



REPORT

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

October 2017

PROJECT TITLE

PROPOSED HOUSING PROJECT ON ERVEN 7752 AND 1003, LOUWVILLE, VREDENBURG

REPORT TYPE CATEGORY	REPORT REFERENCE NUMBER	DATE OF REPORT
Pre-Application Basic Assessment Report (if applicable) ¹	3326/18/PA	04 March 2019
Draft Basic Assessment Report ²	-	
Final Basic Assessment Report ³ or, if applicable Revised Basic Assessment Report ⁴ (strike through what is not applicable)	-	

Notes:

1. In terms of Regulation 40(3) potential or registered interested and affected parties, including the Competent Authority, may be provided with an opportunity to comment on the Basic Assessment Report prior to submission of the application but must again be provided an opportunity to comment on such reports once an application has been submitted to the Competent Authority. The Basic Assessment Report released for comment prior to submission of the application is referred to as the "Pre-Application Basic Assessment Report". The Basic Assessment Report made available for comment after submission of the application is referred to as the "Draft Basic Assessment Report". The Basic Assessment Report together with all the comments received on the report which is submitted to the Competent Authority for decision-making is referred to as the "Final Basic Assessment Report".
2. In terms of Regulation 19(1)(b) if significant changes have been made or significant new information has been added to the Draft Basic Assessment Report, which changes or information was not contained in the Draft Basic Assessment Report consulted on during the initial public participation process, then a Final Basic Assessment Report will not be submitted, but rather a "Revised Basic Assessment Report", which must be subjected to another public participation process of at least 30 days, must be submitted to the Competent Authority together with all the comments received.

DEPARTMENTAL REFERENCE NUMBER(S)

Pre-application reference number:	16/3/3/6/7/1/F4/9/3326/18
File reference number (EIA):	
NEAS reference number (EIA):	
File reference number (Waste):	
NEAS reference number (Waste):	
File reference number (Air Quality):	
NEAS reference number (Air Quality):	
File reference number (Other):	
NEAS reference number (Other):	

CONTENT AND GENERAL REQUIREMENTS

Note that:

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

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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
MMP	Maintenance Management Plan
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:	Saldanha Bay Municipality		
Contact person:	Municipal Manager		
Postal address:	Private Bag X12, Vredenburg		
Telephone:	022 701 7000	Postal Code:	7380
Cellular:	NA	Fax:	022 715 1518
E-mail:	mun@sbm.gov.za		

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

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

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

Ms Lauren Abrahams

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

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

***Refer to Appendix K: EAP CV**

EXECUTIVE SUMMARY OF THE PRE-APPLICATION BASIC ASSESSMENT REPORT:

Saldanha Bay Municipality proposes a housing development and associated infrastructure on erven 7752 and 1003 with a total development area of ±5.122 ha. The development proposes the following:

- ±154 residential erven (±120-160m²);
 - 3 open space erven (±1.1158ha);
 - Creche/church erf (±1989m²);
 - Road erf (±1.5539m²);
 - Internal Sewer main pipelines will be 160mm diameter uPVC Class 34, with a maximum capacity of 16 l/s; house connections will be 110mm diameter uPVC Pipes;
 - Internal Water main pipelines will be 160mm/110mm diameter uPVC Class 12, with a maximum capacity of 17 l/s; house connections will be 25/20mm HDPE pipes;
 - Internal Stormwater pipelines will be 375mm/450mm diameter concrete pipes, with a maximum capacity of 150 l/s;
 - Re-route 300mm diameter existing sewer main pipelines, with a maximum capacity of 100 l/s
- All proposed infrastructure will connect to existing Municipal infrastructure.

***See the site development plan located in Appendix B, please refer to details of services in GLS report located in Appendix K3**

Location alternatives – The 2012 – 2017 IDP indicated that the demand for housing, especially affordable housing. The SBM's housing waiting list contained 7 501 people on 31 January 2013 of whom 2948 were seeking GAP housing. The waiting list for Vredenburg alone was 1 966 at 31 January 2013. The municipality have developed a Human settlements plan and consultations were conducted in the community on the various types of housing projects planned for the area and the revised plan will be communicated in due future. The housing development is therefore in line with the Human Settlements Plan which is instrumented to complies with the policies of national legislation and policy frameworks concerned with housing and the Western Cape Human Settlement Plan. It is the municipality's aim to develop sustainable human settlements to improve the quality of household life by providing access to adequate accommodation that is suitable, relevant, appropriately located, affordable and fiscally sustainable. When analyzing the reasons people choose to live where they live, the top three priorities are; affordability, is it a safe neighborhood, and is there access to good schools. It is incumbent on us as municipalities to develop housing projects and use schools and other social and economic facilities as anchors for all neighborhood development plans – in that way the current site was highly ranked as a preferred site for the project.

It is for the reasons above that no other property alternative has been considered in terms of this application.

Activity alternatives - No other activity alternatives were assessed as no feasible or reasonable activity exists. There is a need for residential and housing within the community of Saldanha Bay and no other alternative activities was assessed as they are not feasible or reasonable. Please see motivation regarding needs and desirability in section D – 5 above.

Layout alternatives – The layout presented I this application has been informed by the Municipality, Specialists, engineers and Planners. The decision for this layout has gone through rigorous workshops by all stakeholders as mentioned above taking into account need and desirability, environmental and adjacent urban constraints in relation to the proposed development.

It is for this reason that the proposal presented in this application is the only reasonable and feasible layout alternative other than the no-go alternative.

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

Electricity:

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

Fluorescent lighting must be used in communal spaces where possible.

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

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

Impact Summary

Construction phase:

- Disturbance to subsurface geological layers (**Low impact before mitigation and low impact with mitigation measures**);
- Soil erosion and dust - (**Low impact before mitigation and low impact with mitigation measures**);
- Diesel and oil spills affecting ground and surface water - (**Medium impact before mitigation and low impact with mitigation measures**);
- Impact of noise on surrounding environment - (**Low impact before mitigation and low impact with mitigation measures**);

- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(High impact before mitigation and high impact with mitigation measures)**;
- Jobs - **(Medium impact (POSITIVE) before mitigation and medium impact (POSITIVE) with mitigation measures)**;
- Traffic - **(Medium impact before mitigation and low impact with mitigation measures)**;
- Property value and unforeseen opportunity costs - **(Low impact before mitigation and low with mitigation measures)**;
- Crime and security - **(Medium impact before mitigation and low impact with mitigation measures)**;
- Heritage management - **(Low impact before mitigation and low impact with mitigation measures)**.

Operational phase:

- Impact of noise on surrounding environment - **(High impact before mitigation and medium impact with mitigation measures)**;
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(Low impact before mitigation and low impact with mitigation measures)**;
- Traffic - **(Medium impact before mitigation and medium impact with mitigation measures)**;
- Property value and unforeseen opportunity costs - **(Low impact before mitigation and low impact with mitigation measures)**;
- Crime and security - **(Medium impact before mitigation and low impact with mitigation measures)**;
- Increased demand on services - **(Medium impact before mitigation and low impact with mitigation measures)**.

Decommissioning phase:

- Similar to impacts associated with construction phase.

SECTION A: PROJECT INFORMATION

1. ACTIVITY LOCATION

Location of all proposed sites:	The housing project is proposed on erven 7752 and 1003, Louwville which is located on the corner of Maclon and Kootjieskloof Streets opposite the existing cemetery and Weston Secondary School.
Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site:	Erf 7752 Erf 1003
Property size(s) in m ² for each proposed site:	Erf 7752: 39240.5m ² Erf 1003: 298232.7m ²
Development footprint size(s) in m ² :	±5.1220ha
Surveyor General (SG) 21-digit code for each proposed site:	Erf 7752: C04600140000775200000 Erf 1003: C04600140000100300000

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).

<p>Saldanha Bay Municipality proposes a housing development and associated infrastructure on erven 7752 and 1003 with a total development area of ±5.122 ha. The development proposes the following:</p> <ul style="list-style-type: none"> • ±154 residential erven (±120-160m²); • 3 open space erven (±1.1158ha); • Creche/church erf (±1989m²); • Road erf (±1.5539m²); • Internal Sewer main pipelines will be 160mm diameter uPVC Class 34, with a maximum capacity of 16 l/s; house connections will be 110mm diameter uPVC Pipes; • Internal Water main pipelines will be 160mm/110mm diameter uPVC Class 12, with a maximum capacity of 17 l/s; house connections will be 25/20mm HDPE pipes; • Internal Stormwater pipelines will be 375mm/450mm diameter concrete pipes, with a maximum capacity of 150 l/s; • Re-route 300mm diameter existing sewer main pipelines, with a maximum capacity of 100 l/s <p>All proposed infrastructure will connect to existing Municipal infrastructure. *See the site development plan located in Appendix B, please refer to details of services in GLS report located in Appendix K3</p>

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
(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):

Activity No(s):	Provide the relevant Basic Assessment Listed Activity(ies) as set out in Listing Notice 1 (GN No. R. 983) as amended
27	The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation.
Activity No(s):	Provide the relevant Basic Assessment Listed Activity(ies) as set out in Listing Notice 3 (GN No. R. 985) as amended
12	The clearance of an area of 300 square metres or more of indigenous vegetation - i. Western Cape: 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 Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans.
Activity No(s):	Provide the relevant Scoping and EIR Listed Activity(ies) as set out in Listing Notice 2 (GN No. R. 984) as amended
NOT APPLICABLE	
Activity No(s):	Provide the relevant Category A Waste Management Activity(ies) as set out in List of Waste Management Activities (GN No. R. 921)
NOT APPLICABLE	
Activity No(s):	Provide the relevant Category B Waste Management Activity(ies) as set out in List of Waste Management Activities (GN No. R. 921)
NOT APPLICABLE	

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

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

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

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

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

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

Buildings Provide brief description below:	YES	NO
Saldanha Bay Municipality proposes a housing development and associated infrastructure on erven 7752 and 1003 with a total development area of ±5.122 ha. The development proposes the following: <ul style="list-style-type: none"> ±154 residential erven (±120-160m²); 3 open space erven (±1.1158ha); Creche/church erf (±1989m²); Road erf (±1.5539m²); *See the site development plan located in Appendix B.		
Infrastructure (e.g., roads, power and water supply/ storage) Provide brief description below:	YES	NO
<ul style="list-style-type: none"> Internal Sewer main pipelines will be 160mm diameter uPVC Class 34, with a maximum capacity of 16 l/s; house connections will be 110mm diameter uPVC Pipes; Internal Water main pipelines will be 160mm/110mm diameter uPVC Class 12, with a maximum capacity of 17 l/s; house connections will be 25/20mm HDPE pipes; 		

<ul style="list-style-type: none"> Internal Stormwater pipelines will be 375mm/450mm diameter concrete pipes, with a maximum capacity of 150 l/s; Re-route 300mm diameter existing sewer main pipelines, with a maximum capacity of 100 l/s <p>All proposed infrastructure will connect to existing Municipal infrastructure. *Please refer to details of services in GLS report located in Appendix K3.</p>		
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		

1. 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	Erf 7752 = 3.92405 Erf 1003 = 29.82327	ha
(b) Size of the facility: Indicate the size of the facility where the development proposal is to be undertaken	5.1220	ha
(c) Development footprint: Indicate the area that will be physically altered as a result of undertaking any development proposal (i.e., the physical size of the development together with all its associated structures and infrastructure)	5.1220	ha
(d) Size of the activity: Indicate the physical size (footprint) of the development proposal	5.1220	ha
(e) For linear development proposals: Indicate the length (L) and width (W) of the development proposal	(L) NA	km
	(W) NA	m
(f) For storage facilities: Indicate the volume of the storage facility	NA	m ³
(g) For sewage/effluent treatment facilities: Indicate the volume of the facility (Note: the maximum design capacity must be indicated)	NA	m ³

4. SITE ACCESS

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

(c) Describe the type of access road planned:

The proposed development will link on the northern boundary to Kootjieskloof Street.

A southern boundary access to link to the internal road network via Swavel Street is proposed for future potential development.

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 proposal is for the development of approximately 154 residential erven and associated infrastructure in the existing town of Louwville. The development is proposed on erven 7752 and 1003, Louwville which is located on the corner of Maclon and Kootjieskloof Streets. A church and creche is located on erf 7752 and it is the Municipalities intention of retaining the church and creche within the proposed development.

The proposed development area is made up of the following:

- Existing crèche and church area: approx. 4935m² = 0,494Ha
- Existing sports field area: approx. 20630m² = 2,063Ha
- Mainly undisturbed area: approx. 15000m² = 1,500Ha
- A concrete stormwater channel is located on the southern boundary of the proposed development area. This area will remain undisturbed with most of this area to be zoned as public open space. As such it is not foreseen that t will be heavily impacted upon by the proposed development (impacts associated have been assessed in the impact tables located in Appendix J of this report).

Coordinates of all proposed sites: Latitude (S)	32°	54'	53.71"
Longitude (E)	18°	0'	26.18"

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).

A concrete stormwater channel is located on the southern boundary of the proposed development area. This area will remain undisturbed with most of this area to be zoned as public open space. As such it is not foreseen that t will be heavily impacted upon by the proposed development (impacts associated have been assessed in the impact tables located in Appendix J of this report).





Photograph 1: Concrete stormwater channel adjacent to the proposed development.



Photograph 2: Encased sewer line and footbridge crossing.



Photograph 3: Existing 1/2100 x 900mm culvert crossing at Kootjieskloof Street.



Photograph 4: Footbridge crossing at Kootjieskloof channel.

Take note that a floodline investigation for the affected stormwater channel has been completed and included in Appendix K2 of this report.

The summary and recommendations of the report includes:

The floodlines represent the most severe conditions possible during a 1:50 and 1:100 year return period flood, as it is assumed that the storm will occur over the full catchment and that the stream will convey a peak flood.

According to the survey the low point on Maclon Street is approximately 25m north of the start of the channel. To ensure that the maximum peak flow reaches the existing channel, an open drain or a berm is recommended to divert the overland flow towards the channel. Refer to Drawing 301038-00-SW-DAL-0002-001 in Appendix 2 for position of the drain.

It is recommended that the proposed development be constructed above the expected 1:50 and 1:100 year flood levels and that the floor levels specifically be above the expected 1:100 year flood peak. As a result of the rather steep gradients of the existing channel and the stream vegetation, high flow velocities, above 1.5 m/s, can be expected. This will result in the 1:50 year and 1:100 year floodlines to be quite close to one another. It is thus proposed that the 1:100 year floodlines be used for planning purposes. As a result of the high flow velocities during large interval flood events, erosion on the unlined channel side slopes above the concrete section can be expected. For this reason it is proposed that these unlined side slopes be protected against erosion by the placing of concrete erosion blocks on geotextile to mitigate this possibility.

It is further recommended that any disturbance of vegetation or soil, below the 1:50 and 1:100 year floodline, during the construction works, be re-vegetated and protected against possible erosion.

***The full report is included in Appendix K2.**

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)		
	32°	54'	53.71 "	18°	0'	26.18"
	°	'	"	°	'	"
	°	'	"	°	'	"

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

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

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

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

<p>Locality Map:</p>	<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.</p> <p>Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94; WGS84 co-ordinate system.</p>
<p>Site Plan:</p>	<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.</p> <p>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
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2. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill / mountain	Closed valley	Open valley	Plain	Undulating plain/low hills/inland dunes	Dune	Sea-front
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(b) Provide a description of the location in the landscape.

Louville is a suburb in the town of Vredenburg located in the Saldanha Bay Municipality. The housing project is proposed on erven 7752 and 1003, Louville which is located on the corner of Maclon and Kootjieskloof Streets opposite the existing cemetery and Weston Secondary School. The site has a relatively flat topography. A portion of the development area has been used for recreational sports purposes, and there are number of established paths throughout the development site which serve as thoroughfare for the neighbouring residents. A concrete stormwater channel runs along the southern boundary of the development site. The eastern portion of the development site is indigenous vegetation consisting predominantly of *Oncosiphon suffruticosum* – commonly known as Stinkkruid as well as scattered aliens throughout the site.

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.						
Soils and Geology:						
Land Type: Db299						

Soil: Prismaeutanic and/or pedocutanic diagnostic horizons dominant, B horizons mainly not red.
 Geology: Aeolian sand with limestone and calcrete of the Langebaan Formation and greywacke, phyllite and quartz schist with thin lenses of limestone and grit; Malmesbury Group.

***Source: ENPAT. CapeFarmMapper. 28/02/2019. <https://gis.elsenburg.com/apps/cfm/#>**

Soil Clay and Depth:

Symbol: CA

Class: Soils with a strong texture contrast.

Description: Soils with a marked clay accumulation, strongly structured and a non-reddish colour. In addition, one or more of vertic, melanic and plinthic soils may be present.

Depth: >= 750 mm

Clay: < 15%

***Source: Department of Agriculture, Forestry and Fisheries. CapeFarmMapper. 28/02/2019. <https://gis.elsenburg.com/apps/cfm/#>**

Soil Erodibility:

Erodibility: High

Erodibility Factor: 0.67

***Source: SA Atlas of Climatology and Agrohydrology (R.E. Schulze, 2009). CapeFarmMapper. 28/02/2019. <https://gis.elsenburg.com/apps/cfm/#>**

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.

A concrete stormwater channel runs along the southern boundary of the development site.

Take note that a floodline investigation for the affected stormwater channel has been completed and included in Appendix K2 of this report.

5. THE SEAFRONT / SEA

(a) Is the site(s) located within any of the following areas? (highlight the appropriate boxes).

If the site or alternative site is closer than 100m to such an area, please provide the approximate distance in (m).

AREA	YES	NO	UNSURE	If "YES": Distance to nearest area (m)
An area within 100m of the high water mark of the sea	YES	NO	UNSURE	
An area within 100m of the high water mark of an estuary/lagoon	YES	NO	UNSURE	
An area within the littoral active zone	YES	NO	UNSURE	
An area in the coastal public property	YES	NO	UNSURE	
Major anthropogenic structures	YES	NO	UNSURE	
An area within a Coastal Protection Zone	YES	NO	UNSURE	
An area seaward of the coastal management line	YES	NO	UNSURE	
An area within the high risk zone (20 years)	YES	NO	UNSURE	
An area within the medium risk zone (50 years)	YES	NO	UNSURE	
An area within the low risk zone (100 years)	YES	NO	UNSURE	
An area below the 5m contour	YES	NO	UNSURE	
An area within 1km from the high water mark of the sea	YES	NO	UNSURE	

A rocky beach	YES	NO	UNSURE	
A sandy beach	YES	NO	UNSURE	

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

6. BIODIVERSITY

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

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

Systematic Biodiversity Planning Category	CBA	ESA	Other Natural Area ("ONA")	No Natural Area Remaining ("NNR")
If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan and the conservation management objectives	Approximately 40% of the property is classified as a terrestrial CBA and terrestrial ESA (critically endangered or endangered veg).			
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)	<ul style="list-style-type: none"> • CBA: Terrestrial <ul style="list-style-type: none"> ➤ Definition Areas in a natural condition that is required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. ➤ Management Objective Maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate. • ESA: Terrestrial <ul style="list-style-type: none"> ➤ Definition Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services. ➤ Management Objective Maintain in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised. 			

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

Habitat Condition	Percentage of habitat condition class (adding up to 100%) and area of each in square metre (m ²)	Description and additional comments and observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing/harvesting regimes, etc.)
Natural	0% Ha	NA
Near Natural (includes areas with low to moderate)	40% 2.1ha	The eastern portion (most of erf 1003 which forms part of the development site) is indigenous vegetation consisting predominantly of <i>Oncosiphon suffruticosum</i> – commonly

level of alien invasive plants)			known as Stinkkruid as well as scattered aliens throughout the site. A concrete stormwater channel runs along the southern boundary of the development site. <i>Note that the stormwater channel and areas around the channel is to be excluded from the developable area and is to be zoned as public open space. Please refer to SDP in Appendix B.</i>
Degraded (includes areas heavily invaded by alien plants)	0%	0ha	NA
Transformed (includes cultivation, dams, urban, plantation, roads, etc.)	60%	3.022ha	Erf 7752 is the more disturbed portion of the development site. There is a church and creche located on the property which borders Maclon Street. The property has numerous established paths through the property which serves as thoroughfare for the residents adjacent to the property. A large portion of erf 7753 is used for recreational sports activities.

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

Terrestrial Ecosystems		Description of Ecosystem, Vegetation Type, Original Extent, Threshold (ha, %), Ecosystem Status
Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Critically	NA
	Endangered	Saldanha Granite Strandveld Status 2016: EN Status 2014: Endangered (EN) Status 2011: EN
	Vulnerable	NA
	Least Threatened	NA

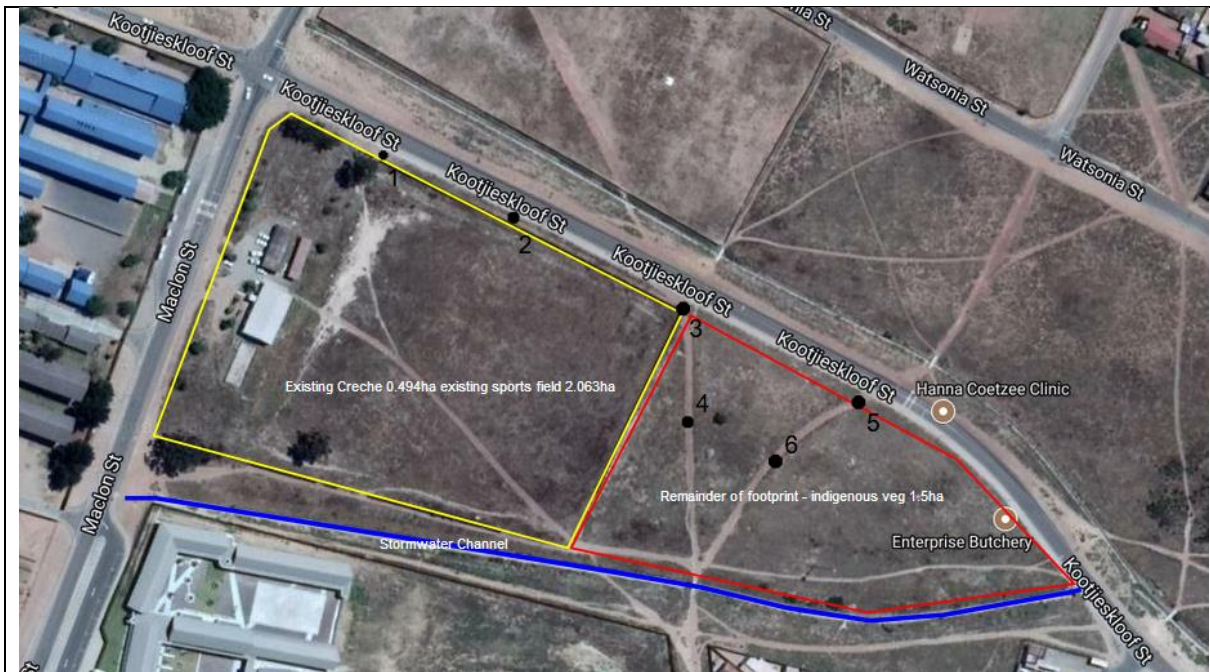
Aquatic Ecosystems							
Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline		
YES	NO	UNSURE	YES	NO	YES	NO	

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

The study area is classified as Saldanha Granite Strandveld vegetation. The vegetation is classified as Endangered by Mucina and Rutherford.

The eastern portion (most of erf 1003 which forms part of the development site) is indigenous vegetation consisting predominantly of *Oncosiphon suffruticosum* – commonly known as Stinkkruid as well as scattered aliens throughout the site. A concrete stormwater channel runs along the southern boundary of the development site.

Erf 7752 is the more disturbed portion of the development site. There is a church and creche located on the property which borders Maclon Street. The property has numerous established paths through the property which serves as thoroughfare for the residents adjacent to the property. A large portion of erf 7753 is used for recreational sports activities.



Map 1: Visual representation of the vantage points from where the photographs were taken from.



Photograph 1: Sports field taken from vantage point 1 looking in a south-easterly direction.



Photograph 2: View of the sports field taken from vantage point 2 looking in an easterly direction.



Photograph 3: Taken from vantage point 2 looking in a westerly direction. The back of the crèche can be seen on the right hand side and the church can be seen on the left hand side.



Photograph 4: Taken from vantage point 2 facing west.



Photograph 5: Taken from vantage point 3 facing east, showing the start of the section containing indigenous vegetation.



Photograph 6: Taken from vantage point 4 facing west.



Photograph 7: Taken from vantage point 4 facing east.



Photograph 8: Taken from vantage point 5 facing south.



Photograph 9: Taken from vantage point 6 facing east.



Photograph 10: Taken from vantage point 6 facing west.

Please refer to Section A – 5.2 for pictures of the concrete stormwater channel running along the southern boundary of the proposed development site.

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.

The eastern portion (most of erf 1003 which forms part of the development site) is indigenous vegetation consisting predominantly of *Oncosiphon suffruticosum* – commonly known as Stinkkruid as well as scattered aliens throughout the site. A concrete stormwater channel runs along the southern boundary of the development site.

Erf 7752 is the more disturbed portion of the development site. There is a church and creche located on the property which borders Maclon Street. The property has numerous established paths through the property which serves as thoroughfare for the residents adjacent to the property. A large portion of erf 7753 is used for recreational sports activities.

8. LAND USE CHARACTER OF THE SURROUNDING AREA

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

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

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

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

Louville is a suburb in the town of Vredenburg located in the Saldanha Bay Municipality. The housing project is proposed on erven 7752 and 1003, Louville which is located on the corner of Maclon and Kootjieskloof Streets opposite the existing cemetery and Weston Secondary School.

Adjacent to the development site is:

- North – is the existing Louville cemetery and residential property.
- West - Weston High School and residential property.
- East - is the church and residential property.
- South - is Louville High School and residential property.

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.).

Historically Vredenburg developed from a farming community, with the town of Vredenburg being founded in 1862 when a church was built at a water spring. During 1880, the first government school was built followed by the post office in 1886. A shortage of fresh water slowed the growth of Vredenburg with the town gaining Municipal Status in 1932.

***Source: Saldanha Bay Municipality 4th Generation Integrated Development Plan 2017 - 2022.**

Introduction

Saldanha Bay Municipality (WC014) is a local municipality located on the West Coast of South Africa, approximately 140 kilometers north of Cape Town. It forms part of the West Coast District Municipality (DC1), situated in the Western Cape Province. The Swartland Municipality borders the municipality in the west by the Atlantic Ocean, in the north by the Bergrivier Municipality and the east.

The Saldanha Bay Municipality covers an area of 2 015 km² (approximately 166 565,48 hectares) and has a coastline of 238km. In total 6.5% of the geographical land are urban land and 93.5% rural land. Overall Saldanha Bay municipality constitutes 6.4% of the entire West Coast geographical land making it the smallest municipal area in the district. The area includes the towns of Hopefield; Langebaan, Saldanha, Jacobsbaai, Vredenburg, Paternoster and St Helenabaai. The administrative office of SBM is located in Vredenburg, with satellite offices in Hopefield, St Helena Bay, Paternoster, Saldanha and Langebaan.

The 2016 Community Survey statistics:

2016 COMMUNITY SURVEY



	Households		Total Population			Youth proportion		Education	Poverty	
	Total	Size	Male	Female	Total	Youth (15-34)	% Youth	Persons > 20 with Grade 12	Head count	Intensity
2011	22835	3,4	49389	49 804	99193	36264	36,6%	24137	2,2%	41,0%
2016	35550	3,1	55584	55588	111173	40696	36,6%	26723	6,7%	45,4%



	Housing							
	Formal		Traditional		Informal		Other	
	Total	%	Total	%	Total	%	Total	%
2011	23564	82%	134	1%	4950	17%	187	1%
2016	26592	75%	835	2%	7855	22%	268	1%

	Water				Sanitation			
	Access to piped water		No access to piped water		Flush/chemical toilet		Other Toilet	
	Total	%	Total	%	Total	%	Total	%
2011	28660	99%	175	1%	27 766	96%	1 068	4%
2016	32063	90%	3487	10%	30496	86%	5055	14%

Population and Age

SBM has the second largest population at 111 173 (2011 Stats: 99 193) in the West Coast District which, according to the 2016 Community Survey conducted by Statistics South Africa. The forecasts of the Western Cape Department of Social Development, is that this total will gradually increase across the 5-year planning cycle and is expected to reach 122 265 by 2023. This equates to an approximate 9.8 % growth off the 2017 base estimate.

The 2016 community results revealed a strong concentration of persons within the age category of 15-34 years at 40 696 in comparison to the 2011 Statistics which reflected a total of 36 264. Whilst the percentage increase remained at 36.6% the in-and-out migration of persons seeking employment and business opportunities will have a significant impact on the municipal services with the realisation of the economic growth and development projects forecasted.

The Western Cape Department of Social Development reflected in the 2016 Socio-Economic Profile that there is an increasing dependency ratio of 44.0, 46.3 and 46.9 for the respective years of 2011, 2017 and 2023. As higher dependency ratios imply greater strain on the working age to support their economic dependents (children and aged), this increase will have far reaching social, economic and labour market implications.

From a national perspective, the relative decrease in the working age population will result in lower tax revenues, pension shortfalls and overall inequality as citizens struggle to tend to the needs of their dependents amidst increased economic hardship. At the municipal level, this decrease will also result in a smaller base from which local authorities can collect revenue for basic services

rendered and will necessitate the prioritisation of spending on social services such as education, health and welfare.

Education

Education remains one of the key avenues through which the state is involved in the economy. In preparing individuals for future engagement in the labour market, policy choices and decisions in the sphere of education play a critical role in determining the extent to which future economic and poverty reduction plans can be realised. Saldanha Bay's matric outcomes peaked at 90.5 per cent in 2013 and levelled out to 87.9 per cent in 2014 and 2015 respectively as per the Western Cape Education Department, 2016; Annual Survey of Public and Independent Schools (ASS), 2015. Learner enrolment in Saldanha Bay increased at an average annual growth rate of 2.7 per cent between 2013 and 2015, which is an indication that access to education has improved in the Saldanha Bay area and should translate into opportunities for an inclusive society.

The learner teacher ratio within Saldanha Bay was at its lowest in 2012 and deteriorated in 2013 and 2014 to more than 30 learners per teacher. The learner to teacher ratio was at its highest in 2015 at 47.7 learners per teacher which is well above the national standard of 30.3 learners per teacher. Factors influencing the learner teacher ratio is the ability of schools to employ more educators when needed as well as schools struggling to collect fees from their learners are more likely to have high learner teacher ratios.

The drop-out rate for learners within Saldanha Bay that enrolled from grade 10 in 2014 to grade 12 in 2016 was recorded at 29.5 per cent, which is slightly higher than the average drop-out rate for the District (29.2 per cent) over the same period. This might be due to the fact that Saldanha Bay has a very high percentage of no-fee schools in the District, as research indicates that learners often drop-out of school due to lack of money.

Households

The household indicators according to the 2016 Community Survey results reflect as follow:

The annual income for households living within the Saldanha Bay municipal area divided into three categories i.e. the proportion of people that fall within the low, middle and high income brackets. Poor households fall under the low income bracket, which ranges from no income to just of R50000 annually (R4166 per month). An increase in living standards can be evidenced by a rising number of households entering the middle and high income brackets.

Approximately 48.6 per cent of households in Saldanha Bay fall within the low income bracket, of which 14.1 per cent have no income. A sustained increase in economic growth within the Saldanha Bay municipal area is needed if the 2030NDP income target of R110000 per person, per annum is to be achieved.

The Non-Financial Census of Municipalities released by Statistics South Africa in 2016 indicates increases or decreases of indigent households per municipal area between 2014 and 2015.

The Saldanha Bay municipal area experienced an increase in the number of indigents between 2014 and 2015, which implies an increased burden on municipal resources.

Poverty Indicators

The intensity of poverty as well as the poverty headcount is analyzed in this section. The intensity of poverty is measured by calculating the Poverty Gap Index, which is the average poverty gap in the population as a proportion of the poverty line. The Poverty Gap Index estimates the depth of poverty by considering how far, on the average, the poor are from that poverty line. The Poverty Gap Index is a percentage between 0 and 100 per cent. A theoretical value of zero implies that no one in the population is below the poverty line. Individuals whose income is above the poverty line have a gap of zero while individuals whose income is below the poverty line would have a gap ranging from 1 per cent to 100 per cent, with a theoretical value of 100 per cent implying that everyone in the population has an income that is below the poverty line or zero. A higher poverty gap index means that poverty is more severe.

This section also provides information on annual household income for residents living within the Saldanha Bay municipal area. Poverty tends to be prevalent in areas where the majority of households fall within the low income bracket.

The higher poverty headcount shows that the number of poor people within the Saldanha Bay municipal area has increased significantly from 2.2 per cent of Saldanha Bay's population in 2011 to 6.7 per cent of the population in 2016. The increasing poverty headcount is a concern as it may strain municipal financial resources as more households demand free basic services.

The intensity of poverty, i.e., the proportion of poor people that are below the poverty line within the Saldanha Bay municipal area, increased from 41.0 per cent in 2011 to 45.4 per cent in 2016. This percentage is high and should be dropping towards zero as income of more households within the Saldanha Bay municipal area moves away from the poverty line.

The Economy

Economic growth at the municipal level is essential for the attainment of economic development, the reduction of poverty and improved accessibility. Fostering this growth requires an in-depth understanding of the economic landscape within which each respective municipality operates.

Saldanha Bay comprised R5.86 billion (or 30.56 per cent) of the District's total R19.16 billion GDP as at the end of 2015. GDP growth averaged 2.95 per cent per annum over the period 2005–2015. This is below the District average of 3.42 per cent. Average annual growth of 2.67 per cent in the post-recessionary period remains below the long-term trend but is on par with the District average of 2.75 per cent.

Saldanha Bay employed 28 per cent (46330 labourers) of the West Coast District's labour force in 2015, and employment grew at a moderate rate of 1.7 per cent per annum on average since 2005, which was above the overall district employment growth rate of 1.1 per cent per annum. Employment growth has nevertheless picked up significantly in the post-recessionary period (2010–2015) averaging 2.5 per cent per annum—this is on par with the district's employment growth rate of 2.7 per cent per annum over this period. Saldanha Bay has experienced job losses prior to and during the recession, but these jobs have been recovered and approximately 5720 (net) additional jobs have been created since 2005 (the majority of which has been created post-2010).

The majority of the workforce in Saldanha Bay operates within the semi-skilled (32.50 per cent) and low-skilled sector (32.14 per cent). The semi-skilled sector was the only sector to experience a contraction in employment over the long term (-0.1 per cent per annum over the period 2005 – 2015). Low-skilled employment remained fairly stagnant over the long term, whilst skilled employment (which makes up 13.35 per cent of the municipality's workforce) grew at a moderate rate of 1.9 per cent per annum since 2005. The informal sector (which employs 22 per cent of the municipality's workforce) experienced robust growth of 7.8 per cent per annum over the past decade.

Primary Sector - Agriculture, Forestry and Fishing - This sector comprised R887.21 million (or 15.15 per cent) of the Municipality's GDP in 2015. It displayed steady growth of 2.85 per cent for the period 2005 – 2015; growth has nevertheless shown significant improvement in the post-recessionary period (the sector experienced a growth rate of 4.49 per cent per annum over the period 2010 – 2015).

Agriculture, Forestry and Fishing employed 31.77 per cent of the area's workforce. Employment over the period 2005 – 2015 has grown by 0.9 per cent per annum on average. Employment growth nevertheless improved significantly in the late half of the decade (growing at a rate of 4.5 per cent per annum on average since 2010). This growth has however been insufficient with regard to recovering all the jobs lost prior to- and during the recession, and as such, 500 jobs have been lost on net since 2005.

The labour force in the primary sector is characterised by a relatively large proportion of unskilled labour. The majority (43.32 per cent or 6 376 workers) of the workforce in Agriculture, Forestry and Fishing operate within the low-skill sector, which has experienced growth of 4.6 per cent per annum

since 2010. The semi-skilled sector employs 32.59 per cent of the industry's workforce and has grown at a rate of 4.4 per cent per annum since 2010. The skilled sector employs the smallest proportion of the municipality's workforce (5.20 per cent or 765 workers). This segment has shown robust growth post-recession (4.7 per cent per annum).

Despite the fast growth since 2010, employment in these three categories has stagnated over the long term (2005 – 2015) and all the jobs lost between 2005 – 2010 have not yet been recovered. The informal sector makes up 18.89 per cent of the industry's workforce and experienced robust long term growth as employment grew by 4.6 per cent per annum over the period 2005 – 2015. Informal employment growth within the Agriculture, Forestry and Fishing industry remained consistent throughout the last 10 years and the informal sector may have absorbed some of the job losses from the other sectors.

The Secondary Sector – Manufacturing - The manufacturing sector comprised R1.305 billion (or 22.3 per cent) of the Municipality's GDP in 2015, making it the second largest sector in the Saldanha Bay region. The sector has experienced moderate growth of 1.25 per cent per annum on average over the period 2010 – 2015, and fared slightly better over the long term with growth averaging 1.49 per cent per annum since 2005. GDP growth in the manufacturing sector is consistently below the long term overall GDP trend for the region as the sector struggles to fully recover after the recession.

The manufacturing sector employed 10.65 per cent of the area's workforce (making it the 4th largest employer in Saldanha Bay). Employment growth has nevertheless remained constrained over the past decade with a contraction of 0.7 per cent recorded for the period 2005 – 2015. Approximately 778 jobs have been lost on net in Saldanha Bay's manufacturing industry since 2005.

A large number of workers employed in the manufacturing sector are classified as semi-skilled (39.6 per cent) and low-skilled (31.8 per cent). Semi-skilled employment within the manufacturing sector contracted over the last decade, whilst employment within the low-skilled sector contracted by 0.3 per cent per annum since 2005. Only 11.8 per cent of those employed in the manufacturing sector are categorised as skilled workers, and employment growth within this category has remained relatively stagnant since 2005. The informal sector makes up 16.8 per cent of the industry's workforce and experienced robust long term growth as employment grew by 7.2 per cent per annum over the period 2005 – 2015. Informal employment within the manufacturing industry furthermore experienced robust growth of 6.6 per cent per annum post-recession.

Construction - The construction sector comprised R 239.3 million (or 4.08 per cent) of the municipality's GDP in 2015. Construction has nevertheless been the fastest growing industry since 2005, with growth averaging 5.94 per cent per annum. GDP growth has nevertheless slowed since the recession and averaged 1.80 per cent over the period 2010 – 2015 as the sector struggles to fully recover after the recession.

The construction sector employed only 4.96 per cent of the area's workforce in 2015. Employment in the municipality's construction sector has grown by 2.4 per cent per annum since 2005. Approximately 209 jobs have been created on net since 2005, the majority of which were created over the period 2010 – 2015 (where employment growth averaged 1.2 per cent per annum).

The majority (42.4 per cent) of the workers employed in the construction industry operate within the informal sector. Employment growth within this sector has been consistently high since 2005. Low-skilled employment makes up 17.5 per cent and semi-skilled employment makes up 33.1 per cent of the workforce in the construction industry, and employment within both these sectors has contracted over the past decade (with employment contracting the fastest in the latter half of the decade). Workers employed in these sectors who have lost their jobs may have found employment in the informal sector. Skilled employment makes up only 7.1 per cent of the construction industry's workforce, and has grown at a moderate rate of 2.2 per cent per annum over the period 2005 – 2015 (with growth nevertheless stagnating in the post-recessionary period as employment in the sector struggles to recover).

Commercial Services - Commercial services encompass the wholesale & retail trade, catering & accommodation, transport, storage & communication and finance, insurance, real estate & business services industries. This sector comprised R2.404 billion (or 41.0 per cent) of the Municipality's GDP in 2015 (the largest sector in the region). The industry grew at a faster rate than the overall municipality over the period 2005 – 2015 (3.59 per cent compared to the municipal average of 2.95 per cent); growth tapered downward to 2.87 per cent per annum in the post-recessionary (which is above the municipal average over this period).

This sector employed 32.1 per cent of the areas workforce (making it the largest employer). Employment has shown consistent growth throughout the past decade recording a 3.4 per cent growth rate per annum on average. Employment growth dropped to 2.1 per cent per annum over the period 2010 – 2015 which is below the overall municipal employment growth in the post-recessionary period. On net, 4 027 jobs have been created within the commercial services industry in Saldanha Bay since 2005.

More than a third (35.2 per cent) of the industry's workforce is classified as semi-skilled, while 18.6 per cent is classified as low-skilled and 15.5 per cent is classified as skilled. Employment within the skilled and low-skilled sectors grew at moderate rates of 2.1 per cent and 2.4 per cent per annum since 2005, whilst the semi-skilled sector experienced relatively slower rates of 0.8 per cent over the period 2005 – 2015. Low-skilled employment growth tapered down to 2.0 per cent in the post-recessionary period, whilst skilled employment increased marginally to 1.9 per cent per annum over this period (2010 – 2015). Informal employment within the Commercial services industry makes up a significant portion (30.6 per cent) of the industries workforce and has experienced robust growth of 10.8 per cent per annum since 2005, and lower (but still strong) growth of 4.5 per cent per annum over the last 5 years. The informal sector is responsible for the majority of the new jobs created in the industry.

Government and Community, Social and Personal Services - The general government & community, social and personal services is moderately sized (comprising only 16.1 per cent or R943.63 million of the municipality's overall GDP in 2015). The industry experienced GDP growth of 3.61 per cent over the period 2005 – 2015 (and a marginally decreased rate of 3.21 per cent per annum since 2010) making it the third largest contributor to the overall municipal GDP figure within Saldanha Bay.

The industry similarly employs a noteworthy share (20.27 per cent) of the area's workforce and its employment growth over the period 2005 – 2015 averaged 3.4 per cent per annum. Employment growth has slowed since the recession (to 2.8 per cent per annum over the period 2010 - 2015). A large proportion (39.9 per cent) of the industry's formally employed workforce are classified as low-skilled, while 23.9 per cent fall within the semi-skilled and 24.9 per cent are classified as skilled. Employment in the skilled category grew at 3.0 per cent per annum over the period 2005 - 2015 overall, and has decelerated slightly since the recession (with growth averaging 2.5 per cent per annum over the period 2010 – 2015). Low-skilled employment grew at 2.8 per cent per annum since 2005, with growth tapering off at 2.2 per cent in the post-recessionary period. Semi-skilled employment similarly grew at a rate of 1.9 per cent per annum since 2005, with growth tapering off at 1.6 per cent per annum in the post-recessionary period. The informal sector employed only 11.2 per cent of the industries workforce, but grew at a rate of 17.6 per cent per annum over the period 2005 – 2015 (this growth nevertheless stemming from a small base).

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:	<p>A Notice of Intent to Develop (NID) was submitted to HWC, as the proposed development will change the character of a site "(i) exceeding 5 000m² in extent". HWC has provided comment on the submitted HWC NID which states as follows:</p> <p>"You are hereby notified that, since there is no reason to believe that the proposed development of 200 IRDP houses along with associated infrastructure, will not impact on heritage resources, no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required.</p> <p>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, all works must be stopped immediately and Heritage Western Cape must be notified without delay."</p> <p>The RoD has been included in Appendix E2 of the BAR.</p>			
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
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Note: If uncertain, the Department may request that specialist input be provided **and** Heritage Western Cape must provide comment on this aspect of the proposal. (Please note that a copy of the comments obtained from the Heritage Resources Authority must be appended to this report as Appendix E1).

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

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

LEGISLATION	ADMINISTERING AUTHORITY	TYPE Permit/ license/ authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval)	DATE (if already obtained):
National Environmental Management Act, 1998 (Act No. 107 of 1998) [NEMA] and relevant regulations	Western Cape Department of Environmental Affairs and Development Planning	Environmental Authorisation Application	N/A
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) [NEMWA] and relevant regulations	Western Cape Department of Environmental Affairs and Development Planning	N/A	N/A
National Environmental Management: Biodiversity Act 10 of 2004 [NEMBA]	Western Cape Department of Environmental Affairs and Development Planning	N/A	N/A
National Environmental Management: Air Quality Act, 39 of 2004 [NEMAQA] and Relevant Regulations	Western Cape Department of Environmental Affairs and Development Planning	N/A	N/A
National Water Act, 1998 (Act No. 36 of 1998) [NWA] and relevant regulations	Department of Water Affairs	N/A	N/A
Conservation of Agricultural Resources Act, 43 of 1983 [CARA]	National Department of Agriculture, forestry and Fisheries Western Cape Department of Agriculture	N/A	N/A
National Health Act, 61 of 2003 [NHA]		N/A	N/A
Constitution of the Republic of South Africa, 1996 [CRSA]		General application of individual rights of all on and adjacent to the site.	N/A
Fencing Act, 31 of 1963 [FA]		N/A	N/A
National Building Regulations and Building Standards Act 103 of 1977 [NBRBSA] and relevant regulations		N/A	N/A
National Heritage Resources Act 25 of 1999 [NHRA]	Heritage Western Cape South African Heritage Resource Agency	Notice of Intent to Develop	27/11/218
National Veld and Forest Fire Act 101 of 1998 [NVFFA]		N/A	N/A
Fertilizers, Farm Feeds, Agricultural Remedies And Stock Remedies Act, 36 Of 1947 [FFFARSRA] and Relevant Regulations	National Department of Agriculture, forestry and Fisheries Western Cape Department of Agriculture	N/A	N/A
Section 42 of Spatial Planning and Land Use Management Act (16 of 2013) ("SPLUMA")	Saldanha Bay Municipality	Rezoning application	N/A
Western Cape Land Use Planning Act, 2014 ("LUPA")	Saldanha Bay Municipality	Rezoning application	N/A

POLICY/ GUIDELINES/BY-LAWS	ADMINISTERING AUTHORITY
EADP 0028/2014 One Environmental Management System	Western Cape Department of Environmental Affairs and Development Planning

Guideline on Need and desirability	The Department of Environmental Affairs (first version published in terms of section 24J of the NEMA in 2014 and second version in 2017)
Guideline for Environmental Management Plans (EMP's)	Western Cape Department of Environmental Affairs and Development Planning
Guideline of Specialist Reports	Western Cape Department of Environmental Affairs and Development Planning
Western Cape Biodiversity Spatial Plan Handbook 2017	CapeNature Western Cape Department of Environmental Affairs and Development Planning

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

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	Describe how the proposed development complies with and responds to:
NEMA	Various general activities, including but not limited to, the control of emergency incidents and the care and remediation of environmental damage.
NEMWA	All waste management activities to be conducted during the development and operational phases of the project to adhere to the requirements of the act and its applicable regulations.
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. Development within the regulated area in terms of Section 21 c and i.
CARA	Weeds and the tolerance thereof.
National Health Act	Development and operation of a cemetery.
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.
Guideline on Public Participation	The public participation guideline is used to determine the requirements in terms of implementing the public participation process during the basic assessment process to be conducted. The guideline was also used to determine the most effective communication strategies for public participation.
Guidelines on Alternatives	The guidelines for alternatives assessment was used to develop a methodology for alternatives assessment. This methodology was applied to determine and assess the most viable alternatives to the project. The assessment was undertaken against the baseline environment (i.e. the no-go option).
Guideline on Need and desirability	The guideline was taken into account to determine whether the project complied according to the concept of Best Practicable Environmental Option as well as environmental and social sustainability.
Guideline for EMP's	The guideline for EMP's was taken into account to determine the most effective minimize, mitigation and management measures to minimise or prevent the potential environmental impacts identified during the basic assessment process

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	Describe how the proposed development complies with and responds to:
EADP 0028/2014 One Environmental Management System	The guideline was used to ensure that a holistic approach to the EIA process is followed.
Western Cape Biodiversity Spatial Plan Handbook 2017	The handbook and the guidelines used therein have been considered in determining the relative environmental/biodiversity impact as a result of the proposed activities associated with the proposal.

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.

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

In terms of Regulation 41 of the EIA Regulations, 2014 (as amended) -			
(a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of -			
(i) the site where the activity to which the application relates, is or is to be undertaken; and	YES	EXEMPTION	
(ii) any alternative site	YES	EXEMPTION	N/A
(b) giving written notice, in any manner provided for in Section 47D of the NEMA, to -			
(i) the occupiers of the site and, if the applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES	EXEMPTION	N/A
(ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES	EXEMPTION	
(iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;	YES	EXEMPTION	
(iv) the municipality (Local and District Municipality) which has jurisdiction in the area;	YES	EXEMPTION	
(v) any organ of state having jurisdiction in respect of any aspect of the activity; and	YES	EXEMPTION	
(vi) any other party as required by the Department;	YES	EXEMPTION	N/A
(c) placing an advertisement in -			
(i) one local newspaper; or	YES	EXEMPTION	
(ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;	YES	EXEMPTION	N/A
(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken	YES	EXEMPTION	N/A
(e) using reasonable alternative methods, as agreed to by the Department, in those instances where a person is desirous of but unable to participate in the process due to— (i) illiteracy; (ii) disability; or (iii) any other disadvantage.	YES	EXEMPTION	N/A
If you have indicated that "EXEMPTION" is applicable to any of the above, proof of the exemption decision must be appended to this report.			
Please note that for the NEM: WA and NEM: AQA, a notice must be placed in at least two newspapers circulating in the area where the activity applied for is proposed.			
If applicable, has/will an advertisement be placed in at least two newspapers?	YES	NO	
If "NO", then proof of the exemption decision must be appended to this report.			

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

State Department / Organ of State	Date request was sent:	Date comment received:	Support / not in support
Cape Nature	-	-	-
DEA&DP: Development Management (Competent Authority)	-	-	-
DEA&DP: Pollution and Chemicals Management	-	-	-
DEA&DP: Waste Management	-	-	-
Department of Agriculture, Western Cape (Provincial)	-	-	-
Department of Human Settlements	-	-	-
Department of Water and Sanitation	-	-	-
Heritage Western Cape	-	-	-
Saldanah Bay Local Municipality	-	-	-
West Coast District Municipality	-	-	-
Western Cape Department of Health	-	-	-

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

Await Comment.

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

Await Comment.

Note:

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

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

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

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

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

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

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

- a site map showing where the site notice was displayed, a dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:

- if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
- if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
- if a facsimile was sent, a copy of the facsimile report;
- if an electronic mail was sent, a copy of the electronic mail sent; and
- if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

SECTION D: NEED AND DESIRABILITY

Note: Before completing this section, first consult this Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department's website: <http://www.westerncape.gov.za/eadp>. In this regard, it must be noted that the *Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010* published by the national Department of Environmental Affairs on 20 October 2014 (GN No. 891 on Government Gazette No. 38108 refers) (available at: http://www.gov.za/sites/www.gov.za/files/38108__891.pdf) also applied to EIAs in terms of the EIA Regulations, 2014 (as amended).

1. Is the development permitted in terms of the property's existing land use rights?	YES	NO	Please explain
The property is located inside the designated urban edge and identified for residential development in the SDF, but a rezoning approval is needed.			
2. Will the development be in line with the following?			
(a) Provincial Spatial Development Framework ("PSDF").	YES	NO	Please explain
Residential development on an area included in the urban edge and SDF for residential development. The proposed development is consistent with the PSDF as the application area is vacant and underutilised land.			
(b) Urban edge / edge of built environment for the area.	YES	NO	Please explain
Residential development on an area inside of the urban edge.			
(c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g., would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF ?).	YES	NO	Please explain
The property is located inside the designated urban edge and identified for residential development in the SDF, but a rezoning approval is needed.			
(d) An Environmental Management Framework (" EMF ") adopted by this Department. (e.g., Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
No EMF adopted for the area.			
(e) Any other Plans (e.g., Integrated Waste Management Plan (for waste management activities), etc.).	YES	NO	Please explain
NA			
3. Is the land use (associated with the project being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (in other words, is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
The property is located inside the designated urban edge and identified for residential development in the SDF, but a rezoning approval is needed.			
4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur on the proposed site at this point in time?	YES	NO	Please explain
The property is located inside the designated urban edge and identified for residential development in the SDF, but a rezoning approval is needed.			
5. Does the community/area need the project and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g., development is a National Priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
The 2012 – 2017 IDP indicated that the demand for housing, especially affordable housing. The SBM's housing waiting list contained 7 501 people on 31 January 2013 of whom 2948 were seeking GAP housing. The waiting list for Vredenburg alone was 1 966 at 31 January 2013. The municipality have developed a Human settlements plan and consultations were conducted in the community on the various types of housing projects planned for the area and the revised plan will be communicated in due future. The housing development is therefore in line with the Human Settlements Plan which			

<p>is instrumented to complies with the policies of national legislation and policy frameworks concerned with housing and the Western Cape Human Settlement Plan. It is the municipality's aim to develop sustainable human settlements to improve the quality of household life by providing access to adequate accommodation that is suitable, relevant, appropriately located, affordable and fiscally sustainable. When analyzing the reasons people choose to live where they live, the top three priorities are; affordability, is it a safe neighborhood, and is there access to good schools. It is incumbent on us as municipalities to develop housing projects and use schools and other social and economic facilities as anchors for all neighborhood development plans – in that way the current site was highly ranked as a preferred site for the project.</p>			
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
<p>There is sufficient available services available for the proposed development. Please refer to services confirmation in Appendix E1 and the GLS report I Appendix K3.</p>			
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
<p>There is sufficient available services available for the proposed development. Please refer to services confirmation in Appendix E1 and the GLS report I Appendix K3.</p>			
8. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
<p>The 2012 – 2017 IDP indicated that the demand for housing, especially affordable housing. The SBM's housing waiting list contained 7 501 people on 31 January 2013 of whom 2948 were seeking GAP housing. The waiting list for Vredenburg alone was 1 966 at 31 January 2013. The housing development is therefore in line with the Human Settlements Plan which is instrumented to complies with the policies of national legislation and policy frameworks concerned with housing and the Western Cape Human Settlement Plan.</p>			
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
<p>The property is located inside the designated urban edge and identified for residential development in the SDF, but a rezoning approval is needed. The development will link to municipal services that have the capacity to service the development.</p>			
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
<p>See Section 6(e) above which describes the receiving environment in relation to the sensitive areas on and adjacent to the development site.</p>			
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
<p>The proposed development will provide new housing for the current community of Saldanha Bay residence on the housing waiting list and formal housing for people living in informal structures/ backyard dwellers. Temporary nuisances such as noise, vehicular movement, dust etc. will be produced during the construction phase. Thereafter, during the operational phase the impacts will be similar to that occurring in the existing residential areas adjacent to the site. The visual character of the land will change from degraded natural and agricultural land to residential, which will be mitigated by designing the proposed development as according to existing architectural and layout characteristics of Louwville to blend in with adjacent urban developed areas.</p>			
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
<p>Development cost will be for the government in terms of subsidised housing and Municipal Infrastructure development.</p>			
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?			
<p>The expansion of the town will result in cumulative impacts associated with residential development in the area, such as vehicle traffic and services. The necessary services and road infrastructure can however accommodate these impacts.</p>			
14. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain
<p>Although there is some degree of vegetation loss expected by the proposed development, due to the surrounding built up nature of the suburb of Louwville the proposed site is ideal for the purposes</p>			

proposed. It is not foreseen that the loss in vegetation would cause fragmentation of sever loss to biodiversity due to its location in the landscape.

15. What will the benefits be to society in general and to the local communities? Please explain

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

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

NA

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

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

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

NATIONAL ENVIRONMENTAL MANAGEMENT PRINCIPLES

2. Principles

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

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

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

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

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

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

(2) Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.

The proposed environmental management requirements have been determined by assessing all potential impacts that the development may have on people and their needs and aims to prevent or if prevention is not possible to mitigate any potential negative impacts on the environment and people.

(3) Development must be socially, environmentally and economically sustainable.

The proposed development has been planned, designed and assessed in such a manner as to ensure that it is socially, environmentally and economically sustainable.

(4)

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

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

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

altogether avoided, are minimised and remedied;

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

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

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

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

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

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

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

(b) Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.

An integrated environmental assessment approach was followed acknowledging that all elements of the environment are linked and interrelated and realising that effects of decisions may have cumulative impacts on the environment and people and that the best practicable environmental option must therefore be selected.

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

Environmental justice was pursued to prevent discrimination against any person, particularly vulnerable and disadvantaged persons.

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

Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being was pursued and special measures implemented if required ensure access.

(e) Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.

As per the recommended EMP requirements the Applicant (as per the EA stipulations) remains responsible for the environmental health and safety consequences of the proposed activity/ies throughout its life cycle.

(f) The participation of all interested and affected parties in environmental governance must be

promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.

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

(g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge.

All decision regarding the proposed activity/ies took into account the interests, needs and values of all potential interested and affected parties.

(h) Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.

Depending on the scope of the proposed activity community awareness campaigns will be conducted as and if required.

(i) The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.

All potential negative and positive impacts associated with the proposed development are assessed and mitigated during the assessment process.

(j) The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.

As per standard EMP requirements all relevant health and safety legislation must be adhered to during the implementation of the proposed activities.

(k) Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.

As per public participation process regulations all information relating to the proposed activities are public knowledge and available to the public for perusal and comments during the assessment process.

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

(m) Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures.

Comments from all relevant organs of state are requested, recorded and addressed during assessment process.

(n) Global and international responsibilities relating to the environment must be discharged in the national interest.

Applied as and when relevant to the proposed activities.

(o) The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage.

All potential impacts on environmental resources are assessed and mitigated to prevent unacceptable exploitation of renewable and non-renewable resources and associated ecosystems.

(p) The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.

As per standard EMP requirements the applicant, as per the EA issued, will remain financially responsible for remedying any negative environmental and health effects cause by or due to the proposed activities.

(q) The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.

If applicable the role of women and youth in environmental management and development related to the proposed activities will be assessed and incorporated into EMP requirements during the assessment process.

(r) Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.

All sensitive, vulnerable, highly dynamic or stressed ecosystems must be identified during the assessment process and the significance of any potential impacts on these systems must be determined and appropriate prevention, or if prevention is not possible mitigation measures must be incorporated into the EMP requirements.

SECTION E: DETAILS OF ALL THE ALTERNATIVES CONSIDERED

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

The EIA Regulations, 2014 (as amended) defines "alternatives" as "in relation to a proposed activity, means different means of fulfilling the general purpose and requirements of the activity, which may include alternatives to the—

- (a) property on which or location where the activity is proposed to be undertaken;
- (b) type of activity to be undertaken;
- (c) design or layout of the activity;
- (d) technology to be used in the activity; or
- (e) operational aspects of the activity;
- (f) and includes the option of not implementing the activity;"

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

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

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

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

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

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

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

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

The 2012 – 2017 IDP indicated that the demand for housing, especially affordable housing. The

SBM's housing waiting list contained 7 501 people on 31 January 2013 of whom 2948 were seeking GAP housing. The waiting list for Vredenburg alone was 1 966 at 31 January 2013. The municipality have developed a Human settlements plan and consultations were conducted in the community on the various types of housing projects planned for the area and the revised plan will be communicated in due future. The housing development is therefore in line with the Human Settlements Plan which is instrumented to complies with the policies of national legislation and policy frameworks concerned with housing and the Western Cape Human Settlement Plan. It is the municipality's aim to develop sustainable human settlements to improve the quality of household life by providing access to adequate accommodation that is suitable, relevant, appropriately located, affordable and fiscally sustainable. When analyzing the reasons people choose to live where they live, the top three priorities are; affordability, is it a safe neighborhood, and is there access to good schools. It is incumbent on us as municipalities to develop housing projects and use schools and other social and economic facilities as anchors for all neighborhood development plans – in that way the current site was highly ranked as a preferred site for the project. It is for the reasons above that no other property alternative has been considered in terms of this application.

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

No other activity alternatives were assessed as no feasible or reasonable activity exists. There is a need for residential and housing within the community of Saldanha Bay and no other alternative activities was assessed as they are not feasible or reasonable. Please see motivation regarding needs and desirability in section D – 5 above.

- (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:

The layout presented I this application has been informed by the Municipality, Specialists, engineers and Planners. The decision for this layout has gone through rigorous workshops by all stakeholders as mentioned above taking into account need and desirability, environmental and adjacent urban constraints in relation to the proposed development.

It is for this reason that the proposal presented in this application is the only reasonable and feasible layout alternative other than the no-go alternative.

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

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

Electricity:

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

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

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

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

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

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

N/A

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

Location alternatives – The 2012 – 2017 IDP indicated that the demand for housing, especially affordable housing. The SBM's housing waiting list contained 7 501 people on 31 January 2013 of whom 2948 were seeking GAP housing. The waiting list for Vredenburg alone was 1 966 at 31 January 2013. The municipality have developed a Human settlements plan and consultations were conducted in the community on the various types of housing projects planned for the area and the revised plan will be communicated in due future. The housing development is therefore in line with the Human Settlements Plan which is instrumented to complies with the policies of national legislation and policy frameworks concerned with housing and the Western Cape Human Settlement Plan. It is the municipality's aim to develop sustainable human settlements to improve the quality of household life by providing access to adequate accommodation that is suitable, relevant, appropriately located, affordable and fiscally sustainable. When analyzing the reasons people choose to live where they live, the top three priorities are; affordability, is it a safe neighborhood, and is there access to good schools. It is incumbent on us as municipalities to develop housing projects and use schools and other social and economic facilities as anchors for all neighborhood development plans – in that way the current site was highly ranked as a preferred site for the project.

It is for the reasons above that no other property alternative has been considered in terms of this application.

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

Please see motivation regarding needs and desirability in section D – 5 above.

Layout alternatives – The layout presented I this application has been informed by the Municipality, Specialists, engineers and Planners. The decision for this layout has gone through rigorous workshops by all stakeholders as mentioned above taking into account need and desirability, environmental and adjacent urban constraints in relation to the proposed development.

It is for this reason that the proposal presented in this application is the only reasonable and feasible layout alternative other than the no-go alternative.

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

Electricity:

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

Fluorescent lighting must be used in communal spaces where possible.

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

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

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

Refer to points (a) – (f) above.

2. PREFERRED ALTERNATIVE

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

Saldanha Bay Municipality proposes a housing development and associated infrastructure on erven 7752 and 1003 with a total development area of ±5.122 ha. The development proposes the following:

- ±154 residential erven (±120-160m²);
 - 3 open space erven (±1.1158ha);
 - Creche/church erf (±1989m²);
 - Road erf (±1.5539m²);
 - Internal Sewer main pipelines will be 160mm diameter uPVC Class 34, with a maximum capacity of 16 l/s; house connections will be 110mm diameter uPVC Pipes;
 - Internal Water main pipelines will be 160mm/110mm diameter uPVC Class 12, with a maximum capacity of 17 l/s; house connections will be 25/20mm HDPE pipes;
 - Internal Stormwater pipelines will be 375mm/450mm diameter concrete pipes, with a maximum capacity of 150 l/s;
 - Re-route 300mm diameter existing sewer main pipelines, with a maximum capacity of 100 l/s
- All proposed infrastructure will connect to existing Municipal infrastructure.

***See the site development plan located in Appendix B, please refer to details of services in GLS report located in Appendix K3**

SECTION F: ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE ALTERNATIVES

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

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

(a) Geographical, geological and physical aspects:

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

(b) Ecological aspects:

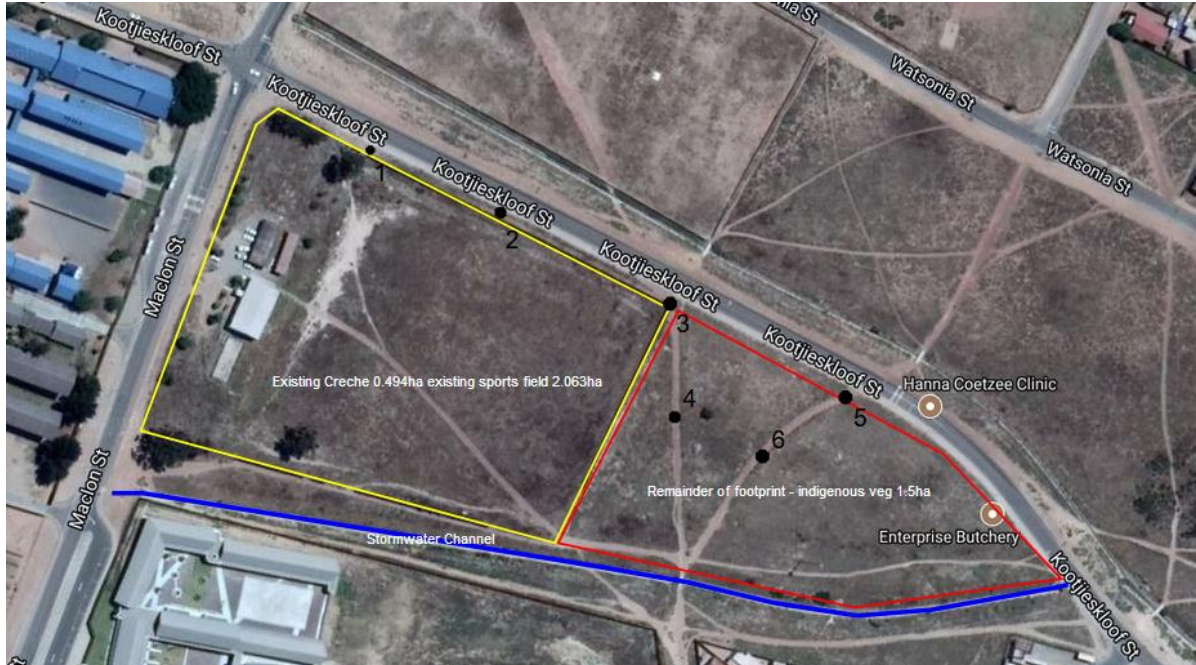
Will the proposed development and its alternatives have an impact on CBAs or ESAs? If yes, please explain: Also include a description of how the proposed development will influence the quantitative values (hectares/percentage) of the categories on the CBA/ESA map.	YES	NO
<p>Approximately 40% of the property is classified as a terrestrial CBA and terrestrial ESA (critically endangered or endangered veg).</p> <ul style="list-style-type: none"> • CBA: Terrestrial <ul style="list-style-type: none"> ➤ Definition Areas in a natural condition that is required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. ➤ Management Objective Maintain in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate. • ESA: Terrestrial <ul style="list-style-type: none"> ➤ Definition Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services. ➤ Management Objective Maintain in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised. 		

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
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The study area is classified as Saldanha Granite Strandveld vegetation. The vegetation is classified as Endangered by Mucina and Rutherford.

The eastern portion (most of erf 1003 which forms part of the development site) is indigenous vegetation consisting predominantly of *Oncosiphon suffruticosum* – commonly known as Stinkkruid as well as scattered aliens throughout the site. A concrete stormwater channel runs along the southern boundary of the development site.

Erf 7752 is the more disturbed portion of the development site. There is a church and creche located on the property which borders Maclon Street. The property has numerous established paths through the property which serves as thoroughfare for the residents adjacent to the property. A large portion of erf 7753 is used for recreational sports activities.



Map 1: Visual representation of the vantage points from where the photographs were taken from.



Photograph 1: Sports field taken from vantage point 1 looking in a south-easterly direction.



Photograph 2: View of the sports field taken from vantage point 2 looking in an easterly direction.



Photograph 3: Taken from vantage point 2 looking in a westerly direction. The back of the crèche can be seen on the right hand side and the church can be seen on the left hand side.



Photograph 4: Taken from vantage point 2 facing west.



Photograph 5: Taken from vantage point 3 facing east, showing the start of the section containing indigenous vegetation.



Photograph 6: Taken from vantage point 4 facing west.



Photograph 7: Taken from vantage point 4 facing east.



Photograph 8: Taken from vantage point 5 facing south.



Photograph 9: Taken from vantage point 6 facing east.



Photograph 10: Taken from vantage point 6 facing west.

Please refer to *Section A – 5.2* for pictures of the concrete stormwater channel running along the southern boundary of the proposed development site.

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
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NA		
Describe the manner in which any other biological aspects will be impacted:		
Removal of terrestrial vegetation identified as a CBA and EAS will impact on biological aspects within the development area.		
Will the proposed development also trigger section 63 of the NEM: ICMA?	YES	NO
<p>If yes, describe the following:</p> <p>(i) the extent to which the applicant has in the past complied with similar authorisations;</p> <p>(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;</p> <p>(iii) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area;</p> <p>(iv) the likely socio-economic impact if the listed activity is authorised or is not authorised;</p> <p>(v) the likely impact of coastal environmental processes on the proposed development;</p> <p>(vi) whether the development proposal or listed activity—</p> <p>(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;</p> <p>(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;</p> <p>(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;</p> <p>(d) is likely to cause irreversible or long-lasting adverse effects to any aspect of the coastal environment that cannot satisfactorily be mitigated;</p> <p>(e) is likely to be significantly damaged or prejudiced by dynamic coastal processes;</p> <p>(f) would substantially prejudice the achievement of any coastal management objective; or</p> <p>(g) would be contrary to the interests of the whole community;</p> <p>(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;</p> <p>(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</p> <p>(ix) the objects of NEM: ICMA, where applicable.</p>		
N/A		

(c) Social and Economic aspects:

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

(d) Heritage and Cultural aspects:

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

2. WASTE AND EMISSIONS

(a) Waste (including effluent) management

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

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

Will the development proposal require waste to be treated / disposed of on site?	YES	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?	Domestic Waste - ± 10 m ³ /month	
No treatment. Operational waste (hazardous and general) will be waste generated during the operations. All waste will link to Saldanha Bay Municipal Waste Management services and the waste will be transported by the municipality to their landfill site. Waste that cannot be reused must be disposed of at licensed waste management facilities. Refer to the EMP operational section for list of possible operational wastes to be generated and the management and disposal thereof.		
If no, where and how will the waste be treated / disposed of? Please explain. Indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?	N/A	
Has the municipality or relevant authority confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? If yes, provide written confirmation from the municipality or relevant authority.	YES	NO
Will the development proposal produce waste that will be treated and/or disposed of at another facility other than into a municipal waste stream?	No	
If yes, has this facility confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? Provide written confirmation from the facility.	YES	NO
Does the facility have an operating license? (If yes, please attach a copy of the licence.)	YES	NO
Facility name:		
Contact person:		
Cell:	Postal address:	
Telephone:	Postal code:	
Fax:	E-mail:	

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

(b) Emissions into the atmosphere

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

3. WATER USE

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

Municipal	Water board	Groundwater	River, Stream, Dam or Lake	Other	The project will not use water
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Note: Provide proof of assurance of water supply (e.g. Letter of confirmation from the municipality / water user associations, yield of borehole)

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

(d) Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:
The use of municipal water for construction and operation must as far as reasonably practicable is to be done in accordance with Circular C1 of 2018: Water Crisis Response Guidelines for the Western Cape.

4. POWER SUPPLY

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

Eskom via municipal grid.

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

N/A

5. ENERGY EFFICIENCY

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

Energy efficient street lighting, energy efficient lighting inside homes.

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

Solar power energy solution will be part of the development as far as reasonably practicable and feasible. Please take note that this is a Municipal project which would be subject to strict budget constraints and limitations.

6. TRANSPORT, TRAFFIC AND ACCESS

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

The proposed development will link on the northern boundary to Kootjieskloof Street.
A southern boundary access to link to the internal road network via Swavel Street is proposed for future potential development.

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

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

Noise

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

Odour

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

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

8. OTHER

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

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

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

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

The assessment criteria were developed based on the Department of Environmental Affairs' Integrated Environmental Management Series guideline documents.

Criteria	Description		
Nature	a description of what causes the effect, what will be affected, and how it will be affected.		
	Type	Score	Description
Extent (E)	None (No)	1	Footprint
	Site (S)	2	On site or within 100 m of the site
	Local (L)	3	Within a 20 km radius of the centre of the site
	Regional (R)	4	Beyond a 20 km radius of the site
	National (Na)	5	Crossing provincial boundaries or on a national / land wide scale
Duration (D)	Short term (S)	1	0 – 1 years
	Short to medium (S-M)	2	2 – 5 years
	Medium term (M)	3	5 – 15 years
	Long term (L)	4	> 15 years
	Permanent(P)	5	Will not cease
Magnitude (M)	Small (S)	0	will have no effect on the environment
	Minor (Mi)	2	will not result in an impact on processes
	Low (L)	4	will cause a slight impact on processes
	Moderate (Mo)	6	processes continuing but in a modified way
	High (H)	8	processes are altered to the extent that they temporarily cease
Probability (P) the likelihood of the impact actually occurring. Probability is estimated on a scale, and a score assigned	Very improbable (VP)	1	probably will not happen
	Improbable (I)	2	some possibility, but low likelihood
	Probable (P)	3	distinct possibility
	Highly probable (HP)	4	most likely
	Definite (D)	5	impact will occur regardless of any prevention measures
Significance (S)	Determined through a synthesis of the characteristics described above: S = (E+D+M) x P		
	Significance can be assessed as low, medium or high		
Low: < 30 points:	The impact would not have a direct influence on the decision to develop in the area		
Medium: 30 – 60 points:	The impact could influence the decision to develop in the area unless it is effectively mitigated		
High: > 60 points:	The impact must have an influence on the decision process to develop in the area		
No significance	When no impact will occur or the impact will not affect the environment		

Status	Positive (+)		Negative (-)
The degree to which the impact can be reversed	Completely reversible (R)	90-100%	The impact can be mostly to completely reversed with the implementation of the correct mitigation and rehabilitation measures.
	Partly reversible (PR)	6-89%	The impact can be partly reversed providing that mitigation measures as stipulated in the EMP are implemented and rehabilitation measures are undertaken
	Irreversible (IR)	0-5%	The impact cannot be reversed, regardless of the mitigation or rehabilitation measures taking place
The degree to which the impact may cause irreplaceable loss of resources	Resource will not be lost (R)	1	The resource will not be lost or destroyed provided that mitigation and rehabilitation measures as stipulated in the EMP are implemented
	Resource may be partly destroyed (PR)	2	Partial loss or destruction of the resources will occur even though all management and mitigation measures as stipulated in the EMP are implemented
	Resource cannot be replaced (IR)	3	The resource cannot be replaced no matter which management or mitigation measures are implemented.
The degree to which the impact can be mitigated	Completely mitigatable (CM)	1	The impact can be completely mitigated providing that all management and mitigation measures as stipulated in the EMP are implemented
	Partly mitigatable (PM)	2	The impact cannot be completely mitigated even though all management and mitigation measures as stipulated in the EMP are implemented. Implementation of these measures will provide a measure of mitigatability
	Un-mitigatable (UM)	3	The impact cannot be mitigated no matter which management or mitigation measures are implemented.

(b) Please describe any gaps in knowledge.

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

(c) Please describe the underlying assumptions.

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

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

(d) Please describe the uncertainties.

None at this stage.

(e) Describe adequacy of the assessment methods used.

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

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

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

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

Alternative 1:	<p><u>Construction phase:</u></p> <ul style="list-style-type: none"> • Disturbance to subsurface geological layers (Low impact before mitigation and low impact with mitigation measures); • Soil erosion and dust - (Low impact before mitigation and low impact with mitigation measures);
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	<ul style="list-style-type: none"> • Diesel and oil spills affecting ground and surface water - (Medium impact before mitigation and low impact with mitigation measures); • Impact of noise on surrounding environment - (Low impact before mitigation and low impact with mitigation measures); • Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (High impact before mitigation and high impact with mitigation measures); • Jobs - (Medium impact (POSITIVE) before mitigation and medium impact (POSITIVE) with mitigation measures); • Traffic - (Medium impact before mitigation and low impact with mitigation measures); • Property value and unforeseen opportunity costs - (Low impact before mitigation and low with mitigation measures); • Crime and security - (Medium impact before mitigation and low impact with mitigation measures); • Heritage management - (Low impact before mitigation and low impact with mitigation measures). <p><u>Operational phase:</u></p> <ul style="list-style-type: none"> • Impact of noise on surrounding environment - (High impact before mitigation and medium impact with mitigation measures); • Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (Low impact before mitigation and low impact with mitigation measures); • Traffic - (Medium impact before mitigation and medium impact with mitigation measures); • Property value and unforeseen opportunity costs - (Low impact before mitigation and low impact with mitigation measures); • Crime and security - (Medium impact before mitigation and low impact with mitigation measures); • Increased demand on services - (Medium impact before mitigation and low impact with mitigation measures). <p><u>Decommissioning phase:</u></p> <ul style="list-style-type: none"> • Similar to impacts associated with construction phase.
No-go Alternative:	The No-Go option will result in the site remaining as is at present.

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

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

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

Refer to Appendix J for the assessment of impacts related to the proposed development and related activities.

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

The property and layout were the only alternative considered against the no-go alternative based on the motivation provided as per Section E.

(d) Outcome of the site selection matrix.

Construction phase:

- Disturbance to subsurface geological layers **(Low impact before mitigation and low impact with mitigation measures)**;
- Soil erosion and dust - **(Low impact before mitigation and low impact with mitigation measures)**;
- Diesel and oil spills affecting ground and surface water - **(Medium impact before mitigation and low impact with mitigation measures)**;

- Impact of noise on surrounding environment - **(Low impact before mitigation and low impact with mitigation measures)**;
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(High impact before mitigation and high impact with mitigation measures)**;
- Jobs - **(Medium impact (POSITIVE) before mitigation and medium impact (POSITIVE) with mitigation measures)**;
- Traffic - **(Medium impact before mitigation and low impact with mitigation measures)**;
- Property value and unforeseen opportunity costs - **(Low impact before mitigation and low with mitigation measures)**;
- Crime and security - **(Medium impact before mitigation and low impact with mitigation measures)**;
- Heritage management - **(Low impact before mitigation and low impact with mitigation measures)**.

Operational phase:

- Impact of noise on surrounding environment - **(High impact before mitigation and medium impact with mitigation measures)**;
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(Low impact before mitigation and low impact with mitigation measures)**;
- Traffic - **(Medium impact before mitigation and medium impact with mitigation measures)**;
- Property value and unforeseen opportunity costs - **(Low impact before mitigation and low impact with mitigation measures)**;
- Crime and security - **(Medium impact before mitigation and low impact with mitigation measures)**;
- Increased demand on services - **(Medium impact before mitigation and low impact with mitigation measures)**.

Decommissioning phase:

Similar to impacts associated with construction phase.

3. SPECIALIST INPUTS/STUDIES, FINDINGS AND RECOMMENDATIONS

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

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

None commissioned yet.

4. ENVIRONMENTAL IMPACT STATEMENT

Provide an environmental impact statement of the following:

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

Construction phase:

- Disturbance to subsurface geological layers **(Low impact before mitigation and low impact with mitigation measures)**;
- Soil erosion and dust - **(Low impact before mitigation and low impact with mitigation measures)**;
- Diesel and oil spills affecting ground and surface water - **(Medium impact before mitigation and low impact with mitigation measures)**;
- Impact of noise on surrounding environment - **(Low impact before mitigation and low impact with mitigation measures)**;
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(High impact before mitigation and high impact with mitigation measures)**;

- Jobs - **(Medium impact (POSITIVE) before mitigation and medium impact (POSITIVE) with mitigation measures);**
- Traffic - **(Medium impact before mitigation and low impact with mitigation measures);**
- Property value and unforeseen opportunity costs - **(Low impact before mitigation and low with mitigation measures);**
- Crime and security - **(Medium impact before mitigation and low impact with mitigation measures);**
- Heritage management - **(Low impact before mitigation and low impact with mitigation measures).**

Operational phase:

- Impact of noise on surrounding environment - **(High impact before mitigation and medium impact with mitigation measures);**
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(Low impact before mitigation and low impact with mitigation measures);**
- Traffic - **(Medium impact before mitigation and medium impact with mitigation measures);**
- Property value and unforeseen opportunity costs - **(Low impact before mitigation and low impact with mitigation measures);**
- Crime and security - **(Medium impact before mitigation and low impact with mitigation measures);**
- Increased demand on services - **(Medium impact before mitigation and low impact with mitigation measures).**

Decommissioning phase:

Similar to impacts associated with construction phase.

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

5. IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES

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

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

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

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

None.

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

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

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

Not applicable.

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

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

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

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

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

SECTION H: RECOMMENDATIONS OF THE EAP AND SPECIALISTS

(a) In my view as the appointed EAP, the information contained in this BAR and the documentation attached hereto is sufficient to make a decision in respect of the listed activity(ies) applied for.	YES	NO
(b) If the documentation attached hereto is sufficient to make a decision, please indicate below whether, in your opinion, the listed activity(ies) should or should not be authorised:		
Listed activity(ies) should be authorised:	YES	NO
Provide reasons for your opinion		
All possible impacts 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.		
<p><i>Construction phase:</i></p> <ul style="list-style-type: none"> • Construction activities must be controlled and restricted to the development footprint only. • The construction area and all proposed no-go areas must be demarcated before construction starts and remain demarcated throughout construction phase. • The construction activities must be monitored by an Environmental Control Officer. • All disturbed areas should receive ongoing monitoring and management of erosion and invasive plant growth. • Construction work must be carried out in the low rainfall season (mid to late summer) and completed in that low rainfall season to minimise the impact on non-perennial rivers. • Access to roads and other areas must be controlled to avoid disturbance of areas outside the development footprint. Personnel should be restricted to the immediate construction areas only. • Monitor construction areas frequently for signs of erosion and if signs of erosion are detected implement repair and preventative measures immediately. • Care should be taken that any soil used for construction purposes that is brought onto the site does not contain the seeds of alien invasive plants. • Ablution facilities should be available for construction workers, should be located outside buffer zones and no-go areas and should be regularly serviced. • Proper on-site management for the storage and use of materials waste and pesticides/weed killers to prevent any potential pollution of the stormwater channel should be addressed in the Environmental Management Plan for the project. 		

Operational phase:

- All no-go areas must remain demarcated throughout the operational phase. Demarcation must be by means of basic fence i.e. standard wooden droppers with 1 to 2 wire strands.
- Should any disturbance i.e. erosion occur within the no-go areas / buffer areas the affected areas should immediately be rehabilitated, and prevention measures must be put in place to ensure that the disturbance does not happen again.
- All alien invasive plant species must be removed and managed on an ongoing basis from the no-go areas. Removal of alien invasive plant species must take place according to CapeNature approved methods, having the least negative impact on the environment.
- Only use one existing access road to the sites for operational purposes and avoid disturbance of "new" areas outside the existing access road and infrastructure footprint.
- Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.
- Ablution facilities should be available for operational workers, should be located outside the buffer areas and should be regularly serviced.
- Proper on-site management for the storage and use of materials waste and pesticides/weed killers to prevent any potential pollution of the stormwater channel should be addressed in the Environmental Management Plan for the project.

These measures should be addressed, implemented and monitored in terms of the EMPr for the construction and operational phases.

(d) If you are of the opinion that the activity should be authorised, please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an environmental authorisation.

Recommended that the EA prescribe that:

- Should any heritage artefacts be exposed during construction that all activities be stopped, and Heritage Western Cape contacted before any further action being permitted.
- The project implementation process should be subject to standard Environmental Management Programme prescripts and conditions under supervision of a competent and diligent ECO, during its construction and decommissioning phases.
- Independent auditing, monitoring and verification by a competent external environmental auditor during operations must be conducted at regular intervals to ensure compliance with the approved EA, EMPr.

(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 years
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 years
iii.	the period for which the portion of the environmental authorisation that deals with non-operational aspects is granted; and	10 years
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	YES
Appendix B:	Site development plan(s)	YES
	A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;	YES
Appendix C:	Photographs	YES
Appendix D:	Biodiversity overlay map	YES
Appendix E:	Permit(s) / license(s) from any other Organ of State, including service letters from the municipality.	YES
	Appendix E1: Services Confirmation	YES
	Appendix E2: Copy of comment from HWC	YES
Appendix F:	Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required in Section C above.	YES
Appendix G:	Specialist Report(s)	NA
Appendix H:	Appendix H1: EMPr	YES
Appendix I:	Additional information related to listed waste management activities (if applicable)	NA
Appendix J:	If applicable, description of the impact assessment process followed to reach the proposed preferred alternative within the site.	YES
Appendix K:	Any Other (if applicable). Appendix K1: EAP CV Appendix K2: Floodline Investigation Appendix K3: GLS Report	YES

SECTION J: DECLARATIONS

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