



**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

**PROPOSED RESIDENTIAL DEVELOPMENT ON ERF 907 & REMAINDER OF FARM 174,
BOEKENHOUTSKLOOF, BONNIEVALE**

[September 2018]

REPORT TYPE CATEGORY	REPORT REFERENCE NUMBER	DATE OF REPORT
Pre-Application Basic Assessment Report (if applicable) ¹	NA	NA
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:	NA
File reference number (EIA):	NA
NEAS reference number (EIA):	NA
File reference number (Waste):	NA
NEAS reference number (Waste):	NA
File reference number (Air Quality):	NA
NEAS reference number (Air Quality):	NA
File reference number (Other):	NA
NEAS reference number (Other):	NA

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 1 st 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 1 st 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 4 th 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:

Section	Page(s)
Section A: Project Information	7
Section B: Description of the Receiving Environment	11
Section C: Public Participation	21
Section D: Need and Desirability	22
Section E: Details of all the Alternatives considered	25
Section F: Environmental Aspects Associated with the Alternatives	28
Section G: Impact Assessment, Impact Avoidance, Management, Mitigation and Monitoring Measures	31
Section H: Recommendations of the EAP	35
Section I: Appendices	37
Section J: Declarations	38

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:	Langeberg Municipality		
Contact person:	Municipal Manager		
Postal address:	Private Bag, Ashton		
Telephone:	(023) 615 8001	Postal Code:	6715
Cellular:	NA	Fax:	(023) 615 1563
E-mail:	mm@langeberg.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:	Jessica Hansen		
EAP Reg. No.:	400192/16		
Contact Person (if not author):	NA		
Postal address:	PO Box 45070		
Telephone:	(021) 671 1660	Postal Code:	7735
Cellular:	083 666 8046	Fax:	(021) 671 9976
E-mail:	admin@ecoimpact.co.za		
EAP Qualifications:	<p>Jessica has a BSc (Honours) in Environmental and Geographical Science in 2011 from the University of Cape Town and subsequently obtained her MSc in Zoology in 2013. Jessica has worked as an Environmental Assessment Practitioner since August 2013 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</p>		

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.

Jessica Hansen 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 Professional Natural Scientist in the field of practice Environmental Science (Registration number 400192/16). She obtained her BSc (Honours) in Environmental and Geographical Science in 2011 from the University of Cape Town and subsequently obtained her MSc in Zoology (Applied Marine Science) in 2013. Jessica has trained as an Environmental Assessment Practitioner since August 2013 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.

See appendix K.

EXECUTIVE SUMMARY OF THE BASIC ASSESSMENT REPORT:

The project proposes

- 438 Residential Zone 1 erven
- 4 Proposed Government and Municipal Zoned erven
- 3 Open Space erven
- Roads ($\pm 13\,650\text{m}^2$)

The development site also proposes the following upgrade of surrounding existing municipal networks for connections.

Internal Sewage Removal

Sewage will be removed by means of a waterborne gravity sewer network connected to the existing municipal network via a proposed sewer pump station, south east of the development.

The gravity sewer network will consist of 160mm diameter uPVC sewer pipes and 1,0m diameter concrete sewer manholes. The estimated length of the network is 2 580m and approximately 45 manholes will be constructed.

Bulk Sewage Removal

A new sewer pump station with the capacity of 8 l/s will need to be constructed just south east of the development. The bulk sewage will be removed via a 110mm diameter uPVC rising main. Sewage will be pumped from the proposed new sewer pump station to an existing pump station to the west of the development. The estimated length of the rising main is 2 725m.

Internal Water Supply

The development will be serviced by means of a water network consisting of PVC water pipes of 75mm to 110mm diameter (total estimated length 2 618m) installed in road reserves. The proposed connection point is to a proposed 200mm ND UPVC supply line south of the development.

The fire-risk category assumed is "Low-risk (group 4)" for which no specific fire-fighting provision is required. Hydrants will however be located at convenient points ensuring the spacing does not exceed 240m (estimated total = 4). Isolating valves will be installed in valve chambers and placed in accordance with the design guidelines (estimated total = 12).

Bulk Water Supply for Domestic Usage

The development will be supplied with potable water from the existing Municipal water treatment works by means of a new 200mm ND UPVC pipeline (total estimated length 1 300m).

Internal Roads

The development will be accessed via an existing gravel road from Bonnievale. All new roads for the proposed development will be provided with a permanent surface finish (25mm Asphalt) and will be 4.5m wide. Edging/kerbs will be provided on the sides of the roads in accordance with the standards. A gravel sidewalk will be provided on one side of the road.

The total estimated area to be surfaced is 13 650m² with approximately 3 000m of kerbs and 3 100m of edging.

Storm water drainage and management

Storm water from the proposed development area currently follows preferential drainage paths to the south-east to a larger water course. It is proposed that the storm water be directed in the roads reserves by means of the road geometry, kerbs and storm water pipes through-out the development where it will be discharged in a controlled manner into the existing water course.

To achieve the above, concrete storm water pipes ranging from 375mm to 525mm in diameter (total estimated length = 580m) with associated catch pits and junction boxes will need to be installed.

The southern ravine will need to be crossed to access to the development. An anticipated culvert size of approximately 4 x 3,0m x 1,8m will need to be installed for the crossing of the ravine to

accommodate the 1:100-year flood.

Alternatives

Location alternatives - No other property alternatives were assessed as no feasible or reasonable property alternative exists. The development site is situated within the agreed urban edge of the town of Bonnievale and has been identified in the Langeberg Municipality SDF for residential development. Considering the housing backlog and the fact that the site is currently used as an informal settlement there is an urgent need for this project. This site is therefore the only feasible location for the proposed development.

Activity alternatives – No other activity alternatives were assessed as no feasible or reasonable activity alternative exists. The development area is situated within the agreed urban edge of the town of Bonnievale and has been identified for residential development in the Langeberg Municipality SDF. Due to the need for housing and services in the community and the fact that the site is currently used as an informal settlement, this activity was the only feasible option.

Layout alternatives - No other layout alternatives were assessed as no feasible or reasonable layout exists, this is due to the following:

- The proposed layout takes into account the existing roads and informal settlements.
- The proposed community facilities (4 units) are located as such due to the presence of existing toilets, water tanks and taps).
- The two open space erven are located specifically due to the pole transformer.
- The layout takes into consideration the requirement for bulk services (water, sewage and storm water).
- Meets the need and desirability as manifested by the community.
- The pipeline route follows informal roads so to reduce any environmental impact.

Technology alternatives - No other technology alternatives were considered. The minimum standards proposed for the civil services and pertaining infrastructure will comply with the recommendations made by the Department of Human Settlements (Western Cape Government) in respect of the A Grade Engineering Services subsidy. This is also in compliance with the "Guidelines for Human Settlements, Planning and Design" as compiled under patronage of the Department of Housing by CSIR Building & Construction Technology (also known as the "Red Book") as well as any specific requirements prescribed by the Langeberg Municipality.

Operational alternatives – Once operational, the only activities that will be undertaken are related to maintenance and upkeep of the development and associated infrastructure. Operation in accordance with EMP and MMP.

No-Go - The No-Go option will result in the site remaining as is presently; a vacant disturbed municipal area with an ever-increasing informal settlement established on the site. The site at present has no services provided to the informal settlement thus resulting in the deterioration of the site. The Need and Desirability as manifested in the Langeberg Municipality SDF supports the proposed housing development on the identified site, as the need for housing in this particular area is great. The proposed development will provide temporary jobs to the community during the construction phase. The development will provide new infrastructure for the delivery of services for the community. The expanding informal settlement is resulting in impacts on the adjacent rivers and the informal river crossing impacting on the river and results in increased erosion etc. Litter and uncontrolled impacts on adjacent vegetation will proliferate if the no-go option is implemented.

Impacts Identified -

Construction

- Soil erosion and dust – low
- Surface and ground water pollution – medium
- Disturbance to subsurface geological layers – low
- Impact on sensitive environments (river) – low

- Degradation / loss of naturally occurring / indigenous flora and habitats – low
- Increase in jobs – positive
- Traffic impacts – low
- Damage to existing infrastructure – low
- Waste impacts – low
- Noise – low

Operational

- Impact on sensitive environments (river) – low
- Traffic impacts – positive
- Infrastructure failure– low
- Waste impacts – positive
- Services provision - positive

Decommissioning

Same as construction but decommissioning not foreseeable/highly unlikely – road, services and river crossing for established residential community.

No-go option

- Soil erosion – medium
- Surface and ground water pollution -medium
- Impact on sensitive environments (river) – medium
- Traffic impacts – medium

SECTION A: PROJECT INFORMATION

1. ACTIVITY LOCATION

Location of all proposed sites:	The proposed property is located north of the hill separating the east and west of Bonnievale.
Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site:	Boekenhoutskloof: Erf 907 Farm RE/174
Property size(s) in m ² for each proposed site:	1 12 000
Development footprint size(s) in m ² :	1 12 000
Surveyor General (SG) 21-digit code for each proposed site:	Erf 907: C07300020000090700000 Farm RE/174: C07300000000017400000

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).

- 438 Residential Zone 1 erven
- 4 Proposed Government and Municipal Zoned erven
- 3 Open Space erven
- Roads ($\pm 13\ 650\text{m}^2$)

The development site also proposes the following upgrade of surrounding existing municipal networks for connections.

Internal Sewage Removal

Sewage will be removed by means of a waterborne gravity sewer network connected to the existing municipal network via a proposed sewer pump station, south east of the development.

The gravity sewer network will consist of 160mm diameter uPVC sewer pipes and 1,0m diameter concrete sewer manholes. The estimated length of the network is 2 580m and approximately 45 manholes will be constructed.

Bulk Sewage Removal

A new sewer pump station with the capacity of 8 l/s will need to be constructed just south east of the development. The bulk sewage will be removed via a 110mm diameter uPVC rising main. Sewage will be pumped from the proposed new sewer pump station to an existing pump station to the west of the development. The estimated length of the rising main is 2 725m.

Internal Water Supply

The development will be serviced by means of a water network consisting of PVC water pipes of 75mm to 110mm diameter (total estimated length 2 618m) installed in road reserves. The proposed connection point is to a proposed 200mm ND UPVC supply line south of the development.

The fire-risk category assumed is "Low-risk (group 4)" for which no specific fire-fighting provision is required. Hydrants will however be located at convenient points ensuring the spacing does not exceed 240m (estimated total = 4). Isolating valves will be installed in valve chambers and placed in accordance with the design guidelines (estimated total = 12).

Bulk Water Supply for Domestic Usage

The development will be supplied with potable water from the existing Municipal water treatment works by means of a new 200mm ND UPVC pipeline (total estimated length 1 300m).

Internal Roads

The development will be accessed via an existing gravel road from Bonnievale. All new roads for the proposed development will be provided with a permanent surface finish (25mm Asphalt) and will be 4.5m wide. Edging/kerbs will be provided on the sides of the roads in accordance with the standards. A gravel sidewalk will be provided on one side of the road.

The total estimated area to be surfaced is 13 650m² with approximately 3 000m of kerbs and 3 100m of edging.

Storm water drainage and management

Storm water from the proposed development area currently follows preferential drainage paths to the south-east to a larger water course. It is proposed that the storm water be directed in the roads reserves by means of the road geometry, kerbs and storm water pipes through-out the development where it will be discharged in a controlled manner into the existing water course.

To achieve the above, concrete storm water pipes ranging from 375mm to 525mm in diameter (total estimated length = 580m) with associated catch pits and junction boxes will need to be installed.

The southern ravine will need to be crossed to access to the development. An anticipated culvert size of approximately 4 x 3,0m x 1,8m will need to be installed for the crossing of the ravine to accommodate the 1:100-year flood.

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,	5 years from EA granted
(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;	10 years
(iii)	the period that should be granted for the non-operational aspects of the environmental authorisation; and	10 years
(iv)	the period that should be granted for the operational aspects of the environmental authorisation.	Unlimited

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):

Listed Activity No(s):	Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 1 (GN No. R. 983)	Describe the portion of the development that relates to the applicable listed activity as per the project description.	Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational.
12	<p>The development of-</p> <p>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or</p> <p>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</p> <p>where such development occurs-</p> <p>(a) within a watercourse;</p> <p>(b) in front of a development setback; or</p> <p>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;-</p> <p>excluding-</p> <p>(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</p> <p>(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;</p> <p>(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;</p> <p>(dd) where such development occurs within an urban area;</p> <p>(ee) where such development occurs within existing roads, road reserves or railway line reserves; or</p> <p>(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.</p>	Road and infrastructure that crosses a drainage line.	Development.
19	<p>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;</p> <p>but excluding where such infilling, depositing, dredging, excavation, removal or moving-</p> <p>(a) will occur behind a development setback;</p> <p>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</p> <p>(c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;</p> <p>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</p> <p>(e) where such development is related to the development of a port or harbour, in which case</p>	Road and infrastructure that crosses a drainage line.	Development and operational.

	activity 26 in Listing Notice 2 of 2014 applies.		
27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	Clearance of indigenous vegetative cover over.	Development.
28	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	Roads and infrastructure to create erven for informal structures.	Development.
Listed Activity No(s):	Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 3 (GN No. R. 985)	Describe the portion of the development that relates to the applicable listed activity as per the project description.	Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational.
4	The development of a road wider than 4m with a reserve less than 13.5m 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	Construction of residential roads outside an urban area.	Development.
12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. (a) Western Cape provinces: i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity	Clearance of indigenous vegetative cover over.	Development.

	<p>Assessment 2004;</p> <p>ii. Within critical biodiversity areas identified in bioregional plans;</p> <p>iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line or even in urban areas;</p> <p>iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or</p> <p>v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.</p>		
--	---	--	--

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

Category A Listed Activity No(s):	Describe the relevant <u>Category A</u> 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**.

BUFFER AMENDMENT:

The Bonnievale Waste Disposal Facility (WDF) is a small landfill site for general waste. The site has a section 20 Environmental Conservation Act Permit (Permit number: 16/2/7/H500/D79/Z1/P304) (see Appendix I2). This permit states "3.4. *The Permit Holder shall take all reasonable steps, such as suitable zoning and/or written agreements with adjacent landowners, to establish and maintain an unbuilt area or "buffer zone" of 800 metres between the Site and the nearest residential and/or light industrial areas during the operative life of the Site. Heavy industries or industries which may create nuisance conditions may be permitted within the buffer zone in terms of the appropriate legislation.*"

A specialist study was commissioned (see Appendix I - BONNIEVALE WASTE DISPOSAL FACILITY AIR QUALITY IMPACT ASSESSMENT AND BUFFER ZONE DETERMINATION Prepared by: DDA Environmental Engineers dated November 2017) and concluded "Based on the resulting low odour concentrations and the very low non-carcinogenic and carcinogenic risks, the buffer zone requirements for the Bonnievale WDF are expected to be contained by the site's boundaries. As such, the odour nuisance and health end points' buffer zone requirements were not required outside the site's boundaries. However, considering that the Bonnievale WDF does not have any active or passive LFG extraction system, nor any lateral LFG migration monitoring probes, and taking into account the potential LFG migration risk, the minimum buffer requirement was set to 100 m from the site's boundaries."

As such it is requested that the Department relax the buffer zone as indicated on the section 20 ECA permit.

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
<ul style="list-style-type: none"> • 438 Residential Zone 1 erven • 4 Community facility erven 		
Infrastructure (e.g., roads, power and water supply/ storage) Provide brief description below:	YES	NO
<p>The development site also proposes the following upgrade of surrounding existing municipal networks for connections.</p> <p>Internal Sewage Removal Sewage will be removed by means of a waterborne gravity sewer network connected to the existing municipal network via a proposed sewer pump station, south east of the development.</p> <p>The gravity sewer network will consist of 160mm diameter uPVC sewer pipes and 1,0m diameter concrete sewer manholes. The estimated length of the network is 2 580m and approximately 45 manholes will be constructed.</p> <p>Bulk Sewage Removal A new sewer pump station with the capacity of 8 l/s will need to be constructed just south east of the development. The bulk sewage will be removed via a 110mm diameter uPVC rising main. Sewage will be pumped from the proposed new sewer pump station to an existing pump station to the west of the development. The estimated length of the rising main is 2 725m.</p> <p>Internal Water Supply The development will be serviced by means of a water network consisting of PVC water pipes of 75mm to 110mm diameter (total estimated length 2 618m) installed in road reserves. The proposed connection point is to a proposed 200mm ND UPVC supply line south of the development.</p> <p>The fire-risk category assumed is “Low-risk (group 4)” for which no specific fire-fighting provision is required. Hydrants will however be located at convenient points ensuring the spacing does not exceed 240m (estimated total = 4). Isolating valves will be installed in valve chambers and placed in accordance with the design guidelines (estimated total = 12).</p> <p>Bulk Water Supply for Domestic Usage The development will be supplied with potable water from the existing Municipal water treatment works by means of a new 200mm ND UPVC pipeline (total estimated length 1 300m).</p> <p>Internal Roads The development will be accessed via an existing gravel road from Bonnievale. All new roads for the proposed development will be provided with a permanent surface finish (25mm Asphalt) and will be 4.5m wide. Edging/kerbs will be provided on the sides of the roads in accordance with the standards. A gravel sidewalk will be provided on one side of the road.</p> <p>The total estimated area to be surfaced is 13 650m² with approximately 3 000m of kerbs and 3 100m of edging.</p> <p>Storm water drainage and management Storm water from the proposed development area currently follows preferential drainage paths to the south-east to a larger water course. It is proposed that the storm water be directed in the roads reserves by means of the road geometry, kerbs and storm water pipes through-out the development</p>		

where it will be discharged in a controlled manner into the existing water course.

To achieve the above, concrete storm water pipes ranging from 375mm to 525mm in diameter (total estimated length = 580m) with associated catch pits and junction boxes will need to be installed.

The southern ravine will need to be crossed to access to the development. An anticipated culvert size of approximately 4 x 3,0m x 1,8m will need to be installed for the crossing of the ravine to accommodate the 1:100-year flood.

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	10 094 804	m ²
(b) Size of the facility: Indicate the size of the facility where the development proposal is to be undertaken	+112000	m ²
(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)	+112000 (residential) +4025 (pipelines)	m ²
(d) Size of the activity: Indicate the physical size (footprint) of the development proposal	+112000 (residential) +4025 (pipelines)	m ²
(e) For linear development proposals: Indicate the length (L) and width (W) of the development proposal	(L) 4025	m
	(W) 1	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?	NA m	

(c) Describe the type of access road planned:

The development will be accessed via an existing gravel road from Bonnievale. The southern ravine will need to be crossed to access to the development. An anticipated culvert size of approximately 4 x 3,0m x 1,8m will need to be installed for the crossing of the ravine to accommodate the 1:100-year flood.

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).

The site is located north of Forest Street, which connects the eastern and western portions of the town of Bonnievale. Erf 907 & remainder of Farm 174 (the site) is approximately 11.2 hectare in size and is currently occupied by informal Structures (shacks) and undeveloped grasslands. The topography of the area is characterized by gentle to moderate sloping terrains (1:6 to 1:16) draining in a south easterly direction into a watercourse to the south. The natural vegetation on site is classified as Breede Shale Renosterveld, Least Threatened (Terrestrial Areas) and Cape Lowland Alluvial, Critically Endangered (associated with the Non-perennial Rivers). The impacted areas are however mostly transformed and disturbed as a result of existing roads (formal and informal) and squatter activities.

Coordinates of all the proposed activities on the property or properties (sites):	Latitude (S): (deg.; min.; sec)			Longitude (E): (deg.; min.; sec.)		
		°33	'55	"25.6	°20	'04
	°33	'55	"21.9	°20	'04	"52.6

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).

NA

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)		
		°	'	"	°	'
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"

- 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).

The bulk sewage will be removed via a 110mm diameter uPVC rising main. Sewage will be pumped from the proposed new sewer pump station to an existing pump station to the west of the development. The estimated length of the rising main is 2 725m. This pipeline runs from the new proposed pump station and crosses the river at the current road crossing and then runs east and follows Forest Street until it reaches the "Bonnievale People Project" and turns north to cross the river for a second time and then runs north east along a un-named gravel road until it reaches the existing sewer pump station which is located just off Alaska Ave, south of Mooivallei Suiwel (Pty).

The development will be supplied with potable water from the existing Municipal water treatment works by means of a new 200mm ND UPVC pipeline (total estimated length 1 300m). This pipeline runs from the site and crosses the river at the current road crossing, crosses Forrest Street and then runs south-east and follows the un-named gravel track until it reaches the existing Municipal water treatment works.

SEWAGE PIPELINE - 2 725m

For linear activities:	Latitude (S): (deg.; min.; sec)	Longitude (E): (deg.; min.; sec)
• Starting point of the activity	33°55'29.72"S	20° 4'55.96"E
• Point 2	33°55'31.96"S	20° 5'0.54"E
• Point 3	33°55'30.66"S	20° 5'8.73"E
• Point 4	33°55'31.70"S	20° 5'16.36"E
• Point 5	33°55'32.74"S	20° 5'21.07"E
• Middle point	33°55'28.02"S	20° 5'24.07"E
• Point 7	33°55'25.08"S	20° 5'29.31"E
• Point 8	33°55'23.78"S	20° 5'38.53"E
• Point 9	33°55'23.68"S	20° 5'45.72"E
• Point 10	33°55'22.34"S	20° 5'53.64"E
• End point of the activity	33°55'19.83"S	

WATER PIPELINE - 1 300m

For linear activities:	Latitude (S): (deg.; min.; sec)	Longitude (E): (deg.; min.; sec)
• Starting point of the activity	33°55'28.99"S	20° 4'52.48"E
• Point 2	33°55'32.93"S	20° 4'59.03"E
• Point 3	33°55'33.18"S	20° 5'11.00"E
• Middle point	33°55'36.58"S	20° 5'18.09"E
• Point 5	33°55'40.53"S	20° 5'22.69"E
• Point 6	33°55'46.36"S	20° 5'26.79"E
• End point of the activity	33°55'50.78"S	20° 5'22.70"E

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:	<p>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:</p> <ul style="list-style-type: none"> • 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). <p>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.</p>
Site Plan:	<p>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:</p> <ul style="list-style-type: none"> • 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 <u>must</u> 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): <ul style="list-style-type: none"> ○ Watercourses / Rivers / Wetlands - including the 32-meter set back line from the edge of the bank of a river/stream/wetland; ○ Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable); ○ Ridges; ○ Cultural and historical features; ○ 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 <p>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.</p>

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	Dune	Sea-front
-----------	---------	-------------------------------	---------------	-------------	-------	----------------------------	------	-----------

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

The site is located north of Forest Street, which connects the eastern and western portions of the town of Bonnievale. Erf 907 & remainder of Farm 174 (the site) is approximately 11.2 hectare in size and is currently occupied by informal Structures (shacks) and undeveloped grasslands. The topography of the area is characterized by gentle to moderate sloping terrains (1:6 to 1:16) draining in a south easterly direction into a watercourse to the south. The site is situated in an open valley. The natural vegetation on site is classified as Breede Shale Renosterveld, Least Threatened (Terrestrial Areas) and Cape Lowland Alluvial, Critically Endangered (associated with the Non-perennial Rivers). The impacted areas are however mostly transformed and disturbed as a result of existing roads (formal and informal) and squatter activities.

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

(b) If any of the answers to the above is "YES" or "UNSURE", specialist input may be requested by the Department. (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.						
<u>Soil</u> Prisma-cutanic and/or pedocutanic diagnostic horizons dominant, mainly red B horizons (Reference: Cape farm mapper, Soils and Geology resource layer 09/2018).						
<u>Geology</u> Mainly siltstone, shale and argillaceous sandstone of the Adolphspoor Formation, Bokkeveld Group, largely covered by alluvium. (Reference: Cape farm mapper, Soils and Geology resource layer 09/2018).						

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.

The site is located in the Breede River catchment (Department of Water and Sanitation (DWS) Primary Drainage Region H), within the Breede-Gouritz Water Management Area (WMA). The proposed water uses would pass through sections of the H50B quaternary catchment. The non-perennial river on the southern side of the informal area will be impacted by the proposed developments. This river starts west and north west of the impacted areas inside the mountains that surround the development. It flows in the catchment basin where the development is situated in an eastern and southern direction through the town of Bonnievale. This non-perennial river is not a tributary of the Bree River or connected to any other river system. It is the author's view that this river historically flooded out into the floodplain of the Bree River which is now transformed by cultivated vineyards and cultivated agricultural fields. The river is characterised by a single channel, approximately 10 to 20m wide at this point, which has a bed comprising mostly sand that covers alluvial rocks. A second non-perennial river which is been completely degraded by informal settlements runs through the northern side of the informal 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	<p>The natural vegetation on site is classified as Breede Shale Renosterveld, Least Threatened (Terrestrial Areas) and Cape Lowland Alluvial, Critically Endangered (associated with the Non-perennial Rivers). The impacted areas are however mostly transformed and disturbed as a result of existing roads (formal and informal) and squatter activities. The Non-perennial rivers that will be impacted have been identified as an Aquatic Ecological Support Area (ESA) and the terrestrial areas to the east of the site as Terrestrial Critical Biodiversity Areas (CBA) in the latest Western Cape Biodiversity Spatial Plan (2017). Sections of the proposed sewerage and water pipelines are located between Critical Biodiversity Areas (CBA) but the sections of the proposed infrastructure are proposed in disturbed areas with no to limited vegetation cover as a result of the road infrastructure. The last north eastern section of the sewerage pipeline to be constructed will impact on a small section of indigenous vegetation. No threatened or protected species or conservation worthy plants were recorded in this section.</p> <p><u>Residential site 11.2ha:</u></p> <ul style="list-style-type: none"> • ESA: Aquatic: 10% • ESA: Restore: 5% • Other Natural Area: 20% • CBA: 3% • CBA degraded: 3% • No Natural Area Remaining (squatters): 59% <p><u>Pipeline Route (4025 meters long by 1m = 4025m²):</u></p> <ul style="list-style-type: none"> • ESA: Aquatic: 5% • ESA: Restore: 50% • Other Natural Area: 5% • CBA: 0% • CBA degraded: 3% • No Natural Area Remaining (roads): 37% <p>(Source: Western Cape Biodiversity Spatial Plan 2017)</p>			
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)	NA			

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

RESIDENTIAL – 11.2 ha			
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	0%	0m ²	
Near Natural (includes areas with low to moderate level of alien invasive plants)	0%	0m ²	
Degraded (includes areas heavily invaded by alien plants)	10%	11200m ²	The natural vegetation on site is classified as Breede Shale Renosterveld, Least Threatened (Terrestrial Areas) and Cape Lowland Alluvial, Critically Endangered (associated with the Non-perennial Rivers).
Transformed (includes cultivation, dams, urban, plantation, roads, etc.)	90%	100800m ²	The impacted areas are however mostly transformed and disturbed as a result of existing roads (formal and informal) and squatter activities

PIPELINE ROUTE – 4025m ²			
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%	402.5m ²	The last north eastern section of the sewerage pipeline to be constructed will impact on a small section of indigenous vegetation. No threatened or protected species or conservation worthy plants were recorded in this section.
Near Natural (includes areas with low to moderate level of alien invasive plants)	0%	m ²	
Degraded (includes areas heavily invaded by alien plants)	0%	m ²	
Transformed (includes cultivation, dams, urban, plantation, roads, etc.)	90%	3622.5m ²	Sections of the proposed sewerage and water pipelines are located between Critical Biodiversity Areas (CBA) but the sections of the proposed infrastructure are proposed in disturbed areas with no to limited vegetation cover as a result of the road infrastructure.

- (c) Complete the table to indicate:
- the type of vegetation present on the site, including its ecosystem status; and
 - 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	Cape Lowland Alluvial, Critically Endangered (associated with the Non-perennial Rivers).
	Endangered	
	Vulnerable	
	Least Threatened	The natural vegetation on site is classified as Breede Shale Renosterveld, Least Threatened.

Aquatic Ecosystems						
Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	

(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.

The natural vegetation on site is classified as Breede Shale Renosterveld, Least Threatened (Terrestrial Areas) and Cape Lowland Alluvial, Critically Endangered (associated with the Non-perennial Rivers). The impacted areas are however mostly transformed and disturbed as a result of existing roads (formal and informal) and squatter activities.

The Non-perennial rivers that will be impacted have been identified as an Aquatic Ecological Support Area (ESA) and the terrestrial areas to the east of the site as Terrestrial Critical Biodiversity Areas (CBA) in the latest Western Cape Biodiversity Spatial Plan (2017).

Sections of the proposed sewerage and water pipelines are located between Critical Biodiversity Areas (CBA) but the sections of the proposed infrastructure are proposed in disturbed areas with no to limited vegetation cover as a result of the road infrastructure. The last north eastern section of the sewerage pipeline to be constructed will impact on a small section of indigenous vegetation. No threatened or protected species or conservation worthy plants were recorded in this section.

Residential site:

- ESA: Aquatic: 10%
- ESA: Restore: 5%
- Other Natural Area: 20%
- CBA: 3%
- CBA degraded: 3%
- No Natural Area Remaining (squatters): 59%

Pipeline Route:

- ESA: Aquatic: 5%
- ESA: Restore: 50%
- Other Natural Area: 5%
- CBA: 0%
- CBA degraded: 3%
- No Natural Area Remaining (roads): 37%

The ESA identified are not essential for meeting biodiversity targets, but play an important role in supporting the functioning of protected areas or CBAs, and are often vital for delivering ecosystem services. The objective of these ESA's is to be maintained in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised. The CBA areas identified are areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. The objective for these CBA areas is to maintain it 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.

(See Appendix G1)

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.

Erf 907 & remainder of Farm 174 (the site) is approximately 11.2 hectare in size and is currently occupied by informal Structures (shacks) and undeveloped grasslands.

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 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):	The site is bordered by rivers (north and south) and with the exception of the landfill, Forrest Street and some informal residential areas to the south, the site is surrounded by untransformed areas.			

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

residential area – Bonnievale - 688 m (south west)
 industrial area – 2km (south-west)
 Agri-industrial – 1km (Bonnievale Abattoir) (south-east)

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.).

Langeberg is a Local Municipality within the Cape Winelands District Municipality (CWDM). The CWDM covers an approximate area of 22 309 km². The Langeberg Municipality covers a total area of approximately 4 517.4 km² (which includes 1184.54km² of former Cape Winelands District Municipal Area land. The former CWDMA area which now falls within the Langeberg Municipal Area consists mostly of extensive farming, natural veld and large game farms.

Langeberg includes the towns of Ashton (7727 people), Bonnievale (9092 people), McGregor (3125 people), Montagu (15176 people) and Robertson (21929 people) as well as the rural areas adjacent to and between these towns (29 292 people). 81% of the persons in the Langeberg area are Afrikaans speaking and isiXhosa speaking.

The Langeberg Municipality, is committed to the social and economic development of the people in the area, unemployment and a lack of skills development continue to be one of the biggest problems faced in the Langeberg area. Under the increasing impact of climate change as reported in the Langeberg Municipality Annual report 2016-2017 "*The limitations to water availability force the municipality to implement plans that will ensure that water resources are not depleted*".

Bonnievale is situated on the banks of the Breede River and is surrounded by the Langeberg Mountain Range in the north-east, and the Riviersonderend mountains in the south-west. Having majestic mountains, an ever-flowing Breede River and a rolling, green sea of beautiful fruit and wine farms lining the way, it is one of the most beautifully situated towns in the Western Cape. The name Bonnievale actually means Beautiful Valley.

Access to basic services is a basic human right. It is also an indication of the quality of life of residents. The extent of human development within a municipality is largely influenced by access to housing and associated basic services such as water, electricity, sanitation and refuse removal, with high access levels implying better human development and vice versa. This report uses data from Census 2011 and the Community Survey of 2016 for the analysis of access to basic services.

Statistics South Africa estimates the number of households in the Langeberg municipal area increased from 25 125 in 2011 to 28 401 in 2016. The biggest source of water in Langeberg in 2016 was access to piped water inside dwellings/yards/or within 200 metres. Access to piped water for these categories increased by 11.8 per cent from 24 975 households in 2011 to 27 919 households in 2016. In the Langeberg municipal area, a total of 26 896 households (94.51 per cent) currently have access to flush toilets connected to a sewerage system/flush toilet. Approximately, 4.7 per cent of households must therefore make do with other sources of sanitation, meaning facilities other than flushed and chemical (i.e. pit latrine, ecological toilets and bucket toilets). Access to flush toilets connected to a sewerage system in Langeberg improved by 19.8 per cent from 22 445 households in 2011 to 26 896 households in 2016 and by 26.0 per cent across the District over the same period. The majority of households in the Langeberg area reside in formal dwellings (89.3 per cent) whilst 10.7 per cent of the households reside either in informal, traditional and other dwellings in 2016. Access to formal dwellings increased by 11.3 per cent from 22 791 households in 2011 to 25 363 households in 2016 and by 17.2 per cent across the District over the same period.

The number of dwellings in Boekenhoutskloof is 257.

References: Langeberg Annual Report 2016-2017, Integrated Development Plan Review 2015/16 and Census 2011

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:	<ul style="list-style-type: none"> • the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length • the re zoning of a site exceeding 10 000m² in extent 		
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, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	ADMINISTERING AUTHORITY and how it is relevant to this application	TYPE Permit/license/authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the SAHRA and CARA, coastal discharge permit, etc.)	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	In progress
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) [NEMWA] and relevant regulations	Western Cape Department of Environmental Affairs and Development Planning	Relaxation of buffer zone under the ECA	In progress
National Environmental Management: Biodiversity Act 10 of 2004 [NEMBA] and relevant regulations	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 and Sanitation	Water Use License	In progress
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, 61 Of 2003		Littering and causing a nuisance	N/A
Constitution of the Republic of South Africa, 1996		General application to individual rights of all on and adjacent to the Sites	N/A
National Heritage Resources Act 25 of 1999 [NHRA]	Heritage Western Cape	N/A	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
Environment Conservation Act, 73 Of 1989, Western	Western Cape Department of	N/A	N/A

Cape Noise Control Regulations	Environmental Affairs and Development Planning		
National Forests Act, 84 Of 1998	National Department of Agriculture, forestry and Fisheries Western Cape Department of Agriculture	N/A	N/A
Hazardous Substances Act, 15 Of 1973	Department of Labour	N/A	N/A
National Environmental Management: Protected Areas Act 57 Of 2003		N/A	N/A
Occupational Health And Safety Act 85 Of 1993	Department of Labour	N/A	N/A
Compensation For Occupational Injuries And Diseases Act 130 Of 1993	Department of Labour	N/A	N/A
Basic Conditions Of Employment Act 75 Of 1997	Department of Labour	N/A	N/A
Labour Relations Act 66 Of 1995	Department of Labour	N/A	N/A
Tobacco Products Control Act 83 Of 1993		N/A	N/A
Langeberg Local Municipality Water By-Law	Stellenbosch Local Municipality	N/A	N/A
Cape Winelands District Municipality Municipal Health By-Laws	Cape Winelands District Municipality	N/A	N/A

POLICY/ GUIDELINES	ADMINISTERING AUTHORITY
Guideline on Public Participation	Western Cape Department of Environmental Affairs and Development Planning
Guidelines on Alternatives	Western Cape Department of Environmental Affairs and Development Planning
Guideline on Need and desirability	Western Cape Department of Environmental Affairs and Development Planning
Guideline for Environmental Management Plans (EMP's)	Western Cape Department of Environmental Affairs and Development Planning
Circular EADP 0028/2014: "One Environmental Management System".	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:
NEMA	Various general activities, including but not limited to, the control of emergency incidents and the care and remediation of environmental damage.
NEMWA	Listed waste management activities and the requirements for a license for usage of general waste.
NEMBA	The management and conservation of biological diversity and the sustainable use of indigenous biological resources.
NEMAQA	Activities that may affect the air quality on site and the environment

	surrounding it.
NWA	Impacts and pollution to ground and surface water. Assessed if a water use authorisation under section 21 is required.
CARA	Weeds and the tolerance thereof.
National Health Act	Littering and causing a nuisance.
Constitution of the RSA	General application to individual rights of all on and adjacent to the sites.
Fencing Act	The erection and maintenance of fences.
National Building Regulations and Building Standards Act	The erection of new buildings.
NHRA	Development of the site and dealing with graves and burial sites and any structures older than 60 years.
NVFFA	Any activities that could result in the start of veld fires.
FFFARSRA	Activities associated with pest control and the use of agricultural remedies. Activities associated with providing / manufacturing fertiliser.
Guideline on Public Participation	The public participation guideline was used to determine the best way to define and inform all relevant I&APs of the project. The guideline was also used to determine the most effective communication strategies for public participation.
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 base 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 impacts identified in the report.
Circular EADP 0028/2014: "One Environmental Management System".	The circular was consulted to determine whether the report has been compiled in accordance with all the requirements in terms of the 2014 EIA Regulations.

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
1. Cape Winelands District Municipality 2. Langeberg Municipality 3. CapeNature 4. Breede-Gouritz Catchment Management Agency 5. DEA&DP Waste Management 6. DEA&DP Pollution and Chemicals Management 7. Heritage Western Cape 8. Department of Health 9. DEA&DP Development Management (Region 2: DECIDING AUTHORITY)			A copy of this report will be circulated to key departments for comment.

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**).

None received.

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.

None received. A copy of this report will be circulated to key departments

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 Off-Grid Eco-Village Projects and new development areas in the SDF, but a rezoning to Residential zone 1 approval is needed.			
2. Will the development be in line with the following?			
(a) Provincial Spatial Development Framework ("PSDF").	YES	NO	Please explain
The proposed development is on an area included in the urban edge and SDF. The proposed development is already disturbed and characterised as informal housing which is consistent with the PSDF to manage urban informality proactively through the Upgrading Informal Settlements Programme (UISP) and ABS programs, and managed land settlement.			
(b) Urban edge / edge of built environment for the area.	YES	NO	Please explain
The property is located inside the designated urban edge and identified for Off-Grid Eco-Village Projects and new development areas in the SDF.			
(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 proposed development is on an area included in the urban edge and SDF. The proposed development is already disturbed and characterised as informal housing in the IDP and SDF.			
(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
The proposed development is on an area included in the urban edge and SDF. The proposed development is already disturbed and characterised as informal housing.			
(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 proposed development is on an area included in the urban edge and SDF. The proposed development is already disturbed and characterised as informal housing. Langeberg Municipality is trying to address its inherited backlogs for basic service delivery.			
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 proposed development is on an area included in the urban edge and SDF. The proposed development is already disturbed and characterised as informal housing. Langeberg Municipality is trying to address its inherited backlogs for basic service delivery.			
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
Access to basic services is a basic human right. It is also an indication of the quality of life of residents. The extent of human development within a municipality is largely influenced by access to housing and associated basic services such as water, electricity, sanitation and refuse removal, with high access levels implying better human development and vice versa. The number of dwellings in Boekenhoutskloof is 257 and the informal settlement does not have access to piped water or formal sanitation.			
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
See appendix K1.			

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
See appendix K1.			
8. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
Upgrading Informal Settlements.			
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 proposed development is on an area included in the urban edge and SDF. The proposed development is already disturbed and characterised as informal housing. Langeberg Municipality is trying to address its inherited backlogs for basic service delivery.			
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
Rivers and Ecological Support Areas will be impacted on but this can be managed through the implementation of an EMP.			
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 project will have a positive effect on water and sanitation provision to the local communities. The visual character / sense of place will not be affected as the site is characterised as informal housing.			
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
The proposed development is already disturbed and characterised as informal housing.			
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?			
<ul style="list-style-type: none"> • Positive impacts include the provision of bulk water supply and sanitation to the local communities. • During the construction phase the project will also contribute to local job creation. • Impact on river and freshwater habitat. • Soil erosion and Dust. 			
14. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain
The proposed development is already disturbed and characterised as informal housing. Through the implementation of an EMP and MMP, environmental conditions can be improved compared to the current state which is being degraded by human activities.			
15. What will the benefits be to society in general and to the local communities?			Please explain
Positive impacts include the provision of bulk water supply and sanitation to the local communities. During the construction phase the project will also contribute to local job creation. Implementation of an EMP and MMP will result in the improved state of the site and adjacent river.			
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 must be included as EA conditions and into the EMP. All involved in the planning and design 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 section 2 were taken in consideration and used in the assessments, mitigations and recommendations throughout this report. All specialists involved in the planning and design of the activity are independent and ensured that the effects of the activities on the environment receive adequate consideration before recommendations and actions taken in connection with them are proposed to be included in the EA conditions and EMP. Adequate and appropriate opportunity for public participation is provided and included in Appendix F as per the guidelines and regulations in decisions that may affect the environment. The consideration of environmental attributes in management and decision making which may have a significant effect on the environment was ensured. The modes of environmental			

management best suited to ensure that a particular activity is pursued in accordance with the principles of environmental management set out in section 2, was identified and employed. Refer to section below.

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

A public participation process as described in the legislation and guidelines is followed. Refer to Appendix F.

The proposed development will not result in significant vegetation clearing or loss and should not lead to the loss of any conservation worthy species or habitat and ecological functioning. The opinion of the EAP concludes that this development should not result in the loss of any species.

The proposed development will not disturb the sites that constitute the nation's cultural heritage. The proposed development will not exceed or exploit renewable resources to an extent that they reach a level beyond which their integrity is jeopardised. A risk-averse and caution first approach is being applied.

All impacts and aspects were assessed and identified. An environmental management programme and maintenance management plan is included. This will guide the responsibilities in execution as stipulated above. The social, economic and environmental impacts of activities, including disadvantages and benefits, were considered, assessed and evaluated, and decisions are appropriate in the light of such consideration and assessment.

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:

No other property alternatives were assessed as no feasible or reasonable property alternative exists. The development site is situated within the agreed urban edge of the town of Bonnievale and has been identified in the Langeberg Municipality SDF for residential development. Considering the housing backlog and the fact that the site is **currently used as an informal settlement** there is an urgent need for this project. This site is therefore the only feasible location for the proposed development.

(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 alternative exists. The development area is situated within the agreed urban edge of the town of Bonnievale and has been identified for residential development in the Langeberg Municipality SDF. Due to the need for housing and services in the community and the fact that the site is currently used as an informal settlement, this activity was the only feasible option.

(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:

No other layout alternatives were assessed as no feasible or reasonable layout exists, this is due to the following:

- The proposed layout takes into account the existing roads and informal settlements.
- The proposed community facilities (4 units) are located as such due to the presence of existing toilets, water tanks and taps).
- The two open space erven are located specifically due to the pole transformer.
- The layout takes into consideration the requirement for bulk services (water, sewage and storm water).
- Meets the need and desirability as manifested by the community.
- The pipeline route follows informal roads so to reduce any environmental impact.

(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:

No other technology alternatives were considered.

The minimum standards proposed for the civil services and pertaining infrastructure will comply with the recommendations made by the Department of Human Settlements (Western Cape Government) in respect of the A Grade Engineering Services subsidy.

This is also in compliance with the "Guidelines for Human Settlements, Planning and Design" as compiled under patronage of the Department of Housing by CSIR Building & Construction Technology (also known as the "Red Book") as well as any specific requirements prescribed by the Langeberg Municipality.

(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:

Once operational, the only activities that will be undertaken are related to maintenance and upkeep of the development and associated infrastructure. Operation in accordance with EMP and MMP.

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

The No-Go option will result in the site remaining as is presently; a vacant disturbed municipal area with an ever-increasing informal settlement established on the site.

The site at present has no services provided to the informal settlement thus resulting in the deterioration of the site. The Need and Desirability as manifested in the Langeberg Municipality SDF supports the proposed Residential development on the identified site, as the need in this particular area is great. The proposed development will provide temporary jobs to the community during the construction phase. The development will provide new infrastructure for the delivery of services for the community.

The expanding informal settlement is resulting in impacts on the adjacent rivers and the informal river crossing impacting on the river and results in increased erosion etc. Litter and uncontrolled impacts on adjacent vegetation will proliferate if the no-go option is implemented.

(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:

No additional alternatives were assessed - see summary below

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

Location alternatives - No other property alternatives were assessed as no feasible or reasonable property alternative exists. The development site is situated within the agreed urban edge of the town of Bonnievale and has been identified in the Langeberg Municipality SDF for residential development. Considering the housing backlog and the fact that the site is currently used as an informal settlement there is an urgent need for this project. This site is therefore the only feasible location for the proposed development.

Activity alternatives - No other activity alternatives were assessed as no feasible or reasonable activity alternative exists. The development area is situated within the agreed urban edge of the town of Bonnievale and has been identified for residential development in the Langeberg Municipality SDF. Due to the need for housing and services in the community and the fact that the site is currently used as an informal settlement, this activity was the only feasible option.

Layout alternatives - No other layout alternatives were assessed as no feasible or reasonable layout exists, this is due to the following:

- The proposed layout takes into account the existing roads and informal settlements.
- The proposed community facilities (4 units) are located as such due to the presence of existing toilets, water tanks and taps).
- The two open space erven are located specifically due to the pole transformer.
- The layout takes into consideration the requirement for bulk services (water, sewage and storm water).
- Meets the need and desirability as manifested by the community.
- The pipeline route follows informal roads so to reduce any environmental impact.

Technology alternatives - No other technology alternatives were considered. The minimum standards proposed for the civil services and pertaining infrastructure will comply with the recommendations made by the Department of Human Settlements (Western Cape Government) in respect of the A Grade Engineering Services subsidy. This is also in compliance with the "Guidelines for Human Settlements, Planning and Design" as compiled under patronage of the Department of Housing by CSIR Building & Construction Technology (also known as the "Red Book") as well as any specific requirements prescribed by the Langeberg Municipality.

Operational alternatives - Once operational, the only activities that will be undertaken are related to maintenance and upkeep of the development and associated infrastructure. Operation in accordance with EMP and MMP.

No-Go - The No-Go option will result in the site remaining as is presently; a vacant disturbed municipal area with an ever-increasing informal settlement established on the site. The site at present has no services provided to the informal settlement thus resulting in the deterioration of the site. The Need and Desirability as manifested in the Langeberg Municipality SDF supports the proposed Residential development on the identified site, as the need in this particular area is great. The proposed development will provide temporary jobs to the community during the construction phase. The development will provide new infrastructure for the delivery of services for the community. The expanding informal settlement is resulting in impacts on the adjacent rivers and the informal river crossing impacting on the river and results in increased erosion etc. Litter and uncontrolled impacts on adjacent vegetation will proliferate if the no-go option is implemented.

- (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:

NA

2. PREFERRED ALTERNATIVE

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

The development area is situated within the agreed urban edge of the town of Bonnievale and has been identified for residential development in the Langeberg Municipality SDF. Due to the need for housing and services in the community and the fact that the site is currently used as an informal settlement, this activity was the only feasible option.

No other layout alternatives were assessed as no feasible or reasonable layout exists, this is due to the following:

- The proposed layout takes into account the existing roads and informal settlements.
- The proposed community facilities (4 units) are located as such due to the presence of existing toilets, water tanks and taps).
- The two open space erven are located specifically due to the pole transformer.
- The layout takes into consideration the requirement for bulk services (water, sewage and storm water).
- Meets the need and desirability as manifested by the community.
- The pipeline route follows informal roads so to reduce any environmental impact.

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 activity will not have a significant adverse cumulative effect on topography, slopes, soils and groundwater resources, if operational and construction mitigation measures are implemented.

Special notice should be made of the potential impact on the groundwater resources. Natural drainage on site is expected to follow the topography, draining downslope towards the drainage lines occurring on site. These drainage lines are expected to link to regional drainage pathways within the area and therefore regional groundwater as a whole is vulnerable to contamination. Contaminants and pollutants from both point and diffuse sources would quickly enter the regional groundwater system. Any aquifers in the area are likely to be in hydraulic continuity with the Breede River groundwater regime, and therefore careful consideration will have to be given to any services or developments that could impact negatively on groundwater quality.

The sensitive natural and cultural land uses were assessed during the EIA process and the development layout is designed according to such parameters.

The only sensitive physical aspects identified are the rivers. Mitigation measures to prevent and manage habitat fragmentation; loss of ecological connectivity and erosion, noise and soil erosion and dust has been addressed in the environmental management plan.

(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
<p>The natural vegetation on site is classified as Breede Shale Renosterveld, Least Threatened (Terrestrial Areas) and Cape Lowland Alluvial, Critically Endangered (associated with the Non-perennial Rivers). The impacted areas are however mostly transformed and disturbed as a result of existing roads (formal and informal) and squatter activities. The Non-perennial rivers that will be impacted have been identified as an Aquatic Ecological Support Area (ESA) and the terrestrial areas to the east of the site as Terrestrial Critical Biodiversity Areas (CBA) in the latest Western Cape Biodiversity Spatial Plan (2017). Sections of the proposed sewerage and water pipelines are located between Critical Biodiversity Areas (CBA) but the sections of the proposed infrastructure are proposed in disturbed areas with no to limited vegetation cover as a result of the road infrastructure. The last north eastern section of the sewerage pipeline to be constructed will impact on a small section of indigenous vegetation. No threatened or protected species or conservation worthy plants were recorded in this section.</p> <p><u>Residential site 11.2ha:</u></p> <ul style="list-style-type: none"> • ESA: Aquatic: 10% • ESA: Restore: 5% • Other Natural Area: 20% • CBA: 3% • CBA degraded: 3% • No Natural Area Remaining (squatters): 59% <p><u>Pipeline Route (4025 meters long by 1m = 4025m²):</u></p> <ul style="list-style-type: none"> • ESA: Aquatic: 5% • ESA: Restore: 50% • Other Natural Area: 5% • CBA: 0% • CBA degraded: 3% • No Natural Area Remaining (roads): 37% 		

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
A limited amount of terrestrial vegetation will be cleared / lost as a result of the proposed development. The majority of the development footprint has been transformed due to roads and informal settlement.		
There will be an impact on any aquatic ecosystems due to the proximity of the Residential development to the river, the river crossing (box culvert) and water and sewage pipelines crossing the river. See Appendix G1 for Freshwater Impact Assessment.		
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
Some CBA and ESA areas will be impacted upon. Cape Lowland Alluvial is a Critically Endangered vegetation type and is associated with the Non-perennial Rivers. No threatened or protected species or conservation worthy plants were recorded - FRESHWATER AND TERRESTRIAL ECOLOGICAL IMPACT ASSESSMENT – Appendix G1.		
Describe the manner in which any other biological aspects will be impacted:		
None.		
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 (ix) the objects of NEM: ICMA, where applicable.		
NA		

(c) Social and Economic aspects:

What is the expected capital value of the project on completion?	R Unknown
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the project?	R NA
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?	Unknown
What is the expected value of the employment opportunities during the development phase?	R Unknown
What percentage of this will accrue to previously disadvantaged individuals?	NA%
How will this be ensured and monitored (please explain):	
Will make use of local and respected contractors as far as possible. For specialised equipment and installations, outside specialist resources will be used. Preference will be giving to employment of local Robertson residents. Langeberg Municipality always apply BEE policy and legislation in their tender process.	

How many permanent new employment opportunities will be created during the operational phase of the project?	0
What is the expected current value of the employment opportunities during the first 10 years?	R NA
What percentage of this will accrue to previously disadvantaged individuals?	NA%
How will this be ensured and monitored (please explain):	
NA	
Any other information related to the manner in which the socio-economic aspects will be impacted:	
NA	

(d) Heritage and Cultural aspects:

Notice of Intent to Develop has been submitted to Heritage Western Cape to determine impacts and specialist studies required in terms of cultural and historical aspects potentially to be impacted upon. HWC has commented that "You are hereby notified that, since there is no reason to believe that the proposed subdivision, rezoning and infrastructure upgrades will impact on heritage resources, no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required. However, should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately and Heritage Western Cape must be notified without delay."

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?	Approx. 10m ³	
Rubble and standard construction waste.		

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?	Approximately 1m ³ per residential unit per week.	
Domestic waste associated with residential developments. No hazardous waste is expected to be generated and waste will be normal household waste. Refuse removal will be done by the Langeberg Municipality as part of their normal services provided.		

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?	NA m ³	
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?	Approx. 10m ³	
At the municipal landfill site. Currently, the Bonnievale WDF receives garden and park waste and builder's rubble. The Bonnievale WDF will reach capacity by August 2036.		
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
Will the development proposal produce waste that will be treated and/or disposed of at another facility other than into a municipal waste stream?	YES	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:
 NA

(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?	NA	m ³
Describe the emissions in terms of type and concentration and how these will be avoided/managed/treated/mitigated:		
NA		

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:	NA	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.		
The proposed development does require a Water Use Licence from Breede Gouritz Catchment Management agency as the activities will be within the regulated zone (100m from water course).		

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

4. POWER SUPPLY

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

Municipality.

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

NA

5. ENERGY EFFICIENCY

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

NA

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

NA

6. TRANSPORT, TRAFFIC AND ACCESS

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

The current river crossing to access the informal settlement is a gravel informal road that dips down into the river.

It is proposed to upgrade the road over the Non-perennial River. The development will be accessed via an existing gravel road from Bonnievale. All new roads for the proposed development will be provided with a permanent surface finish (25mm Asphalt) and will be 4.5m wide. Edging/kerbs will be

provided on the sides of the roads in accordance with the standards. A gravel sidewalk will be provided on one side of the road.

The total estimated area to be surfaced is 13 650m² with approximately 3 000m of kerbs and 3 100m of edging. It is anticipated that the existing road network leading up to the development will be able to accommodate the increase in traffic.

The southern ravine will need to be crossed to access to the development. An anticipated culvert size of approximately 4 x 3,0m x 1,8m will need to be installed for the crossing of the ravine to accommodate the 1:100-year flood.

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

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

Due to construction machinery during the construction/development phase. Construction machinery may cause noise disturbance to the directly adjacent land users/ owners. It is not anticipated that the noise will be considerable and will only be temporary. Noise due to construction activities is unlikely to cause a nuisance to adjacent residential areas.

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

8. OTHER

NA

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.

Based on the EAP's assessment, issues raised by IAPs and the project team, specialist studies were undertaken to provide information to address the concerns and assess the impacts of the proposed development on the environment.

The various specialists have provided baseline information. This information has been used by the planning team to inform the current development proposals. The specialists are provided with set criteria for undertaking their assessments, to allow for comparative assessment of all issues. These criteria are detailed in the Terms of Reference to each specialist. These criteria are based on the EIA Regulations.

(b) Please describe any gaps in knowledge.

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

(c) Please describe the underlying assumptions.

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

- The information provided by the client and all specialists 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 and as collected by the EAP during site surveys etc. has been used to inform the current development proposals.

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:	<p><u>Construction</u></p> <ul style="list-style-type: none"> • Soil erosion and dust – low • Surface and ground water pollution – medium • Disturbance to subsurface geological layers – low • Impact on sensitive environments (river) – low • Degradation / loss of naturally occurring / indigenous flora and habitats – low • Increase in jobs – positive • Traffic impacts – low • Damage to existing infrastructure – low • Waste impacts – low • Noise – low <p><u>Operational</u></p> <ul style="list-style-type: none"> • Impact on sensitive environments (river) – low • Traffic impacts – positive • Infrastructure failure– low • Waste impacts – positive • Services provision - positive <p><u>Decommissioning</u></p> <p>Same as construction but decommissioning not foreseeable/highly unlikely – road, services and river crossing for established residential community.</p>
Alternative 2:	NA
Alternative x:	NA
No-go Alternative:	<p>The No-Go option will result in the site remaining as is presently.</p> <p>No-go option</p> <ul style="list-style-type: none"> • Soil erosion – medium • Surface and ground water pollution -medium • Impact on sensitive environments (river) – medium • Traffic impacts – medium

- (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).

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

PLEASE SEE APPENDIX J

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

The property was the only alternative considered. The proposed development was assessed against the no go or no development option.

- (d) Outcome of the site selection matrix.

The property was the only alternative considered. The proposed development was assessed against the no go or no development option.

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.

"From the results of the application of the IHIA to the impacted site, it is evident that the rivers reach is modified and that the loss of natural habitat, biota and basic ecosystem functions is extensive. Instream impacts included a large impact from flow modifications, inundation as well as bed and channel modifications. Overall, the site achieved a 67.6 % score for instream integrity.

Riparian impacts included a large impact from flow modifications, and bed and channel modifications. Overall, the site achieved a 75.2 % score for instream integrity. The site obtained an overall IHIA rating of 71.4%, which indicates the loss of natural habitat, biota and basic ecosystem functions is moderate (Class C conditions).

The score attained for the VEGRAI indicated that the riparian system falls into the category C. This indicates that the loss of natural habitat, biota and basic ecosystem functions is moderately modified. A loss and change of natural habitat and biota have occurred but the basic ecosystem functions are still predominantly unchanged.

EIS considers a number of biotic and habitat determinants surmised to indicate either importance or sensitivity. The determinants are rated according to a four-point scale. The median of the resultant score is calculated to derive the EIS category. The non-perennial river is considered to be of high ecological importance.

Sections of the proposed sewerage and water pipelines are located in a Critical Biodiversity (CBA) and Ecological Support areas (ESA). The sections of the proposed infrastructure inside the CBA and ESA identified areas is however disturbed with no to limited vegetation cover as a result of the road infrastructure. The pipelines will be constructed in the informal roads and the reserves that will result to no or limited vegetation clearing. The last north eastern section of the sewerage pipeline to be constructed will impact on a small section of indigenous vegetation. No threatened or protected species or conservation worthy plants were recorded in this section.

Mitigation-Loss of freshwater ecology habitat:**Essential mitigation measures:**

- Limit the footprint area of the construction activity to what is absolutely essential in order to minimise the loss of aquatic habitats in the area.
- Keep all demarcated sensitive zones outside of the construction area off limits during the construction phase of the project;
- On-going aquatic ecological monitoring must take place on a 6-monthly basis by a suitably qualified assessor.

Recommended mitigation measures

- Permit only essential construction personnel within 32m of all riparian systems;
- Restrict construction activities to the drier summer months, if possible, to avoid sedimentation and siltation of riparian features in the vicinity of the proposed development and aim for completion in early spring at which time revegetation should take place allowing for a full summer growing season to become established.

Mitigation-Disturbance to subsurface geological layers:

Mitigation and management for affecting geology is to ensure that removal of soil is kept to a minimum – removal of soil should only be in areas where infrastructure will be established. Disturbance through the river must preferably be in summer and definitely not when the river flows. The pipe and culvert must be laid and constructed and the area compacted in one time and the area must be immediately filled, shaped, compacted and rehabilitated.

Mitigation- Degradation / loss of naturally occurring / indigenous flora and habitats.:

- Undertake construction activities only in identified and specifically demarcated areas.
- Invasive vegetation to be removed during construction to be disposed of at landfill site in such a manner that seeds must not be able to spread from the disposal site or during transportation.
- At no point may construction equipment stand unauthorised within or near the river.
- All excess sediment removed from the watercourses must be utilised as part of the building activities or be removed from site. At no point may this material be dumped on site or within any of the other freshwater features identified within the surrounding area. Topsoil will have a high density of alien invasive seeds which will need to be controlled into the operational phase.
- One culvert crossing is proposed over the river to gain access. Care must be taken when constructing the culverts to ensure that the design accommodates a 1 in 100-year flood event and that the base levels are maintained so that no erosion or ponding of water occurs surrounding the crossing.
- Soil surrounding the wingwalls must be suitably backfilled and sloped (minimum of a 1:3 ratio) and concrete aprons as well as gabion mattresses should be installed both up and downstream for energy dissipation and sediment trapping.
- All soils within the river surrounding the culvert must be loosened on completion of works to allow for revegetation.

Mitigation-Damage to existing infrastructure:

- Care should be taken when conducting construction activities in close proximity to infrastructure and private property;
- Should any damage occur to existing infrastructure or private property as a result of construction activities; the relevant service provider / landowner must be contacted and the repair/replacement must be commissioned to the satisfaction of the service provider / landowner. Should spillage occur, the BGCMA and DEA&DP: Pollution and chemical management directorate must be informed immediately.

Mitigation-Waste management:

- All waste generated on site shall be collected and disposed of at a registered landfill facility;
- All safe disposal certificates and waste manifests from service providers to be kept and maintained;
- All staff to receive training on correct waste management practices.

Mitigation-Infrastructure failure:

- Regular inspection and maintenance of the sewer pipeline.

- Infrastructure failure reported or identified to be fixed as a priority.
- Spillage of raw sewerage to be mitigated and remediated where required.
- Should any damage occur to existing infrastructure or private property as a result of construction activities; the relevant service provider / landowner must be contacted and the repair/replacement must be commissioned to the satisfaction of the service provider / landowner. Should spillage occur, the BGCMA and DEA&DP: Pollution and chemical management directorate must be informed immediately.

The proposed project form part of service delivery to the proposed upgrade of the informal settlement project and the upgrade of water and sewerage pipelines and new road crossing is required.

Based on the impact assessment it is evident that there are six possible impacts on the freshwater ecology of the area observed. In considering the impacts and mitigation, it is assumed that a high level of mitigation will take place without high prohibitive costs. From the table it is evident that prior to mitigation, the impacts on the loss of freshwater ecology habitat, disturbance to subsurface geological layers, degradation / loss of naturally occurring / indigenous flora and habitats are medium level impacts, which can be mitigated and will be reduced to low level impacts. The other three impacts identified all has low impacts that is reduce to very low with the proposed mitigation measures."

See APPENDIX G1- FRESHWATER AND TERRESTRIAL ECOLOGICAL IMPACT ASSESSMENT.

4. ENVIRONMENTAL IMPACT STATEMENT

Provide an environmental impact statement of the following:

(i) A summary of the key findings of the EIA.		
<u>Construction</u>		
<ul style="list-style-type: none"> • Soil erosion and dust – low • Surface and ground water pollution – medium • Disturbance to subsurface geological layers – low • Impact on sensitive environments (river) – low • Degradation / loss of naturally occurring / indigenous flora and habitats – low • Increase in jobs – positive • Traffic impacts – low • Damage to existing infrastructure – low • Waste impacts – low • Noise – low 		
<u>Operational</u>		
<ul style="list-style-type: none"> • Impact on sensitive environments (river) – low • Traffic impacts – positive • Infrastructure failure– low • Waste impacts – positive • Services provision - positive 		
<u>Decommissioning</u>		
Same as construction but decommissioning not foreseeable/highly unlikely – road, services and river crossing for established residential community.		
(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.		
<u>Construction</u>		
<ul style="list-style-type: none"> • Soil erosion and dust – low 		

- Surface and ground water pollution – medium
- Disturbance to subsurface geological layers – low
- Impact on sensitive environments (river) – low
- Degradation / loss of naturally occurring / indigenous flora and habitats – low
- Increase in jobs – positive
- Traffic impacts – low
- Damage to existing infrastructure – low
- Waste impacts – low
- Noise – low

Operational

- Impact on sensitive environments (river) – low
- Traffic impacts – positive
- Infrastructure failure– low
- Waste impacts – positive
- Services provision - positive

Decommissioning

Same as construction but decommissioning not foreseeable/highly unlikely – road, services and river crossing for established residential community.

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 EMP. The EMP must be attached to this report as Appendix H.

The key mitigation measure is impact avoidance. Where adverse impacts cannot reasonably be prevented, construction should be managed through the effective implementation of the EMP. Please refer to the EMP for more details on the mitigation and management measures.

- (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.

Obtain a water use licence.

- (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 EMP and MMP and the financial cost of all environmental control measures. In accordance with the requirements of the EMP, the applicant must ensure that any person acting on their behalf complies with the conditions / specifications contained in this EMP. In addition, an Environmental Control Officer would be appointed as the onsite implementing agent and would have the responsibility to ensure that their responsibilities are executed in compliance with the EMP. Thus, the applicant has the ability to implement the recommended management, mitigation, and monitoring measures, as appropriate.

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

Not applicable

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

Not applicable

- (f) 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 environmental impacts, biodiversity and ecosystems aspects. In undertaking the investigation and compiling this report, the following has been assumed:

- The information provided by the client 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, the MMP 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 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 applicant must comply with the EMP and MMP and obtain a water use licence.			
(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:			
<ul style="list-style-type: none"> • 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. • The EMP and MMP be strictly followed. • A Water Use Licence be obtained. 			
(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;	5	
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;	10	
iii.	the period for which the portion of the environmental authorisation that deals with non-operational aspects is granted; and	10	
iv.	the period for which the portion of the environmental authorisation that deals with operational aspects is granted.	Unlimited	

SECTION I: APPENDICES

The following appendices must be attached to this report:

APPENDIX		Confirm that Appendix is attached
Appendix A:	Locality map	Y
Appendix B:	Site development plan(s)	Y
	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;	Y
Appendix C:	Photographs	Y
Appendix D:	Biodiversity overlay map	Y
YY	Permit(s) / license(s) from any other Organ of State, including service letters from the municipality.	N (not yet received)
	Appendix E1: Copy of comment from HWC.	Y
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.	Y
Appendix G:	Specialist Report(s)	Y
Appendix H :	EMPr	Y
Appendix I:	Additional information related to listed waste management activities (if applicable)	Y
Appendix J:	If applicable, description of the impact assessment process followed to reach the proposed preferred alternative within the site.	Y
Appendix K:	Any Other (if applicable).	Y

SECTION J: DECLARATIONS- SIGNED COPIES TO BE INCLUDED IN THE FINAL BAR