actual type of waste, *e.g.* oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?		
N/A		
Has the municipality or relevant authority confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? If yes, provide written confirmation from the municipality or relevant authority.	~~YES~~	NO (Services confirmation still to be provided)

Will the development proposal produce waste that will be treated and/or disposed of at another facility other than into a municipal waste stream?	No

If yes, has this facility confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? Provide written confirmation from the facility.	~~YES~~	~~NO~~
Does the facility have an operating license? (If yes, please attach a copy of the licence.)	~~YES~~	NO

Facility name:	
Contact person:	
Cell:	Postal address:
Telephone:	Postal code:
Fax:	E-mail:

Describe the measures that will be taken to reduce, reuse or recycle waste:
As per standard EMP waste management requirements to reduce, reuse or recycle waste must be promoted and implemented as far as feasibly and reasonable practical and financially possible.

(b) Emissions into the atmosphere

Will the development proposal produce emissions that will be released into the atmosphere?	~~YES~~	NO
If yes, does this require approval in terms of relevant legislation?	~~YES~~	~~NO~~
If yes, what is the approximate volume(s) of emissions released into the atmosphere?	N/A	
Describe the emissions in terms of type and concentration and how these will be avoided/managed/treated/mitigated:		
N/A		

3. WATER USE

(a) Indicate the source(s) of water for the development proposal by highlighting the appropriate box(es).

Municipal	~~Water board~~	~~Groundwater~~	~~River, Stream, Dam or Lake~~	~~Other~~	~~The project will not use water~~

Note: Provide proof of assurance of water supply (e.g. Letter of confirmation from the municipality / water user associations, yield of borehole)

(b) If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	N/A	m^3

(c) Does the development proposal require a water use permit / license from DWS?	YES	~~NO~~
If yes, please submit the necessary application to the DWS and attach proof thereof to this application as an Appendix.		
N/A		

(d) Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:

N/A

4. POWER SUPPLY

(a) Describe the source of power *e.g.* municipality / Eskom / renewable energy source.

Eskom via municipal grid.

(b) If power supply is not available, where will power be sourced?

N/A

5. ENERGY EFFICIENCY

(a) Describe the design measures, if any, that have been taken to ensure that the development proposal will be energy efficient:

Energy efficient street lighting, energy efficient lighting inside homes

(b) Describe how alternative energy sources have been taken into account or been built into the design of the project, if any:

Solar power energy solution will be part of the development.

6. TRANSPORT, TRAFFIC AND ACCESS

Describe the impacts in terms of transport, traffic and access.

The proposed development will have direct access to the provincial road at an access point approved by the department. The rest of the roads will all be internal roads developed by the developer for the development.

7. NUISANCE FACTOR (NOISE, ODOUR, etc.)

Describe the potential nuisance factor or impacts in terms of noise and odours.

Noise

Additional noise due to construction activities and associate operational phase of the proposed development are expected to be produced, however construction noise will only be temporary and all possible mitigation measures will be implemented as per the requirements of the EMP to minimise noise production as far as possible. Noise levels produced during the construction and operational phases must not exceed the allowable maximum urban noise levels and must be regulated by the requirements of the EMP.

Odour

No odours are expected to be produced during the proposed construction and/or operational phases.

Note: Include impacts that the surrounding environment will have on the proposed development.

8. OTHER

Refer to Section G below for summary of potential positive and negative impacts as assessed.

SECTION G: IMPACT ASSESSMENT, IMPACT AVOIDANCE, MANAGEMENT, MITIGATION AND MONITORING MEASURES

1. METHODOLOGY USED IN DETERMINING AND RANKING ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH THE ALTERNATIVES

(a) Describe the **methodology** used in determining and ranking the nature, significance consequences, extent, duration and probability of potential environmental impacts and risks associated with the proposed development and alternatives.

The assessment criteria were developed based on the Department of Environmental Affair's

Integrated Environmental Management Series guideline documents.

Criteria	Description		
Nature	a description of what causes the effect, what will be affected, and how it will be affected.		
	Type	**Score**	**Description**
Extent (E)	None (No)	1	Footprint
	Site (S)	2	On site or within 100 m of the site
	Local (L)	3	Within a 20 km radius of the centre of the site
	Regional (R)	4	Beyond a 20 km radius of the site
	National (Na)	5	Crossing provincial boundaries or on a national / land wide scale
Duration (D)	Short term (S)	1	0 – 1 years
	Short to medium (S-M)	2	2 – 5 years
	Medium term (M)	3	5 – 15 years
	Long term (L)	4	> 15 years
	Permanent(P)	5	Will not cease
Magnitude (M)	Small (S)	0	will have no effect on the environment
	Minor (Mi)	2	will not result in an impact on processes
	Low (L)	4	will cause a slight impact on processes
	Moderate (Mo)	6	processes continuing but in a modified way
	High (H)	8	processes are altered to the extent that they temporarily cease
	Very high (VH)	10	results in complete destruction of patterns and permanent cessation of processes.
Probability (P) the likelihood of the impact actually occurring. Probability is estimated on a scale, and a score assigned	Very improbable (VP)	1	probably will not happen
	Improbable (I)	2	some possibility, but low likelihood
	Probable (P)	3	distinct possibility
	Highly probable (HP)	4	most likely
	Definite (D)	5	impact will occur regardless of any prevention measures
Significance (S)	Determined through a synthesis of the characteristics described above: **S = (E+D+M) x P** Significance can be assessed as low, medium or high		
Low: < 30 points:	The impact would not have a direct influence on the decision to develop in the area		
Medium: 30 – 60 points:	The impact could influence the decision to develop in the area unless it is effectively mitigated		
High: > 60 points:	The impact must have an influence on the decision process to develop in the area		
No significance	When no impact will occur or the impact will not affect the environment		
Status	Positive (+)		Negative (-)
The degree to which the impact can be reversed	Completely reversible (R)	90-100%	The impact can be mostly to completely reversed with the implementation of the correct mitigation and rehabilitation measures.
	Partly reversible (PR)	6-89%	The impact can be partly reversed providing that mitigation measures as stipulated in the EMP are implemented and rehabilitation measures are undertaken
	Irreversible (IR)	0-5%	The impact cannot be reversed, regardless of the mitigation or rehabilitation measures taking place
The degree to which the impact may cause irreplaceable loss of resources	Resource will not be lost (R)	1	The resource will not be lost or destroyed provided that mitigation and rehabilitation measures as stipulated in the EMP are implemented
	Resource may be partly destroyed (PR)	2	Partial loss or destruction of the resources will occur even though all management and mitigation measures as stipulated in the EMP are implemented
	Resource cannot be replaced (IR)	3	The resource cannot be replaced no matter which management or mitigation measures are implemented.
The degree to which the impact can be mitigated	Completely mitigatable (CM)	1	The impact can be completely mitigated providing that all management and mitigation measures as stipulated in the EMP are implemented
	Partly mitigatable (PM)	2	The impact cannot be completely mitigated even though all management and mitigation measures as stipulated in the EMP are implemented. Implementation of these measures will provide a measure of mitigatibility
	Un-mitigatable (UM)	3	The impact cannot be mitigated no matter which management or mitigation measures are implemented.

(b) Please describe any gaps in knowledge.

EAP is only knowledgeable with regards to the potential environmental and ecosystems aspects. Limited knowledge with regard to the potential services impacts at this stage as engineering services report and municipal services confirmation are still to be provided.

(c) Please describe the underlying assumptions.

In undertaking the investigation and compiling this report, the following have been assumed:

- The information provided by the client, specialists and engineers, is accurate and unbiased;
- The scope of this investigation is to assess the direct and cumulative environmental impacts associated with the development; and
- Should the proposed project be authorised, the applicant will incorporate the recommendations and mitigation measures outlined in this BAR, the EMP and the EA into the detailed design and construction contract specifications and operational management system for the proposed project.

(d) Please describe the uncertainties.

None at this stage.

(e) Describe adequacy of the assessment methods used.

Based on the EAP's assessment, information was provided to address the concerns and assess the impacts of the proposed development on the environment. Information as provided by the applicant, specialist, engineers and as collected by the EAP during site surveys etc. have been used to inform the current development proposal and impact assessment.

2. IDENTIFICATION, ASSESSMENT AND RANKING OF IMPACTS TO REACH THE PROPOSED ALTERNATIVES INCLUDING THE PREFERRED ALTERNATIVE WITHIN THE SITE

Note: In this section the focus is on the identified issues, impacts and risks that influenced the identification of the alternatives. This includes how aspects of the receiving environment have influenced the selection.

(a) List the identified impacts and risks for each alternative.

Alternative 1:	**Construction phase:** • Disturbance to subsurface geological layers (**Medium impact before mitigation and low impact with mitigation measures**); • Soil erosion and dust - (**Low impact before mitigation and low impact with mitigation measures**); • Impact of construction activities on surface and underground water pollution - (**High impact before mitigation and low impact with mitigation measures**); • Impact on drainage line / groundwater resources - (**High impact before mitigation and low impact with mitigation measures**); • Impact on surrounding and municipal planning policies and guidelines - (**Medium impact before mitigation and low impact with mitigation measures**); • Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (**High impact before mitigation and Medium impact with mitigation measures**); • Increased jobs - (**No impact before mitigation and positive impact with mitigation measures**); • Increased traffic due to the construction activities requiring various vehicles to come onto and leave the site - (**Low impact before mitigation and low impact with mitigation measures**); • The potential impact of the proposed development on archaeological, paleontological and heritage remains - (**Low impact before mitigation and low impact with mitigation measures**); • Noise due to construction machinery - (**Low impact before mitigation and low impact with mitigation measures**); • Visual impact of infrastructure and services establishment - (**Low impact before mitigation and low impact with mitigation measures**). **Operational phase:** • Disturbance to subsurface geological layers - (**Medium impact before mitigation and low impact with mitigation measures**); • Soil erosion and dust - (**Medium impact before mitigation and low impact with mitigation measures**); • Impact of operation activities on surface and underground water pollution -

	(**High impact before mitigation and low impact with mitigation measures**); • Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(High impact before mitigation and Medium impact with mitigation measures);** **<u>Decommissioning phase:</u>** • Similar to impacts associated with construction phase.
Alternative 2:	**<u>Construction phase:</u>** • Disturbance to subsurface geological layers (**Medium impact before mitigation and low impact with mitigation measures**); • Soil erosion and dust - (**Low impact before mitigation and low impact with mitigation measures**); • Impact of construction activities on surface and underground water pollution - (**High impact before mitigation and low impact with mitigation measures**); • Impact on drainage line / groundwater resources - (**High impact before mitigation and low impact with mitigation measures**); • Impact on surrounding and municipal planning policies and guidelines - (**Medium impact before mitigation and low impact with mitigation measures**); • Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (**High impact before mitigation and Medium impact with mitigation measures**); • Increased jobs - (**No impact before mitigation and positive impact with mitigation measures**); • Increased traffic due to the construction activities requiring various vehicles to come onto and leave the site - (**Low impact before mitigation and low impact with mitigation measures**); • The potential impact of the proposed development on archaeological, paleontological and heritage remains - (**Low impact before mitigation and low impact with mitigation measures**); • Noise due to construction machinery - (**Low impact before mitigation and low impact with mitigation measures**); • Visual impact of infrastructure and services establishment - (**Low impact before mitigation and low impact with mitigation measures**). **<u>Operational phase:</u>** • Disturbance to subsurface geological layers - (**Medium impact before mitigation and low impact with mitigation measures**); • Soil erosion and dust - (**Medium impact before mitigation and low impact with mitigation measures**); • Impact of operation activities on surface and underground water pollution - (**High impact before mitigation and low impact with mitigation measures**); • Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(High impact before mitigation and Medium impact with mitigation measures);** **<u>Decommissioning phase:</u>** • Similar to impacts associated with construction phase.
No-go Alternative:	The No-Go option will result in the site remaining as is at present.

(b) Describe the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be reversed; may cause irreplaceable loss of resources; and can be avoided, managed or mitigated.

The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. (The EAP has to select the relevant impacts identified in blue in the table below for each alternative and repeat the table for each impact and risk).

Alternative 1 : Preferred Layout	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Construction activities can affect the underlying geological layers on site to some extent.**

Nature of impact:	**Disturbance to subsurface geological layers**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 2 (two to five years)**
Consequence of impact or risk:	**Construction and excavation activities can affect the underlying geological layers on site to some extent.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surrounding subsurface geological layers**
Cumulative impact prior to mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Demarcation and work within demarcated areas only.**
Residual impacts:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Maintenance activities can affect the underlying geological layers on site to some extent.**
Nature of impact:	**Disturbance to subsurface geological layers**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 2 (two to five years)**
Consequence of impact or risk:	**Construction and excavation activities can affect the underlying geological layers on site to some extent.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surrounding subsurface geological layers**
Cumulative impact prior to mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Demarcation and work within demarcated areas only.**
Residual impacts:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	
Nature of impact:	**Disturbance to subsurface geological layers**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 2 (two to five years)**
Consequence of impact or risk:	**Construction and excavation activities can affect the underlying geological layers on site to some extent.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surrounding subsurface geological layers**

Cumulative impact prior to mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Demarcation and work within demarcated areas only.**
Residual impacts:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**

Alternative 2 : Alternative Layout	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Construction activities can affect the underlying geological layers on site to some extent.**
Nature of impact:	**Disturbance to subsurface geological layers**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 2 (two to five years)**
Consequence of impact or risk:	**Construction and excavation activities can affect the underlying geological layers on site to some extent.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surrounding subsurface geological layers**
Cumulative impact prior to mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Demarcation and work within demarcated areas only.**
Residual impacts:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Maintenance activities can affect the underlying geological layers on site to some extent.**
Nature of impact:	**Disturbance to subsurface geological layers**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 2 (two to five years)**
Consequence of impact or risk:	**Construction and excavation activities can affect the underlying geological layers on site to some extent.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surrounding subsurface geological layers**
Cumulative impact prior to mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**

Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Demarcation and work within demarcated areas only.**
Residual impacts:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	
Nature of impact:	**Disturbance to subsurface geological layers**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 2 (two to five years)**
Consequence of impact or risk:	**Construction and excavation activities can affect the underlying geological layers on site to some extent.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surrounding subsurface geological layers**
Cumulative impact prior to mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Demarcation and work within demarcated areas only.**
Residual impacts:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**

Alternative 1 : Preferred Layout	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Soil erosion and dust**
Nature of impact:	**Construction activities will cause a disturbance to the soil and the vegetation cover on the site. This disturbance, unless carefully managed, could spread as a result.** **Soil erosion can occur due to wind (wind erosion cause dust pollution); and due to overland storm water flow should rains fall during construction. Due to the sloping nature of the terrain, it is unlikely that a shallow perched water table will develop on site. Residual soils are also expected to have a very low permeability and due to low infiltration rates and the sloping terrain, water will tend to runoff from surface in a downslope direction.** **Soil erosion can occur due to wind (wind erosion causes dust pollution).**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 5 (permanent)**
Consequence of impact or risk:	**Construction and excavation activities can result in erosion and dust.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surface area can result in erosion and dust generation**
Cumulative impact prior to mitigation:	**Exposing soil may lead to erosion and dust generation if not mitigated.**
Significance rating of impact prior to mitigation	**16 - Low**

(e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Control access to roads and other areas to avoid disturbance of areas outside the development footprint.** **Undertake dust suppression as needed.** **Personnel should be restricted to the camp site and immediate construction areas only.** **Undertake storm water management measures as required, with special attention to storm water management that may be required upslope.** **Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Soil erosion and dust**
Nature of impact:	**Operational activities will cause a disturbance to the soil and the vegetation cover on the site. This disturbance, unless carefully managed, could spread as a result.** **Soil erosion can occur due to wind (wind erosion cause dust pollution); and due to overland storm water flow should rains fall during construction. Due to the sloping nature of the terrain, it is unlikely that a shallow perched water table will develop on site. Residual soils are also expected to have a very low permeability and due to low infiltration rates and the sloping terrain, water will tend to runoff from surface in a downslope direction.** **Soil erosion can occur due to wind (wind erosion causes dust pollution).**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 5 (permanent)**
Consequence of impact or risk:	**Construction and excavation activities can result in erosion and dust.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surface area can result in erosion and dust generation**
Cumulative impact prior to mitigation:	**Exposing soil may lead to erosion and dust generation if not mitigated.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Control access to roads and other areas to avoid disturbance of areas outside the development footprint.** **Undertake dust suppression as needed.** **Personnel should be restricted to the camp site and immediate areas only.** **Undertake storm water management measures as required, with special attention to storm water management that may be required upslope.** **Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Soil erosion and dust**
Nature of impact:	**Construction activities will cause a disturbance to the soil and the**

	vegetation cover on the site. This disturbance, unless carefully managed, could spread as a result. **Soil erosion can occur due to wind (wind erosion cause dust pollution); and due to overland storm water flow should rains fall during construction. Due to the sloping nature of the terrain, it is unlikely that a shallow perched water table will develop on site. Residual soils are also expected to have a very low permeability and due to low infiltration rates and the sloping terrain, water will tend to runoff from surface in a downslope direction.** **Soil erosion can occur due to wind (wind erosion causes dust pollution).**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 5 (permanent)**
Consequence of impact or risk:	**Construction and excavation activities can result in erosion and dust.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surface area can result in erosion and dust generation**
Cumulative impact prior to mitigation:	**Exposing soil may lead to erosion and dust generation if not mitigated.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Control access to roads and other areas to avoid disturbance of areas outside the development footprint.** **Undertake dust suppression as needed.** **Personnel should be restricted to the camp site and immediate construction areas only.** **Undertake storm water management measures as required, with special attention to storm water management that may be required upslope.** **Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**

Alternative 2 : Alternative Layout	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Soil erosion and dust**
Nature of impact:	**Construction activities will cause a disturbance to the soil and the vegetation cover on the site. This disturbance, unless carefully managed, could spread as a result.** **Soil erosion can occur due to wind (wind erosion cause dust pollution); and due to overland storm water flow should rains fall during construction. Due to the sloping nature of the terrain, it is unlikely that a shallow perched water table will develop on site. Residual soils are also expected to have a very low permeability and due to low infiltration rates and the sloping terrain, water will tend to runoff from surface in a downslope direction.** **Soil erosion can occur due to wind (wind erosion causes dust pollution).**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 5 (permanent)**
Consequence of impact or risk:	**Construction and excavation activities can result in erosion and dust.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surface area can result in erosion and dust generation**
Cumulative impact prior to mitigation:	**Exposing soil may lead to erosion and dust generation if not**

	mitigated.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Control access to roads and other areas to avoid disturbance of areas outside the development footprint.** **Undertake dust suppression as needed.** **Personnel should be restricted to the camp site and immediate construction areas only.** **Undertake storm water management measures as required, with special attention to storm water management that may be required upslope.** **Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Soil erosion and dust**
Nature of impact:	**Operational activities will cause a disturbance to the soil and the vegetation cover on the site. This disturbance, unless carefully managed, could spread as a result.** **Soil erosion can occur due to wind (wind erosion cause dust pollution); and due to overland storm water flow should rains fall during construction. Due to the sloping nature of the terrain, it is unlikely that a shallow perched water table will develop on site. Residual soils are also expected to have a very low permeability and due to low infiltration rates and the sloping terrain, water will tend to runoff from surface in a downslope direction.** **Soil erosion can occur due to wind (wind erosion causes dust pollution).**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 5 (permanent)**
Consequence of impact or risk:	**Construction and excavation activities can result in erosion and dust.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surface area can result in erosion and dust generation**
Cumulative impact prior to mitigation:	**Exposing soil may lead to erosion and dust generation if not mitigated.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Control access to roads and other areas to avoid disturbance of areas outside the development footprint.** **Undertake dust suppression as needed.** **Personnel should be restricted to the camp site and immediate areas only.** **Undertake storm water management measures as required, with special attention to storm water management that may be required upslope.** **Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
DECOMMISSIONING AND CLOSURE PHASE	

Potential impact and risk:	**Soil erosion and dust**
Nature of impact:	**Construction activities will cause a disturbance to the soil and the vegetation cover on the site. This disturbance, unless carefully managed, could spread as a result.** **Soil erosion can occur due to wind (wind erosion cause dust pollution); and due to overland storm water flow should rains fall during construction. Due to the sloping nature of the terrain, it is unlikely that a shallow perched water table will develop on site. Residual soils are also expected to have a very low permeability and due to low infiltration rates and the sloping terrain, water will tend to runoff from surface in a downslope direction.** **Soil erosion can occur due to wind (wind erosion causes dust pollution).**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 5 (permanent)**
Consequence of impact or risk:	**Construction and excavation activities can result in erosion and dust.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Disturbance to surface area can result in erosion and dust generation**
Cumulative impact prior to mitigation:	**Exposing soil may lead to erosion and dust generation if not mitigated.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Control access to roads and other areas to avoid disturbance of areas outside the development footprint.** **Undertake dust suppression as needed.** **Personnel should be restricted to the camp site and immediate construction areas only.** **Undertake storm water management measures as required, with special attention to storm water management that may be required upslope.** **Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**

Alternative 1 : Preferred Layout	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**Diesel and oil spills affecting ground and surface water.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**

Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**28 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**Diesel and oil spills affecting ground and surface water.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**28 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**Diesel and oil spills affecting ground and surface water.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**28 - Low**

Alternative 2 : Alternative Layout	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**Diesel and oil spills affecting ground and surface water.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**

Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**28 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**Diesel and oil spills affecting ground and surface water.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**28 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**Diesel and oil spills affecting ground and surface water.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**

Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**28 - Low**

Alternative 1 : Preferred Layout	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact on surrounding and municipal planning policies and guidelines.**
Nature of impact:	**The site is earmarked for development and included in urban edge.**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact prior to mitigation:	**Impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Rezoning application submitted.**
Residual impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact post mitigation:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact on surrounding and municipal planning policies and guidelines.**
Nature of impact:	**The site is earmarked for development and included in urban edge.**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact prior to mitigation:	**Impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Rezoning application submitted.**
Residual impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact post mitigation:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact on surrounding and municipal planning policies and guidelines.**
Nature of impact:	**The site is earmarked for development and included in urban edge.**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**

Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact prior to mitigation:	**Impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Rezoning application submitted.**
Residual impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact post mitigation:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**

Alternative 2 : Alternative Layout	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact on surrounding and municipal planning policies and guidelines.**
Nature of impact:	**The site is earmarked for development and included in urban edge.**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact prior to mitigation:	**Impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Rezoning application submitted.**
Residual impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact post mitigation:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact on surrounding and municipal planning policies and guidelines.**
Nature of impact:	**The site is earmarked for development and included in urban edge.**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact prior to mitigation:	**Impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**

Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Rezoning application submitted.**
Residual impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact post mitigation:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact on surrounding and municipal planning policies and guidelines.**
Nature of impact:	**The site is earmarked for development and included in urban edge.**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact prior to mitigation:	**Impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Rezoning application submitted.**
Residual impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact post mitigation:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**

Alternative 1 : Preferred Layout	**Biological Aspect Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area.**
Nature of impact:	**The two non-perennial drainage lines and a 32m buffer area must be excluded from the development area and zoned as open space in order to protect the Ecological Support Area and to allow for ecological functioning to continue. It is recommended that road crossings over the drainage lines be avoided. Should it not be possible to avoid crossing the drainage lines, this crossing must be limited to one crossing and the crossing must be closed to the upper section (Eden Road) where the existing road crosses the drainage line.** **Method statements for the construction of the crossing over the drainage line must be submitted to the freshwater ecologist for approval and an application must be submitted to the Breede Gouritz Water Catchment Management Agency for approval. All alien plants must be cleared and the drainage lines and its buffers maintained and allowed to rehabilitate.** **The study site is heavily invaded by alien trees (*Acacia cyclops*) which has resulted in low indigenous species diversity for the area. The indigenous species will however recover once the aliens are cleared and follow up clearing occurs. Some alien clearing has been done on site. This is however not coordinated. Firewood is removed and the branches are left on site. Access to the site is difficult as a result of the branches that are spread over the site. The fire risk on site is high as a result.** **The northern and western portions of the site are classified as a terrestrial Critical Biodiversity Area ("CBA"). Please take note that this area was not classified as a terrestrial Critical Biodiversity Area in the**

	previous assessment[7]. The drainage lines were classified as an Ecological Support Area. *Sideroxylon inerme* (Protected Milkwood Tree), *Agathosma muirii* (Vulnerable) *and Cullumia carlinoides* (Near Threatened) are the possible conservation worthy species that may occur on site. *Sideroxylon inerme* (Protected Milkwood Tree) was the only specie that was recorded during the survey. Most of the *Sideroxylon inerme* (Protected Milkwood Tree) recorded are within the drainage lines and the 32m buffer areas. **However, some of them are not in these areas and may be impacted upon. They must be recorded during construction and protected as far as possible. Should any of the *Sideroxylon inerme* (Protected Milkwood Tree) need to be pruned or removed, a permit must be obtained.** **There is no question that the receiving environment is botanically important and should be treated as such since it has numerous endemic species and is viewed as threatened habitat at a fine-scale planning level. However, this does not preclude scope for considering housing infrastructure on condition that the sensitivities of the environment are observed. On this basis it is concluded that from a botanical perspective the drainage lines and the buffer areas should be completely excluded from further consideration. The rest of the site should only be considered if strong mitigation measures such as ecological corridors and a biodiversity offset area can be assured and active woody alien invasive eradication is guaranteed. In this way an important area of 'limestone fynbos' could be conserved.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Work within site boundaries with no construction activities outside the boundary of the proposed development. Biodiversity offset area agreed with CapeNature.**
Residual impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact post mitigation:	**Possible impact on indigenous vegetation and habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**36 - Medium**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area.**
Nature of impact:	**The two non-perrenial drainage lines and its buffers and non developed areas must be maintained.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon indigenous vegetation and habitat.**

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Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**The non developed areas, non-perrenial drainage lines and its buffers must be managed and impacts to it prevented and alien vegetation cleared.**
Residual impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact post mitigation:	**Possible impact on indigenous vegetation and habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area.**
Nature of impact:	**The two non-perennial drainage lines and a 32m buffer area must be excluded from the development area and zoned as open space in order to protect the Ecological Support Area and to allow for ecological functioning to continue. It is recommended that road crossings over the drainage lines be avoided. Should it not be possible to avoid crossing the drainage lines, this crossing must be limited to one crossing and the crossing must be closed to the upper section (Eden Road) where the existing road crosses the drainage line.** **Method statements for the construction of the crossing over the drainage line must be submitted to the freshwater ecologist for approval and an application must be submitted to the Breede Gouritz Water Catchment Management Agency for approval. All alien plants must be cleared and the drainage lines and its buffers maintained and allowed to rehabilitate.** **The study site is heavily invaded by alien trees (*Acacia cyclops*) which has resulted in low indigenous species diversity for the area. The indigenous species will however recover once the aliens are cleared and follow up clearing occurs. Some alien clearing has been done on site. This is however not coordinated. Firewood is removed and the branches are left on site. Access to the site is difficult as a result of the branches that are spread over the site. The fire risk on site is high as a result.** **The northern and western portions of the site are classified as a terrestrial Critical Biodiversity Area ("CBA"). Please take note that this area was not classified as a terrestrial Critical Biodiversity Area in the previous assessment[8]. The drainage lines were classified as an Ecological Support Area. *Sideroxylon inerme* (Protected Milkwood Tree), *Agathosma muirii* (Vulnerable) *and Cullumia carlinoides* (Near Threatened) are the possible conservation worthy species that may occur on site. *Sideroxylon inerme* (Protected Milkwood Tree) was the only specie that was recorded during the survey. Most of the *Sideroxylon inerme* (Protected Milkwood Tree) recorded are within the drainage lines and the 32m buffer areas.** **However, some of them are not in these areas and may be impacted upon. They must be recorded during construction and protected as far as possible. Should any of the *Sideroxylon inerme* (Protected Milkwood Tree) need to be pruned or removed, a permit must be obtained.** **There is no question that the receiving environment is botanically important and should be treated as such since it has numerous endemic species and is viewed as threatened habitat at a fine-scale planning level. However, this does not preclude scope for considering housing infrastructure on condition that the sensitivities of the environment are observed. On this basis it is concluded that from a botanical perspective the drainage lines and the buffer areas should be completely excluded from further consideration. The rest of the site should only be considered if strong mitigation measures such as ecological corridors and a biodiversity offset area can be assured and active woody alien invasive eradication is guaranteed. In this**

[8] bgis.sanbi.org 2014/02/06

	way an important area of 'limestone fynbos' could be conserved.
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Work within site boundaries with no construction activities outside the boundary of the proposed development. Biodiversity offset area agreed with CapeNature.**
Residual impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact post mitigation:	**Possible impact on indigenous vegetation and habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**36 - Medium**

Alternative 2 : Alternative Layout	**Biological Aspect Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area.**
Nature of impact:	**The two non-perennial drainage lines and a 32m buffer area must be excluded from the development area and zoned as open space in order to protect the Ecological Support Area and to allow for ecological functioning to continue. It is recommended that road crossings over the drainage lines be avoided. Should it not be possible to avoid crossing the drainage lines, this crossing must be limited to one crossing and the crossing must be closed to the upper section (Eden Road) where the existing road crosses the drainage line.** **Method statements for the construction of the crossing over the drainage line must be submitted to the freshwater ecologist for approval and an application must be submitted to the Breede Gouritz Water Catchment Management Agency for approval. All alien plants must be cleared and the drainage lines and its buffers maintained and allowed to rehabilitate.** **The study site is heavily invaded by alien trees (*Acacia cyclops*) which has resulted in low indigenous species diversity for the area. The indigenous species will however recover once the aliens are cleared and follow up clearing occurs. Some alien clearing has been done on site. This is however not coordinated. Firewood is removed and the branches are left on site. Access to the site is difficult as a result of the branches that are spread over the site. The fire risk on site is high as a result.** **The northern and western portions of the site are classified as a terrestrial Critical Biodiversity Area ("CBA"). Please take note that this area was not classified as a terrestrial Critical Biodiversity Area in the previous assessment[9]. The drainage lines were classified as an Ecological Support Area. *Sideroxylon inerme* (Protected Milkwood Tree), *Agathosma muirii* (Vulnerable) *and Cullumia carlinoides* (Near Threatened) are the possible conservation worthy species that may occur on site. *Sideroxylon inerme* (Protected Milkwood Tree) was the only specie that was recorded during the survey. Most of the *Sideroxylon inerme* (Protected Milkwood Tree) recorded are within the drainage lines and the 32m buffer areas.** **However, some of them are not in these areas and may be impacted**

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	upon. They must be recorded during construction and protected as far as possible. Should any of the *Sideroxylon inerme* (Protected Milkwood Tree) need to be pruned or removed, a permit must be obtained. **There is no question that the receiving environment is botanically important and should be treated as such since it has numerous endemic species and is viewed as threatened habitat at a fine-scale planning level. However, this does not preclude scope for considering housing infrastructure on condition that the sensitivities of the environment are observed. On this basis it is concluded that from a botanical perspective the drainage lines and the buffer areas should be completely excluded from further consideration. The rest of the site should only be considered if strong mitigation measures such as ecological corridors and a biodiversity offset area can be assured and active woody alien invasive eradication is guaranteed. In this way an important area of 'limestone fynbos' could be conserved.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Work within site boundaries with no construction activities outside the boundary of the proposed development. Biodiversity offset area agreed with CapeNature.**
Residual impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact post mitigation:	**Possible impact on indigenous vegetation and habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**36 - Medium**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area.**
Nature of impact:	**The two non-perrenial drainage lines and its buffers and non developed areas must be maintained.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**The non developed areas, non-perrenial drainage lines and its buffers must be managed and impacts to it prevented and alien vegetation cleared.**
Residual impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact post mitigation:	**Possible impact on indigenous vegetation and habitats.**
Significance rating of impact after mitigation	**8 - Low**

(e.g. Low, Medium, Medium-High, High, or Very-High)	
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area.**
Nature of impact:	**The two non-perennial drainage lines and a 32m buffer area must be excluded from the development area and zoned as open space in order to protect the Ecological Support Area and to allow for ecological functioning to continue. It is recommended that road crossings over the drainage lines be avoided. Should it not be possible to avoid crossing the drainage lines, this crossing must be limited to one crossing and the crossing must be closed to the upper section (Eden Road) where the existing road crosses the drainage line.** **Method statements for the construction of the crossing over the drainage line must be submitted to the freshwater ecologist for approval and an application must be submitted to the Breede Gouritz Water Catchment Management Agency for approval. All alien plants must be cleared and the drainage lines and its buffers maintained and allowed to rehabilitate.** **The study site is heavily invaded by alien trees (*Acacia cyclops*) which has resulted in low indigenous species diversity for the area. The indigenous species will however recover once the aliens are cleared and follow up clearing occurs. Some alien clearing has been done on site. This is however not coordinated. Firewood is removed and the branches are left on site. Access to the site is difficult as a result of the branches that are spread over the site. The fire risk on site is high as a result.** **The northern and western portions of the site are classified as a terrestrial Critical Biodiversity Area ("CBA"). Please take note that this area was not classified as a terrestrial Critical Biodiversity Area in the previous assessment[10]. The drainage lines were classified as an Ecological Support Area. *Sideroxylon inerme* (Protected Milkwood Tree), *Agathosma muirii* (Vulnerable) *and Cullumia carlinoides* (Near Threatened) are the possible conservation worthy species that may occur on site. *Sideroxylon inerme* (Protected Milkwood Tree) was the only specie that was recorded during the survey. Most of the *Sideroxylon inerme* (Protected Milkwood Tree) recorded are within the drainage lines and the 32m buffer areas.** **However, some of them are not in these areas and may be impacted upon. They must be recorded during construction and protected as far as possible. Should any of the *Sideroxylon inerme* (Protected Milkwood Tree) need to be pruned or removed, a permit must be obtained.** **There is no question that the receiving environment is botanically important and should be treated as such since it has numerous endemic species and is viewed as threatened habitat at a fine-scale planning level. However, this does not preclude scope for considering housing infrastructure on condition that the sensitivities of the environment are observed. On this basis it is concluded that from a botanical perspective the drainage lines and the buffer areas should be completely excluded from further consideration. The rest of the site should only be considered if strong mitigation measures such as ecological corridors and a biodiversity offset area can be assured and active woody alien invasive eradication is guaranteed. In this way an important area of 'limestone fynbos' could be conserved.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon indigenous vegetation and habitat.**

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Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Work within site boundaries with no construction activities outside the boundary of the proposed development. Biodiversity offset area agreed with CapeNature.**
Residual impacts:	**Loss of significantly impacted upon indigenous vegetation and habitat.**
Cumulative impact post mitigation:	**Possible impact on indigenous vegetation and habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**36 - Medium**

Alternative 1 : Preferred Layout	**Socio-Economic Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Increased jobs**
Nature of impact:	**Temporary construction jobs will be created. The locals may not have sufficient skills to utilize the employment opportunities and "others (work force and job seekers)" may be employed from outside the community.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Influx of contract workers due to lack of skills.** **Influx of job seekers due to jobs created.** **Littering.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Local contractors, employing or seeking to employ local (historically disadvantaged individuals (HDIs) from the region who are suitably qualified, should get preference.** **The municipality, local community and local community organizations should be informed of the project and potential job opportunities by the developer.**
Residual impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact post mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
OPERATIONAL PHASE	
Potential impact and risk:	**Increased jobs**
Nature of impact:	**Operational as a result of maintenance and cleaning jobs will be created. The locals may not have sufficient skills to utilize the employment opportunities and "others (work force and job seekers)" may be employed from outside the community.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Influx of contract workers due to lack of skills.** **Influx of job seekers due to jobs created.** **Littering.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
Degree to which the impact can be avoided:	**High**

Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Local contractors, employing or seeking to employ local (historically disadvantaged individuals (HDIs) from the region who are suitably qualified, should get preference.** **The municipality, local community and local community organizations should be informed of the project and potential job opportunities by the developer.**
Residual impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact post mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Increased jobs**
Nature of impact:	**Temporary construction jobs will be created. The locals may not have sufficient skills to utilize the employment opportunities and "others (work force and job seekers)" may be employed from outside the community.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Influx of contract workers due to lack of skills.** **Influx of job seekers due to jobs created.** **Littering.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Local contractors, employing or seeking to employ local (historically disadvantaged individuals (HDIs) from the region who are suitably qualified, should get preference.** **The municipality, local community and local community organizations should be informed of the project and potential job opportunities by the developer.**
Residual impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact post mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**

Alternative 2 : Alternative Layout	**Socio-Economic Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Increased jobs**
Nature of impact:	**Temporary construction jobs will be created. The locals may not have sufficient skills to utilize the employment opportunities and "others (work force and job seekers)" may be employed from outside the community.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Influx of contract workers due to lack of skills.** **Influx of job seekers due to jobs created.** **Littering.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**

Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Local contractors, employing or seeking to employ local (historically disadvantaged individuals (HDIs) from the region who are suitably qualified, should get preference.** **The municipality, local community and local community organizations should be informed of the project and potential job opportunities by the developer.**
Residual impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact post mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
OPERATIONAL PHASE	
Potential impact and risk:	**Increased jobs**
Nature of impact:	**Operational as a result of maintenance and cleaning jobs will be created. The locals may not have sufficient skills to utilize the employment opportunities and "others (work force and job seekers)" may be employed from outside the community.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Influx of contract workers due to lack of skills.** **Influx of job seekers due to jobs created.** **Littering.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Local contractors, employing or seeking to employ local (historically disadvantaged individuals (HDIs) from the region who are suitably qualified, should get preference.** **The municipality, local community and local community organizations should be informed of the project and potential job opportunities by the developer.**
Residual impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact post mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Increased jobs**
Nature of impact:	**Temporary construction jobs will be created. The locals may not have sufficient skills to utilize the employment opportunities and "others (work force and job seekers)" may be employed from outside the community.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Influx of contract workers due to lack of skills.** **Influx of job seekers due to jobs created.** **Littering.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Local contractors, employing or seeking to employ local (historically disadvantaged individuals (HDIs) from the region who are suitably qualified, should get preference.**

	The municipality, local community and local community organizations should be informed of the project and potential job opportunities by the developer.
Residual impacts:	**Loss of significantly impacted upon job opportunities.**
Cumulative impact post mitigation:	**Loss of significantly impacted upon job opportunities.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**

Alternative 1 : Preferred Layout	**Socio-Economic Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Traffic Impacts**
Nature of impact:	**The construction machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 2 (2 – 5 years)**
Consequence of impact or risk:	**The construction machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact prior to mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Avoid peak traffic hours (07h00 – 08h00 and 17h00 – 18h00) as far as possible**
Residual impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact post mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Traffic Impacts**
Nature of impact:	**Increased traffic due to the use of road.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact prior to mitigation:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**None**

Residual impacts:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact post mitigation:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Traffic Impacts**
Nature of impact:	**The construction machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 2 (2 – 5 years)**
Consequence of impact or risk:	**The construction machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact prior to mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Avoid peak traffic hours (07h00 – 08h00 and 17h00 – 18h00) as far as possible**
Residual impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact post mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**

Alternative 2 : Alternative Layout	**Socio-Economic Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Traffic Impacts**
Nature of impact:	**The construction machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 2 (2 – 5 years)**
Consequence of impact or risk:	**The construction machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact prior to mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**

Proposed mitigation:	**Avoid peak traffic hours (07h00 – 08h00 and 17h00 – 18h00) as far as possible**
Residual impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact post mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Traffic Impacts**
Nature of impact:	**Increased traffic due to the use of road.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**Low**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact prior to mitigation:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**None**
Residual impacts:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact post mitigation:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Traffic Impacts**
Nature of impact:	**The construction machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 2 (2 – 5 years)**
Consequence of impact or risk:	**The construction machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact prior to mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Avoid peak traffic hours (07h00 – 08h00 and 17h00 – 18h00) as far as possible**

Residual impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact post mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**

Alternative 1 : Preferred Layout	**Cultural-Historical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains.**
Nature of impact:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Cumulative impact prior to mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Should any burials, fossils or other historical material be encountered during construction, work must cease immediately and HWC must be contacted.**
Residual impacts:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Cumulative impact post mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
OPERATIONAL PHASE	
Potential impact and risk:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains.**
Nature of impact:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Cumulative impact prior to mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**

Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Should any burials, fossils or other historical material be encountered during construction, work must cease immediately and HWC must be contacted.**
Residual impacts:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Cumulative impact post mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains.**
Nature of impact:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Cumulative impact prior to mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Should any burials, fossils or other historical material be encountered during construction, work must cease immediately and HWC must be contacted.**
Residual impacts:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Cumulative impact post mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**

Alternative 2 : Alternative Layout	**Cultural-Historical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains.**
Nature of impact:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Cumulative impact prior to mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the**

	loss of such features.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Should any burials, fossils or other historical material be encountered during construction, work must cease immediately and HWC must be contacted.**
Residual impacts:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Cumulative impact post mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
OPERATIONAL PHASE	
Potential impact and risk:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains.**
Nature of impact:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Cumulative impact prior to mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Should any burials, fossils or other historical material be encountered during construction, work must cease immediately and HWC must be contacted.**
Residual impacts:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Cumulative impact post mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains.**
Nature of impact:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**High**
Degree to which the impact can be reversed:	**High**
Indirect impacts:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**

Cumulative impact prior to mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**High**
Proposed mitigation:	**Should any burials, fossils or other historical material be encountered during construction, work must cease immediately and HWC must be contacted.**
Residual impacts:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Cumulative impact post mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**

Alternative 1 : Preferred Layout	**Visual Impact**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Visual Impact on surrounding land uses**
Nature of impact:	**Visual intrusion of construction vehicles and activities on site locally, including lighting; disturbance to adjacent residential areas**
Extent and duration of impact:	**Local, short term**
Consequence of impact or risk:	**Negative impact on local residents of the proposed changes to the local visual and scenic resources**
Probability of occurrence:	**Definite**
Degree to which the impact may cause irreplaceable loss of resources:	**Moderate, visual and scenic resources would be negatively affected**
Degree to which the impact can be reversed:	**Low**
Indirect impacts:	**None, apart from the short- term increase in vehicle movements servicing the construction site**
Cumulative impact prior to mitigation:	**Low, none**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**
Degree to which the impact can be avoided:	**Low**
Degree to which the impact can be managed:	**Medium,**
Degree to which the impact can be mitigated:	**Medium**
Proposed mitigation:	**None**
Residual impacts:	**Change of local landscape character; some limited but permanent ground contamination could occur.**
Cumulative impact post mitigation:	**None**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Visual Impact on surrounding land uses**
Nature of impact:	**Impact on local receptors of the change in site character from rural to a road corridor**
Extent and duration of impact:	**Local, long term**
Consequence of impact or risk:	**Negative impact on local residents of the proposed changes to the local visual and scenic resources**
Probability of occurrence:	**Highly Probable**
Degree to which the impact may cause irreplaceable loss of resources:	**Moderate in the long term, visual and scenic resources would be negatively affected**
Degree to which the impact can be reversed:	**Low, the development could be de-commissioned, and the site cleared but there could be ground contamination**
Indirect impacts:	**None**
Cumulative impact prior to mitigation:	**The development could be visually experienced as additive**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**
Degree to which the impact can be avoided:	**Low**

Degree to which the impact can be managed:	**Medium**
Degree to which the impact can be mitigated:	**Medium**
Proposed mitigation:	**Provision of substantial tree and shrub planting.**
Residual impacts:	**Change of site and local landscape character; possible impacts on flora and fauna**
Cumulative impact post mitigation:	**The increase in traffic would not be reduced by mitigation measures, but the measures are critical for reasons of visual impact**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Moderate, due to street lighting for which only limited mitigation is feasible**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Visual Impact on surrounding land uses**
Nature of impact:	**Visual intrusion of construction vehicles and activities on site locally, including lighting; disturbance to adjacent residential areas**
Extent and duration of impact:	**Local, short term**
Consequence of impact or risk:	**Negative impact on local residents of the proposed changes to the local visual and scenic resources**
Probability of occurrence:	**Definite**
Degree to which the impact may cause irreplaceable loss of resources:	**Moderate, visual and scenic resources would be negatively affected**
Degree to which the impact can be reversed:	**Low**
Indirect impacts:	**None, apart from the short- term increase in vehicle movements servicing the construction site**
Cumulative impact prior to mitigation:	**Low, none**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**
Degree to which the impact can be avoided:	**Low**
Degree to which the impact can be managed:	**Medium,**
Degree to which the impact can be mitigated:	**Medium**
Proposed mitigation:	**None**
Residual impacts:	**Change of local landscape character; some limited but permanent ground contamination could occur.**
Cumulative impact post mitigation:	**None**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very Low**

Alternative 2 : Alternative Layout	**Visual Impact**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Visual Impact on surrounding land uses**
Nature of impact:	**Visual intrusion of construction vehicles and activities on site locally, including lighting; disturbance to adjacent residential areas**
Extent and duration of impact:	**Local, short term**
Consequence of impact or risk:	**Negative impact on local residents of the proposed changes to the local visual and scenic resources**
Probability of occurrence:	**Definite**
Degree to which the impact may cause irreplaceable loss of resources:	**Moderate, visual and scenic resources would be negatively affected**
Degree to which the impact can be reversed:	**Low**
Indirect impacts:	**None, apart from the short- term increase in vehicle movements servicing the construction site**
Cumulative impact prior to mitigation:	**Low, none**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**
Degree to which the impact can be avoided:	**Low**
Degree to which the impact can be managed:	**Medium,**
Degree to which the impact can be mitigated:	**Medium**
Proposed mitigation:	**None**
Residual impacts:	**Change of local landscape character; some limited but permanent ground contamination could occur.**
Cumulative impact post mitigation:	**None**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Visual Impact on surrounding land uses**
Nature of impact:	**Impact on local receptors of the change in site character from rural**

	to a road corridor
Extent and duration of impact:	**Local, long term**
Consequence of impact or risk:	**Negative impact on local residents of the proposed changes to the local visual and scenic resources**
Probability of occurrence:	**Highly Probable**
Degree to which the impact may cause irreplaceable loss of resources:	**Moderate in the long term, visual and scenic resources would be negatively affected**
Degree to which the impact can be reversed:	**Low, the development could be de-commissioned, and the site cleared but there could be ground contamination**
Indirect impacts:	**None**
Cumulative impact prior to mitigation:	**The development could be visually experienced as additive**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**
Degree to which the impact can be avoided:	**Low**
Degree to which the impact can be managed:	**Medium**
Degree to which the impact can be mitigated:	**Medium**
Proposed mitigation:	**Provision of substantial tree and shrub planting.**
Residual impacts:	**Change of site and local landscape character; possible impacts on flora and fauna**
Cumulative impact post mitigation:	**The increase in traffic would not be reduced by mitigation measures, but the measures are critical for reasons of visual impact**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Moderate, due to street lighting for which only limited mitigation is feasible**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Visual Impact on surrounding land uses**
Nature of impact:	**Visual intrusion of construction vehicles and activities on site locally, including lighting; disturbance to adjacent residential areas**
Extent and duration of impact:	**Local, short term**
Consequence of impact or risk:	**Negative impact on local residents of the proposed changes to the local visual and scenic resources**
Probability of occurrence:	**Definite**
Degree to which the impact may cause irreplaceable loss of resources:	**Moderate, visual and scenic resources would be negatively affected**
Degree to which the impact can be reversed:	**Low**
Indirect impacts:	**None, apart from the short- term increase in vehicle movements servicing the construction site**
Cumulative impact prior to mitigation:	**Low, none**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**
Degree to which the impact can be avoided:	**Low**
Degree to which the impact can be managed:	**Medium,**
Degree to which the impact can be mitigated:	**Medium**
Proposed mitigation:	**None**
Residual impacts:	**Change of local landscape character; some limited but permanent ground contamination could occur.**
Cumulative impact post mitigation:	**None**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very Low**

Note: The EAP may decide to include this section as Appendix J to the BAR.

NA

(c) Provide a summary of the site selection matrix.

The property was the only alternative considered. Two layout alternatives were assessed against the no go or no development option.

(d) Outcome of the site selection matrix.

Construction phase:

- Disturbance to subsurface geological layers (**Medium impact before mitigation and low impact with mitigation measures**);
- Soil erosion and dust - (**Low impact before mitigation and low impact with mitigation measures**);
- Impact of construction activities on surface and underground water pollution - (**High impact before mitigation and low impact with mitigation measures**);

- Impact on drainage line / groundwater resources - (**High impact before mitigation and low impact with mitigation measures**);
- Impact on surrounding and municipal planning policies and guidelines - (**Medium impact before mitigation and low impact with mitigation measures**);
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (**High impact before mitigation and Medium impact with mitigation measures**);
- Increased jobs - (**No impact before mitigation and positive impact with mitigation measures**);
- Increased traffic due to the construction activities requiring various vehicles to come onto and leave the site - (**Low impact before mitigation and low impact with mitigation measures**);
- The potential impact of the proposed development on archaeological, paleontological and heritage remains - (**Low impact before mitigation and low impact with mitigation measures**);
- Noise due to construction machinery - (**Low impact before mitigation and low impact with mitigation measures**);
- Visual impact of infrastructure and services establishment - (**Low impact before mitigation and low impact with mitigation measures**).

Operational phase:

- Disturbance to subsurface geological layers - (**Medium impact before mitigation and low impact with mitigation measures**);
- Soil erosion and dust - (**Medium impact before mitigation and low impact with mitigation measures**);
- Impact of operation activities on surface and underground water pollution - (**High impact before mitigation and low impact with mitigation measures**);
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(High impact before mitigation and Medium impact with mitigation measures);**

Decommissioning phase:

- Similar to impacts associated with construction phase.

3. SPECIALIST INPUTS/STUDIES, FINDINGS AND RECOMMENDATIONS

Note: Specialist inputs/studies must be attached to this report as **Appendix G** and must comply with the content requirements set out in Appendix 6 of the EIA Regulations, 2014 (as amended). Also take into account the Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "*One Environmental Management System*" and the EIA Regulations, 2014, any subsequent Circulars, and guidelines available on the Department's website (**http://www.westerncape.gov.za/eadp**).

Provide a summary of the findings and impact management measures identified in any specialist report and an indication of how these findings and recommendations have been included in the BAR.

Ecology

The two non-perennial drainage lines and a 32m buffer area must be excluded from the development area and zoned as open space in order to protect the Ecological Support Area and to allow for ecological functioning to continue. It is recommended that road crossings over the drainage lines be avoided. Should it not be possible to avoid crossing the drainage lines, this crossing must be limited to one crossing and the crossing must be closed to the upper section (Eden Road) where the existing road crosses the drainage line.

Method statements for the construction of the crossing over the drainage line must be submitted to the freshwater ecologist for approval and an application must be submitted to the Breede Gouritz Water Catchment Management Agency for approval. All alien plants must be cleared and the drainage lines and its buffers maintained and allowed to rehabilitate.

The study site is heavily invaded by alien trees (*Acacia cyclops*) which has resulted in low indigenous species diversity for the area. The indigenous species will however recover once the aliens are cleared and follow up clearing occurs. Some alien clearing has been done on site. This is however not coordinated. Firewood is removed and the branches are left on site. Access to the site is difficult as a result of the branches that are spread over the site. The fire risk on site is high as a result.

The northern and western portions of the site are classified as a terrestrial Critical Biodiversity Area

("CBA"). Please take note that this area was not classified as a terrestrial Critical Biodiversity Area in the previous assessment[11]. The drainage lines were classified as an Ecological Support Area. *Sideroxylon inerme* (Protected Milkwood Tree), *Agathosma muirii* (Vulnerable) *and Cullumia carlinoides* (Near Threatened) are the possible conservation worthy species that may occur on site. *Sideroxylon inerme* (Protected Milkwood Tree) was the only specie that was recorded during the survey. Most of the *Sideroxylon inerme* (Protected Milkwood Tree) recorded are within the drainage lines and the 32m buffer areas.

However, some of them are not in these areas and may be impacted upon. They must be recorded during construction and protected as far as possible. Should any of the *Sideroxylon inerme* (Protected Milkwood Tree) need to be pruned or removed, a permit must be obtained.

There is no question that the receiving environment is botanically important and should be treated as such since it has numerous endemic species and is viewed as threatened habitat at a fine-scale planning level. However, this does not preclude scope for considering housing infrastructure on condition that the sensitivities of the environment are observed. On this basis it is concluded that from a botanical perspective the drainage lines and the buffer areas should be completely excluded from further consideration. The rest of the site should only be considered if strong mitigation measures such as ecological corridors and a biodiversity offset area can be assured and active woody alien invasive eradication is guaranteed. In this way an important area of 'limestone fynbos' could be conserved.

4. ENVIRONMENTAL IMPACT STATEMENT

Provide an environmental impact statement of the following:

(i) A summary of the key findings of the EIA.

Construction phase:

- Disturbance to subsurface geological layers (**Medium impact before mitigation and low impact with mitigation measures**);
- Soil erosion and dust - (**Low impact before mitigation and low impact with mitigation measures**);
- Impact of construction activities on surface and underground water pollution - (**High impact before mitigation and low impact with mitigation measures**);
- Impact on drainage line / groundwater resources - (**High impact before mitigation and low impact with mitigation measures**);
- Impact on surrounding and municipal planning policies and guidelines - (**Medium impact before mitigation and low impact with mitigation measures**);
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (**High impact before mitigation and Medium impact with mitigation measures**);
- Increased jobs - (**No impact before mitigation and positive impact with mitigation measures**);
- Increased traffic due to the construction activities requiring various vehicles to come onto and leave the site - (**Low impact before mitigation and low impact with mitigation measures**);
- The potential impact of the proposed development on archaeological, paleontological and heritage remains - (**Low impact before mitigation and low impact with mitigation measures**);
- Noise due to construction machinery - (**Low impact before mitigation and low impact with mitigation measures**);
- Visual impact of infrastructure and services establishment - (**Low impact before mitigation and low impact with mitigation measures**).

Operational phase:

- Disturbance to subsurface geological layers - (**Medium impact before mitigation and low impact with mitigation measures**);
- Soil erosion and dust - (**Medium impact before mitigation and low impact with mitigation measures**);
- Impact of operation activities on surface and underground water pollution - (**High impact before mitigation and low impact with mitigation measures**);
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the

[11] bgis.sanbi.org 2014/02/06

naturally occurring fauna present in the area - **(High impact before mitigation and Medium impact with mitigation measures);**

Decommissioning phase:

Similar to impacts associated with construction phase.

(ii) Has a map of appropriate scale been provided, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers?	YES	~~NO~~
(iii) A summary of the positive and negative impacts that the proposed development and alternatives will cause in the environment and community.		
Refer to Section G: 2(a) above.		

5. IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES

(a) Based on the assessment, describe the impact management, mitigation and monitoring measures as well as the impact management objectives and impact management outcomes included in the EMPr. The EMPr must be attached to this report as Appendix H.

The key mitigation measures recommended should be impact avoidance. Where adverse impacts cannot reasonably be avoided, the activities should be managed through the effective implementation of the EMP with a strong emphasis on post-construction rehabilitation where required.

Refer to the Impact Assessment tables above, for list of mitigation measures as proposed for each potential impact assessed, as well as the EMP under Appendix H, in which all of the proposed mitigation measures have been incorporated.

(b) Describe any provisions for the adherence to requirements that are prescribed in a Specific Environmental Management Act relevant to the listed activity or specified activity in question.

None.

(c) Describe the ability of the applicant to implement the management, mitigation and monitoring measures.

The applicant is ultimately responsible for the implementation of the EA and EMP and the financial cost related thereto. In accordance with the requirements of the EA and EMP, the applicant must ensure that any person acting on their behalf complies with the conditions / specifications contained in this EA, EMP and any other relevant permits/licences/legislation etc. related to the activities. In addition, an Environmental Control Officer must be appointed to review, monitor and report on compliance with the relevant requirements. Thus, if the applicant intends to commence with the proposed and authorised activities, he/she must ensure that he/she is able to implement the required management, mitigation and monitoring measures throughout the lifespan of the project.

(d) Provide the details of any financial provisions for the management of negative environmental impacts, rehabilitation and closure of the proposed development.

Unknown at his stage.

(e) Describe any assumptions, uncertainties, and gaps in knowledge which relate to the impact management, mitigation and monitoring measures proposed.

EAP is only knowledgeable with regards to the potential environmental and ecosystems aspects.

Limited knowledge with regard to the potential negative impacts on municipal services capacity.

In undertaking the investigation and compiling this report, the following have been assumed:
•The information provided by the client, specialists and engineers is accurate and unbiased;
•The scope of this investigation is to assess the direct and cumulative environmental impacts associated with the development; and
•Should the proposed project be authorised, the applicant will incorporate the recommendations and mitigation measures outlined in this BAR, the EMP and the EA into the detailed design and construction contract specifications and operational management system for the proposed project.

SECTION H: RECOMMENDATIONS OF THE EAP AND SPECIALISTS

(a) In my view as the appointed EAP, the information contained in this BAR and the documentation attached hereto is sufficient to make a decision in respect of the listed activity(ies) applied for.	YES	~~NO~~

(b) If the documentation attached hereto is sufficient to make a decision, please indicate below whether, in your opinion, the listed activity(ies) should or should not be authorised:		
Listed activity(ies) should be authorised:	YES	~~NO~~
Provide reasons for your opinion		
All possible impacts (except for the biological) on the environment have been assessed and can be mitigated and managed. The assessment did not lead to any fatal flaws, if the development is approved, provided that the facility is operated in terms of all relevant applicable legislation and the EMP management activities implemented.		
(c) Provide a description of any aspects that were conditional to the findings of the assessment by the EAP and Specialists which are to be included as conditions of authorisation.		
The two non-perennial drainage lines and a 32m buffer area must be excluded from the development area and zoned as open space in order to protect the Ecological Support Area and to allow for ecological functioning to continue. It is recommended that road crossings over the drainage lines be avoided. Should it not be possible to avoid crossing the drainage lines, this crossing must be limited to one crossing. Method statements for the construction of the crossing over the drainage line must be submitted to the freshwater ecologist for approval and an application must be submitted to the Breede Gouritz Water Catchment Management Agency for approval. All alien plants must be cleared and the drainage lines and its buffers maintained and allowed to rehabilitate. *Sideroxylon inerme* (Protected Milkwood Tree) was the only specie that was recorded during the survey. Most of the *Sideroxylon inerme* (Protected Milkwood Tree) recorded are within the drainage lines and the 32m buffer areas. However, some of them are not in these areas and may be impacted upon. They must be recorded during construction and protected as far as possible. Should any of the *Sideroxylon inerme* (Protected Milkwood Tree) need to be pruned or removed, a permit must be obtained. There is no question that the receiving environment is botanically important and should be treated as such since it has numerous endemic species and is viewed as threatened habitat at a fine-scale planning level. However, this does not preclude scope for considering housing infrastructure on condition that the sensitivities of the environment are observed. On this basis it is concluded that from a botanical perspective the drainage lines and the buffer areas should be completely excluded from further consideration. The rest of the site should only be considered if strong mitigation measures such as ecological corridors and a biodiversity offset area can be assured and active woody alien invasive eradication is guaranteed. In this way an important area of 'limestone fynbos' could be conserved.		
(d) If you are of the opinion that the activity should be authorised, please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an environmental authorisation.		
Recommended that the EA prescribe that: • Should any heritage artefacts be exposed during construction that all activities be stopped, and Heritage Western Cape contacted pre any further action being permitted. • The project implementation process should be subject to standard Environmental Management Programme prescripts and conditions under supervision of a competent and diligent ECO, during its construction and decommissioning phases.		
(e) Please indicate the recommended periods in terms of the following periods that should be specified in the environmental authorisation:		
i. the period within which commencement must occur;	Within 5 years of obtaining Environmental Authorisation	
ii. the period for which the environmental authorisation is granted and the date on which the development proposal will have been concluded, where the environmental authorisation does not include operational aspects;	Within 10 years of obtaining Environmental Authorisation	

iii.	the period for which the portion of the environmental authorisation that deals with non-operational aspects is granted; and	Within 10 years of obtaining Environmental Authorisation
iv.	the period for which the portion of the environmental authorisation that deals with operational aspects is granted.	Ongoing maintenance of infrastructure and implementation of EMP until decommissioning.

SECTION I: APPENDICES

The following appendices must be attached to this report:

APPENDIX			**Confirm that Appendix is attached**
Appendix A:	**Locality map**		YES
Appendix B:	**Site development plan(s)**		YES
	A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;		YES
Appendix C:	**Photographs**		YES
Appendix D:	**Biodiversity overlay map**		YES
Appendix E:	**Permit(s) / license(s) from any other Organ of State, including service letters from the municipality.**		
	Appendix E1:	**Copy of comment from HWC.**	YES
Appendix F:	**Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required in Section C above.**		YES
Appendix G:	**Specialist Report(s)**		YES
Appendix H :	**EMPr**		YES
Appendix I:	**Additional information related to listed waste management activities (if applicable)**		NA
Appendix J:	**If applicable, description of the impact assessment process followed to reach the proposed preferred alternative within the site.**		NA
Appendix K:	**Any Other (if applicable).** **AppendixK1: EAP CV**		YES

SECTION J: DECLARATIONS

Original signed copies of the declarations to be provided with the Final Basic Assessment Report to be submitted to the Department of Environmental Affairs and Development Planning for a final decision.