

**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 EXPANSION OF THE EXISTING LAINGVILLE CEMETERY ON ERF RE/80, LAINGVILLE

19 October 2018

| REPORT TYPE CATEGORY | REPORT REFERENCE NUMBER | DATE OF REPORT |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------|
| Pre-Application Basic Assessment Report (if applicable) ¹ | 3231/18/PA | 19 October 2018 |
| Draft Basic Assessment Report ² | | |
| Final Basic Assessment Report ³ or, if applicable Revised Basic Assessment Report ⁴ (strikethrough what is not applicable) | | |

Notes:

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

DEPARTMENTAL REFERENCE NUMBER(S)

| | |
|--------------------------------------|---------------------------|
| Pre-application reference number: | 16/3/3/6/7/1/F4/8/3231/18 |
| 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:

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- This Report must be submitted to the Department and the contact details for doing so are provided below.
- Where this Department is also identified as the Licencing Authority to decide applications under NEM:WA or NEM:AQA, the submission of the Report must also be made as follows, for-
 - Waste management licence applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (tel: 021-483-2756 and fax: 021-483-4425) at the same postal address as the Cape Town Office.
 - Atmospheric emissions licence applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (tel: 021 483 2798 and fax: 021 483 3254) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS

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

TABLE OF CONTENTS:

| Section | Page(s) |
|------------------------------------------------------------------------------------------------|---------|
| Section A: Project Information | 9 - 15 |
| Section B: Description of the Receiving Environment | 15 - 33 |
| Section C: Public Participation | 33 - 35 |
| Section D: Need and Desirability | 35 - 38 |
| Section E: Details of all the Alternatives considered | 38 - 40 |
| Section F: Environmental Aspects Associated with the Alternatives | 40 - 45 |
| Section G: Impact Assessment, Impact Avoidance, Management, Mitigation and Monitoring Measures | 46 - 51 |
| Section H: Recommendations of the EAP | 51 - 52 |
| Section I: Appendices | 53 |
| Section J: Declarations | 53 |

ACRONYMS USED IN THIS BASIC ASSESSMENT REPORT AND APPENDICES:

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

DETAILS OF THE APPLICANT

| | | | |
|--------------------------------------------|-----------------------------|--------------|--------------|
| Applicant / Organisation / Organ of State: | 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 Cand.Sci.Nat (Biological Science) 100126/12 | | |
| Contact Person (if not author): | - | | |
| Postal address: | PO Box 45070, Claremont | | |
| Telephone: | 021 671 1660 | Postal Code: | 7735 |
| Cellular: | 066 210 9892 | Fax: | 021 671 9976 |
| 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 BASIC ASSESSMENT REPORT:

Introduction:

The proposal is for the expansion of the existing Laingville Cemetery and associated infrastructure by approximately 6.6 ha on a portion of erf RE/80 located west of the existing cemetery. The expansion is proposed to extend on the western boundary of the existing cemetery, located off Duiker Street Laingville. Note that a watercourse traverses the site and development is proposed outside of the 32m buffer placed around the watercourse.

The proposed development would entail the clearing of indigenous vegetation on the proposed development area for the expansion of the existing cemetery. Please note that a 32m buffer around the existing watercourse traversing the site must be implemented to ensure that the watercourse is not adversely impacted upon by the proposed cemetery expansion.

The cemetery expansion is proposed on the western boundary of the existing cemetery and will extend beyond the watercourse that traverses the site up to the existing sports grounds located on the same erf.

According to the Western cape Biodiversity Spatial Plan (2017) the portion identified for expansion is mapped as a Terrestrial Ecological Support Area (ESA1). A portion of the area included as part of the development proposal is categorised as Terrestrial Critical Biodiversity Area (CBA1 and 2). The

footpaths located on the development area is categorised as Terrestrial Ecological Support Area (ESA2). The site comprises of indigenous vegetation which shows some evidence of degradation. Low densities of alien species occur within the proposed development area. A number of footpaths have been established through the site and some areas are covered in litter as a result of human impact and adjacent residential activities.



Photograph 1: the red line indicates the extent of the development footprint. The blue line indicates the watercourse traversing the development site. The watercourse and the 32m buffer around the watercourse are **EXCLUDED** from the development site. Footpaths and litter can be seen strewn throughout the area located adjacent to the existing cemetery and residential erven off Duiker street.



Photograph 2: The development site facing north towards the houses at off Duiker Street. The blue line indicates the watercourse traversing the site (excluded from the development footprint). Litter and footpaths through the development area showing the degradation of the site and vegetation located therein.

Watercourse EXCLUDED from development footprint:

The watercourse that traverses the site as well as the 32m buffer around the watercourse is **excluded** from the development proposal is categorised as a Terrestrial Critical Biodiversity Area (CBA).

Preferred Alternative:

The proposal is for the **EXPANSION** of an existing cemetery.

No other reasonably practicable or feasible options exist in order to ensure that the community of Laingville has sufficient burial capacity than to expand its existing cemeteries. No other favourable or feasible location alternative exists.

Key Findings of EIA:

The assessment of these impacts before and after recommended mitigation is summarised in the table below. After mitigation, none of the impacts are assessed as being above LOW significance.

Construction Phase:

- Compaction of soil - (medium impact before and after mitigation);
- Increase in stormwater run-off - (low impact before and after mitigation);
- Loss of indigenous vegetation - (medium impact before and after mitigation);
- Traffic Impacts - (low impact before and after mitigation);
- Noise Impacts - (low impact before and after mitigation);
- Cultural-Historical Impacts - (low impact before and after mitigation);
- Visual Impacts - (low impact before and after mitigation);
- Potential job creation;

- Impact of proposed development activities on surface- and groundwater resources.

Operational Phase:

- Groundwater resources - (high impact before mitigation and low impact with mitigation measures);
- Soil contamination - (high impact before mitigation and low impact with mitigation measures);
- Compaction of soil - (medium impact before and after mitigation);
- Increase in stormwater run-off (low impact before and after mitigation);
- Traffic Impacts - (low impact before and after mitigation);
- Noise Impacts - (low impact before and after mitigation);
- Cultural-Historical Impacts - (low impact before and after mitigation);
- Visual Impacts - (low impact before and after mitigation);
- Social Impacts - provision of burial space for the community;
- Impact of proposed development activities on surface- and groundwater resources.

Decommissioning Phase:

Similar to impacts associated with construction phase.

Conclusion:

The proposed cemetery expansion area is located adjacent to the existing cemetery in an area with similar topography to that of the existing cemetery. The site is municipal owned vacant land.

The section identified for the expansion of the cemetery (area immediately south of the existing cemetery) is classified as a Terrestrial and Aquatic CBA and ESA. The vegetation on site is disturbed and degraded and can be described having a low ecological value.

The expansion creates much needed burial space as the current cemetery is fast reaching capacity. Due to the important role that cemeteries play in a community, it is imperative that cemeteries should be located within an acceptable distance to the community it serves which is the case with the proposed expansion.

SECTION A: PROJECT INFORMATION

1. ACTIVITY LOCATION

| | |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Location of all proposed sites: | The cemetery expansion is proposed on a portion of Erf RE/80. The expansion is proposed to extend on the western boundary of the existing Laingville Cemetery, located off Duiker Street Laingville. Note that a watercourse traverses the site and development is proposed outside of the 32m buffer placed around the watercourse. |
| Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site: | Remainder of Erf 80. |
| Property size(s) in m ² for each proposed site: | Approximately 157 994.7 m ² (15.79947 ha) |
| Development footprint size(s) in m ² : | Approximately 66 000 m ² (6.6 ha) |
| Surveyor General (SG) 21 digit code for each proposed site: | C04600130000008000000 |

2. PROJECT DESCRIPTION

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

YES

NO

The proposal is for the expansion of the existing Laingville Cemetery and associated infrastructure by approximately 6.6 ha on a portion of erf RE/80 located west of the existing cemetery. The expansion is proposed to extend on the western boundary of the existing cemetery, located off Duiker Street Laingville. Note that a watercourse traverses the site and development is proposed outside of the 32m buffer placed around the watercourse.

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

The proposal is for the expansion of the existing Laingville Cemetery and associated infrastructure by approximately 6.6 ha on a portion of erf RE/80 located west of the existing cemetery. The expansion is proposed to extend on the western boundary of the existing cemetery, located off Duiker Street Laingville. Note that a watercourse traverses the site and development is proposed outside of the 32m buffer placed around the watercourse.

The proposed development would entail the clearing of indigenous vegetation on the proposed development area for the expansion of the existing cemetery. Please note that a 32m buffer around the existing watercourse traversing the site must be implemented to ensure that the watercourse is not adversely impacted upon by the proposed cemetery expansion.

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

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

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

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

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

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

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

| Listed Activity No(s): | Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 1 (GN No. R. 983) | Describe the portion of the development that relates to the applicable listed activity as per the project description. | Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational. |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 27 | The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation. | The clearance of approximately 6.6 ha of indigenous vegetation. | Development. |
| 44 | The expansion of cemeteries by 2 500 square metres or more. | The expansion of an existing cemetery and associated infrastructure by 6.6 ha. | Development. |
| Listed Activity No(s): | Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 3 (GN No. R. 985) | Describe the portion of the development that relates to the applicable listed activity as per the project description. | Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational. |
| 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; | The clearance of 0.9 ha of vegetation categorised as CBA in terms of the WCBSP 2017. | Development. |

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

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

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

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 |
|-----------------------------------------------|-----|----|
| | | |

| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| NA | | |
| Infrastructure (e.g., roads, power and water supply/ storage) Provide brief description below: | YES | NO |
| NA | | |
| 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 |
| The application is for the expansion of the existing Cemetery located in Laingville off Duiker Street. The activity will comprise of the clearing of approximately 6.6 ha of indigenous vegetation for the expansion of the cemetery and associated infrastructure. A 32m buffer is to be implemented around the watercourse which traverses the site to mitigate negative impacts associated with the cemetery expansion. | | |

3. PHYSICAL SIZE OF THE PROPOSED DEVELOPMENT

| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------|
| (a) Property size(s): Indicate the size of all the properties (cadastral units) on which the development proposal is to be undertaken | 157 994.7 | m ² |
| (b) Size of the facility: Indicate the size of the facility where the development proposal is to be undertaken | 101 000 | m ² |
| (c) Development footprint: Indicate the area that will be physically altered as a result of undertaking any development proposal (i.e., the physical size of the development together with all its associated structures and infrastructure) | 66 000 | m ² |
| (d) Size of the activity: Indicate the physical size (footprint) of the development proposal | 66 000 | m ² |
| (e) For linear development proposals: Indicate the length (L) and width (W) of the development proposal | (L) | m |
| | (W) | m |
| (f) For storage facilities: Indicate the volume of the storage facility | 0 | m ³ |
| (g) For sewage/effluent treatment facilities: Indicate the volume of the facility (Note: the maximum design capacity must be indicated) | 0 | 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? | 0m | |

(c) Describe the type of access road planned:

| |
|----|
| NA |
|----|

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 cemetery expansion is proposed on the western boundary of the existing cemetery and will extend beyond the watercourse that traverses the site up to the existing sports grounds located on the same erf.

According to the Western cape Biodiversity Spatial Plan (2017) the portion identified for expansion is mapped as a Terrestrial Ecological Support Area (ESA1). A portion of the area included as part of the development proposal is categorised as Terrestrial Critical Biodiversity Area (CBA1 and 2). The footpaths located on the development area is categorised as Terrestrial Ecological Support Area (ESA2). The site comprises of indigenous vegetation which shows some evidence of degradation. Low densities of alien species occur within the proposed development area. A number of footpaths have been established through the site and some areas are covered in litter as a result of human impact and adjacent residential activities.



Photograph 1: the red line indicates the extent of the development footprint. The blue line indicates the watercourse traversing the development site. The watercourse and the 32m buffer around the watercourse are **EXCLUDED** from the development site. Footpaths and litter can be seen strewn throughout the area located adjacent to the existing cemetery and residential erven off Duiker street.



Photograph 2: The development site facing north towards the houses at off Duiker Street. The blue line indicates the watercourse traversing the site (excluded from the development footprint). Litter and footpaths through the development area showing the degradation of the site and vegetation located therein.

Watercourse EXCLUDED from development footprint:

The watercourse that traverses the site as well as the 32m buffer around the watercourse is **excluded** from the development proposal is categorised as a Terrestrial Critical Biodiversity Area (CBA).

| | Latitude (S): (deg.; min.; sec) | | | Longitude (E): (deg.; min.; sec.) | | |
|--|-----------------------------------------------------------------------------------|-----|-----|-----------------------------------|-----|----|
| | Coordinates of all the proposed activities on the property or properties (sites): | 32° | 47' | 37.13" | 18° | 3' |
| | ° | ' | " | ° | ' | " |
| | ° | ' | " | ° | ' | " |
| | ° | ' | " | ° | ' | " |

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

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

NA

| | Latitude (S): (deg.; min.; sec) | | | Longitude (E): (deg.; min.; sec) | | |
|--|-------------------------------------------------------------------------------------------------------------------|---|---|----------------------------------|---|---|
| | Coordinates of the boundary /perimeter of all proposed aquatic or ocean-based activities (sites) (if applicable): | ° | ' | " | ° | ' |
| | ° | ' | " | ° | ' | " |
| | ° | ' | " | ° | ' | " |
| | ° | ' | " | ° | ' | " |

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).

| For linear activities: | Latitude (S): (deg.; min.; sec) | | | Longitude (E): (deg.; min.; sec) | | |
|----------------------------------|---------------------------------|---|---|----------------------------------|---|---|
| • Starting point of the activity | ° | ' | " | ° | ' | " |
| • Middle point of the activity | ° | ' | " | ° | ' | " |
| • End point of the activity | ° | ' | " | ° | ' | " |

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

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

| | |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Locality Map: | <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> |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| | |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Plan: | <p>Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:</p> <ul style="list-style-type: none"> • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be indicated on the site plan. • The position of each element of the application as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development <u>must</u> be indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): <ul style="list-style-type: none"> ○ Watercourses / Rivers / Wetlands - including the 32 meter set back line from the edge of the bank of a river/stream/wetland; ○ Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable); ○ Ridges; ○ Cultural and historical features; ○ Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow <p>A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.</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 |
|------|-------------------|----------|------------------|

2. LOCATION IN LANDSCAPE

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

| | | | | | | | | |
|-----------|---------|----------------------------------|------------------|----------------|-------|-------------------------------|------|-----------|
| Ridgeline | Plateau | Side-slope-of hill / mountain | Closed valley | Open valley | Plain | Undulating plain/low hills | Dune | Sea-front |
|-----------|---------|----------------------------------|------------------|----------------|-------|-------------------------------|------|-----------|

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

The proposed cemetery expansion site is located on a flat sand plain area on the western boundary of the existing cemetery located off Duiker Street Laingville. The site is located within an area with a slope classification of between 0 - 3 % and 3 - 10 %.

A topography map has been included below:



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 | Dolerite | Other (describe) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------|-----------|----------|----------|------------------|
| Provide a description. | | | | | | |
| The development site is located in an area with a land type categorised as Db299 which is described as B horizons 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. | | | | | | |
| Soil: | | | | | | |
| Prismacutanic and/or pedocutanic diagnostic horizons dominant, B horizons mainly not red. | | | | | | |
| *Source: ENPAT. Soils and Geology. Soil Descriptions for the Western Cape [https://gis.elsenburg.com/apps/cfm/#] | | | | | | |
| The soil is classified as having high erodibility with an erodibility factor of 0.67. | | | | | | |
| *Source: SA Atlas of Climatology and Agrohydrology (R.E. Schulze, 2009). Soil Erodibility. [https://gis.elsenburg.com/apps/cfm/#] | | | | | | |
| The soil clay and depth is categorised by the symbol CA, these types of soils are classified as soils with strong texture contrast and are described as 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. These soils have a depth of >=750 mm and a clay content of <15%. | | | | | | |
| *Source: Department of Agriculture, Forestry and Fisheries. Soil Clay & Depth [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 water course traverses the site from south to north. The water course is not pristine and a gravel weir blocks the water flow and the wetland is described as a Western Strandveld Channelled Valley Bottom Wetland.

The water course and a 32m buffer around the watercourse are **EXCLUDED** from the development footprint and must not be impacted on:



5. THE SEAFRONT / SEA

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

| AREA | YES | NO | UNSURE | If "YES": Distance to nearest area (m) |
|-----------------------------------------------------------------|-----|----|--------|----------------------------------------|
| An area within 100m of the high water mark of the sea | YES | NO | UNSURE | |
| An area within 100m of the high water mark of an estuary/lagoon | YES | NO | UNSURE | |
| An area within the littoral active zone | YES | NO | UNSURE | |
| An area in the coastal public property | YES | NO | UNSURE | |
| Major anthropogenic structures | YES | NO | UNSURE | |
| An area within a Coastal Protection Zone | YES | NO | UNSURE | |

| | | | | |
|--------------------------------------------------------|-----|----|--------|--|
| An area seaward of the coastal management line | YES | NO | UNSURE | |
| An area within the high risk zone (20 years) | YES | NO | UNSURE | |
| An area within the medium risk zone (50 years) | YES | NO | UNSURE | |
| An area within the low risk zone (100 years) | YES | NO | UNSURE | |
| An area below the 5m contour | YES | NO | UNSURE | |
| An area within 1km from the high water mark of the sea | YES | NO | UNSURE | |
| A rocky beach | YES | NO | UNSURE | |
| A sandy beach | YES | NO | UNSURE | |

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

6. BIODIVERSITY

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

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

| Systematic Biodiversity Planning Category | CBA | ESA | Other Natural Area ("ONA") | No Natural Area Remaining ("NNR") |
|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------|-----------------------------------|
| If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan and the conservation management objectives | <p>The biodiversity areas as mapped for the application area are indicated in the biodiversity overlay map included as Appendix D. According to the 2017 Western Cape Biodiversity Spatial Plan the site is mapped as follows:</p> <ol style="list-style-type: none"> West of the water course the site is mapped as ESA 1: Terrestrial. East of the watercourse the site is mapped as CBA 1 and 2: Terrestrial and aquatic and ESA 2: Terrestrial <p><u>Critical Biodiversity Areas:</u> Areas in a natural condition that is required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.</p> <p>The desired management objective for CBA1 is to 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.</p> <p>The desired management objective CBA2 is to maintain a functional, natural or near-natural state, with no further loss of natural habitat. These areas should be rehabilitated.</p> <p><u>Ecological Support Areas:</u> ESAs are not essential for meeting biodiversity targets but play an important role in supporting the ecological functioning of CBAs, and deliver important ecosystem services.</p> <p>ESAs facilitate landscape connectivity, promote resilience to climate change, and buffer elements of the landscape including protected areas and sites that are important for the</p> | | | |

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>survival of individual species.</p> <p>The desired management objective of an ESA1 is to maintain a functional near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised.</p> <p>The desired management objective of ESA2 is to restore and/or manage to minimize impact on ecological processes and ecological infrastructure functioning, especially soil and water-related services, and to allow for faunal movement.</p> |
| <p>Describe the site's CBA/ESA quantitative values (hectares/percentage) in relation to the prevailing level of protection of CBA and ESA (how many hectares / what percentages are formally protected locally and in the province)</p> | <p>According to the Land Use Advice (LUA) Handbook (Pool-Stanvliet <i>et al.</i> 2017) the Western Cape Province is approximately 12.9 million ha. 22% of this area has been identified as CBA (2.9 million ha), 14 % is formally protected, 19% has no natural cover remaining, 32% has been identified as Other Natural Area and the remaining 13% of the province falls into the ESA category.</p> <p>Therefore the extent of ESAs in the Western Cape equates to 1644503 ha (13%).</p> <p><u>In terms of this proposal:</u> The portion of the development categorised as ESA equates to approximately 3.8 ha.</p> <p>The total loss of ESA within the Western Cape in respect of this application amount to: $(3.8 \text{ ha}/1644503\text{ha}) \times 100 = \mathbf{0.00023\%}$</p> <p>The portion of the development categorised as CBA equates to approximately 2.8 ha.</p> <p>The total loss of CBA within the Western Cape in respect of this application amount to: $(2.8 \text{ ha}/2859785\text{ha}) \times 100 = \mathbf{0.00009\%}$</p> |

(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% | m ² | |
| Near Natural (includes areas with low to moderate level of alien invasive plants) | 40% | m ² | |
| Degraded (includes areas heavily invaded by alien plants) | 50% | m ² | The sections identified for the expansion of the cemetery (west and east of the watercourse) is classified as a Terrestrial and Aquatic CBA and ESA. The vegetation on site is disturbed and degraded and can be described having a low ecological value. Alien plant cover of <i>herb and grasses</i> was recorded on some of the impacted areas. The site is heavily polluted by litter from the adjacent residential area. |
| Transformed (includes cultivation, | 10% | m ² | There are a number of footpaths throughout the development |

| | | | |
|---------------------------------------|--|--|------------------------------------------------------------------------------------|
| dams, urban, plantation, roads, etc.) | | | area as a result of people traversing the site from the adjacent residential area. |
|---------------------------------------|--|--|------------------------------------------------------------------------------------|

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

| Terrestrial Ecosystems | | Description of Ecosystem, Vegetation Type, Original Extent, Threshold (ha, %), Ecosystem Status |
|-------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) | Critically | NA |
| | Endangered | Saldanha Flats Strandveld Status 2016: EN Status 2014: Endangered (EN) Status 2011: VU Change: more threatened Change Type: VU-EN Change Year: 2014 |
| | 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 National Vegetation Map of South Africa (2012) identifies the remnants of natural vegetation occurring within the area as Saldanha Flats Strandveld (VU).

Distribution Western Cape Province: Extensive coastal flats from St Helena Bay and the southern banks of the Great Berg River near its mouth in the north to Saldanha and Langebaan in the south, with the southernmost extension at the coast near Yzerfontein and Rietduin. Altitude 0–120 m.

Vegetation & Landscape Features Sclerophyllous shrublands built of a sparse emergent and moderately tall shrub layer, with an open succulent shrub layer forming the undergrowth. With conspicuous displays of geophytes and annual herbaceous flora in spring.

Geology & Soils The main geology is shallow calcareous sand over a fossiliferous Pleistocene limestone hardpan layer along an old marine terrace. The hardpan of the Sandveld Group is exposed in places while farmers often rip the hardpan and accumulate rock piles in cultivated fields. The Sandveld Group overlies the Cape Granites as well as the Malmesbury Group metasediments into which the granites intruded. Dominant land type Hb (almost 50%), followed by Db and Ha.

Climate Mainly cyclonic rainfall varying from approximately 250 mm in the north to 380 mm in the south (overall MAP: 300 mm), almost exclusively in winter. Mean daily maximum and minimum temperatures 26.6°C and 7.9°C for February and July, respectively. Mean monthly maximum and minimum temperatures for Langebaanweg 36.5°C and 2.2°C for January/February and July/August, respectively. Advective sea fog and dew contribute to the moisture balance in summer and autumn. Frost infrequent. Strong southeasterly winds typical of the summer period, northerly winds more frequent in the winter months, especially between May and August. See also climate diagram for FS 3 Saldanha Flats Strandveld (Figure 4.128).

Important Taxa Tall Shrubs: *Euclea racemosa* subsp. *racemosa* (d), *Nylandtia spinosa*, *Rhus glauca*.

Low Shrubs: *Aspalathus lotoides* subsp. *lagopus*, *Clusia daphnoides*, *Euryops linifolius*, *Exomis microphylla*, *Hermannia pinnata*, *Lebeckia sericea*, *Leysera gnaphalodes*, *Nenax hirta* subsp. *calciphila*, *Pterocelastrus tricuspidatus*, *Pteronia divaricata*, *P. ovalifolia*, *P. uncinata*. Succulent Shrubs: *Euphorbia mauritanica*, *Ruschia macowanii*, *Tetragonia decumbens*, *T. fruticosa*, *Zygophyllum cordifolium*, *Z. morgsana*. Herbs: *Dimorphotheca pluvialis* (d), *Oncosiphon suffruticosum* (d), *Arctotheca calendula*, *Foveolina tenella*, *Hebenstretia repens*, *Helichrysum litorale*, *Nemesia versicolor*, *Senecio arenarius*, *Ursinia anthemoides* subsp. *anthemoides*. Geophytic Herbs: *Trachyandra ciliata*, *T. divaricata*. Succulent Herbs: *Dorotheanthus bellidiformis* (d), *Conicosia pugioniformis* subsp. *pugioniformis*, *Mesembryanthemum guerichianum*, *Senecio littoreus*. Graminoids: *Bromus pectinatus* (d), *Ehrharta calycina*, *E. villosa* var. *villosa*, *Schismus barbatus*, *Tribolium echinatum*.

Biogeographically Important Taxa (all West Coast endemics) Low Shrub: *Afrolimon capense* (d). Succulent Shrub: *Prenia pallens* subsp. *pallens*. Herbs: *Amellus asteroides*, *Grielum grandiflorum*. Geophytic Herb: *Ferraria densepunctulata*. Succulent Herb: *Tetragonia chenopodioides*. Graminoids: *Cladoraphis cyperoides*, *Thamnochortus spicigerus*.

Endemic Taxa Geophytic Herbs: *Hessea mathewsii*, *Romulea elliptica*.

Conservation Endangered. Target 24%. Some 11% statutorily conserved in the West Coast National Park and Yzerfontein Nature Reserve and a very small portion also in private conservation areas such as Jakkalsfontein and West Point. More than a half has already been transformed for cultivation, road building or by urban development. Serious alien infestation is caused by trees such as *Acacia cyclops* and *A. saligna* and herbs including *Bromus diandrus* and *Medicago hispida*. Erosion generally very low.

References Boucher (1982, 1983, 1987, 1996c), Boucher & Rode (1996a, b, 1997a, b, c, d, 1999).

The following indigenous vegetation species were recorded during the survey conducted on the 11 May 2018:

- *Euclea racemosa* subsp.
- *racemosa* (d),
- *Nylandtia spinose*,
- *Euphorbia mauritanica*,
- *Ruschia macowanii*,
- *Tetragonia fruticosa*,
- *Zygophyllum morgsana*,
- *Bromus pectinatus*,
- *Sarcocornia* sp.

No species of Conservation Concern (SCC) were recorded on site.

Alien Trees, Weeds and Grasses-

- *Weeds and Grasses*

The area is mapped as CBA and ESA according to the 2017 Western Cape Biodiversity Spatial Plan.

The section identified for the expansion of the cemetery (area immediately south of the existing cemetery) is classified as a Terrestrial and Aquatic CBA and ESA. The vegetation on site is disturbed and degraded and can be described having a low ecological value. The water course is not pristine and a gravel weir blocks the water flow. The wetland is described as a Western Strandveld Channelled Valley Bottom Wetland.



Photo 1: View of proposed expansion area.



Photo 2: View of proposed expansion area.

The section not identified for the cemetery expansion to the south of the non-perennial water course vegetation is in a better ecological condition and classified as an Ecological Support Area (ESA1). The vegetation structure can be described as grassy and herb-rich areas consisting of a rich geophyte flora alternates with low to medium shrubland comprising of some succulent plant species. This area is assessed having a moderate ecological value. ESA areas are not essential for meeting biodiversity targets, but they play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services. The non-perennial water course, wetland and buffer areas are assessed having a high conservation value.

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): | NA | | | |

(a) Provide a description.

Although the area is considered untransformed it is characteristic of an area that is heavily degraded with low densities of alien vegetation scattered through the site. The vegetation on site is degraded and considered to be of low conservation value.

8. LAND USE CHARACTER OF THE SURROUNDING AREA

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

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

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

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

It is surrounded by an existing cemetery to the east, commercial agriculture to the south, residential to the north, and recreational / sporting facilities to the west with no to limited ecological connectivity.

The proposed development is adjacent to the existing cemetery and adjacent to all the amenities and infrastructure as associated with the town of Laingville.

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.

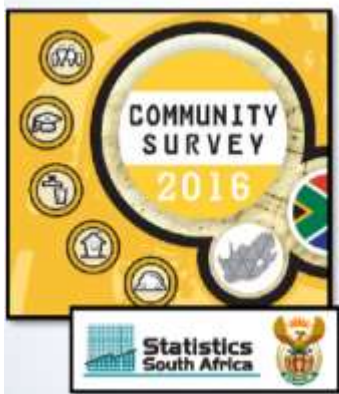
The Saldanha Bay Municipality covers an area of 2 015 km² (approximately 166 565,48 hectares) and has a coastline of 238km. In total 6.5% of the geographical land are urban land and 93.5% rural land. Overall Saldanha Bay municipality constitutes 6.4% of the entire West Coast geographical land making it the smallest municipal area in the district. The area includes the towns of Hopefield; Langebaan, Saldanha, Jacobsbaai, Vredenburg, Paternoster and St Helena. 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 | 35590 | 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 cemetery expansion will 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 E 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 | | | |

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

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

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

| LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS | ADMINISTERING AUTHORITY and how it is relevant to this application | TYPE Permit/license/authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the SAHRA and CARA, coastal discharge permit, etc.) | DATE (if already obtained): |
|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| National Environmental Management Act, 1998 (Act No. 107 of 1998) [NEMA] and relevant regulations | Western Cape Department of Environmental Affairs and Development Planning | Environmental Authorisation Application | 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 | Development within the regulated area - Section 21 c and i. | This application is to be handled by the Municipality. |
| 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] Regulations Relating To The Management Of Human Remains | | Development of a cemetery | 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 | Heritage Western Cape | NID | RoD |

| | | | |
|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------|
| Resources Act 25 of 1999 [NHRA] | South African Heritage Resource Agency | | Received |
| 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 |
| Western Cape Noise Control Regulations [P.N. 200/2003] | | Construction and operation of the cemetery must comply with the requirements of these regulations. | NA |
| 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 |
| Saldanha Bay Municipality: Cemeteries and Crematoria By-Laws | Saldanha Bay Municipality | Development of a cemetery | 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: |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 [Regulations Relating To The Management Of Human Remains] | 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 |
| 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. |
| Saldanha Bay Municipality: Cemeteries and Crematoria By-Laws | Development and operation of a cemetery. |

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

Section C: PUBLIC PARTICIPATION

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

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

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| In terms of Regulation 41 of the EIA Regulations, 2014 (as amended) - | | |
| (a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of - | | |
| (i) the site where the activity to which the application relates, is or is to be undertaken; and | YES | EXEMPTION |

| | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|-----|
| (ii) any alternative site | YES | EXEMPTION | N/A |
| (b) giving written notice, in any manner provided for in Section 47D of the NEMA, to – | | | |
| (i) the occupiers of the site and, if the applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken; | YES | EXEMPTION | N/A |
| (ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken; | YES | EXEMPTION | |
| (iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area; | YES | EXEMPTION | |
| (iv) the municipality (Local and District Municipality) which has jurisdiction in the area; | YES | EXEMPTION | |
| (v) any organ of state having jurisdiction in respect of any aspect of the activity; and | YES | EXEMPTION | |
| (vi) any other party as required by the Department; | YES | EXEMPTION | N/A |
| (c) placing an advertisement in - | | | |
| (i) one local newspaper; or | YES | EXEMPTION | |
| (ii) any official <i>Gazette</i> 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. NA | | | |

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 |
|----------------------------------------------------------------|------------------------|------------------------|--------------------------|
| DEA&DP: Development Management (Competent Authority) | - | - | - |
| CapeNature | - | - | - |
| DEA&DP: Pollution and Chemicals Management | - | - | - |
| DEA&DP: Waste Management | - | - | - |
| Department of Agriculture, National Department | - | - | - |
| Department of Agriculture, Western Cape (provincial) | - | - | - |
| Department of Water and Sanitation | - | - | - |
| Heritage Western Cape | - | - | - |
| Saldanha Bay 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).

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| 1. Is the development permitted in terms of the property's existing land use rights? | YES | NO | Please explain |
| According to the 2011 approved municipal SDF the land use associated with the development site is undertermined. | | | |
| A rezoning application would be required. | | | |
| 2. Will the development be in line with the following? | | | |
| (a) Provincial Spatial Development Framework ("PSDF"). | YES | NO | Please explain |
| The expansion of the cemetery is in line with the objectives manifested in the approved Western Cape Provincial SDF. | | | |
| (b) Urban edge / edge of built environment for the area. | YES | NO | Please explain |

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| The existing and proposed cemetery expansion is located within the urban edge as per the 2011 approved municipal SDF. | | | |
| (c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g., would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF ?). | YES | NO | Please explain |
| The expansion of the cemetery is in line with the 2011 approved Saldanha Bay SDF and IDP. | | | |
| (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 |
| Not applicable for this application. | | | |
| 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 expansion is in line with the 2017 Conceptual municipal SDF (in draft form awaiting approval). | | | |
| 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 expansion is in line with the 2017 Conceptual municipal SDF (in draft form awaiting approval). | | | |
| 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 |
| According to the 2011 approved municipal SDF the existing cemeteries would have sufficient capacity for the next 5 years (until 2016). The expansion is in line with the 2017 Conceptual municipal SDF (in draft form awaiting approval). | | | |
| 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 |
| Water, electricity and sanitation services should it be required will be provided by the Municipality. | | | |
| 7. Is this project provided for in the infrastructure planning of the municipality and if not, what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant municipality in this regard must be attached to the BAR as Appendix E .) | YES | NO | Please explain |
| The expansion is in line with the 2017 Conceptual municipal SDF (in draft form awaiting approval). | | | |
| 8. Is this project part of a national programme to address an issue of national concern or importance? | YES | NO | Please explain |
| The provision of space for burial purposes is a function of the Municipality and the Municipality is mandated by provincial and consequently National to fulfil the functions that they are mandated to provide. | | | |
| 9. Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.) | YES | NO | Please explain |
| The application is for the expansion of the existing cemetery. The proposed development area for the expansion is the obvious option for the activity. | | | |
| 10. Will the development proposal or the land use associated with the development proposal applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)? | YES | NO | Please explain |
| The section identified for the expansion of the cemetery (area immediately south of the existing cemetery) is classified as a Terrestrial and Aquatic CBA and ESA. The vegetation on site is disturbed and degraded and can be described having a low ecological value. The water course is not pristine and a gravel weir blocks the water flow. The wetland is described as a Western Strandveld Channelled Valley Bottom Wetland. | | | |
| The section excluded for the cemetery expansion to the south of the non-perennial water course vegetation is in a better ecological condition and classified as an Ecological Support Area (ESA1). The vegetation structure can be described as grassy and herb-rich areas consisting of a rich geophyte flora alternates with low to medium shrubland comprising of some succulent plant species. This area is assessed having a moderate ecological value. ESA areas are not essential for meeting biodiversity targets, but they play an important role in supporting the functioning of PAs or | | | |

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| CBAs, and are often vital for delivering ecosystem services. The non-perennial water course, wetland and buffer areas are assessed having a high conservation value. | | | |
| 11. Will the development impact on people's health and well-being (e.g., in terms of noise, odours, visual character and 'sense of place', etc.)? | YES | NO | Please explain |
| The proposed development is for the expansion of the existing cemetery and will therefore blend-in well with the existing aesthetic of the area. | | | |
| 12. Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs? | YES | NO | Please explain |
| The proposed development area is Municipal owned land that is currently unused (open space) within the approved urban edge as manifested in the 2011 municipal SDF. The expansion is in line with the 2017 Conceptual municipal SDF (in draft form awaiting approval), and it is not foreseen that unacceptable opportunity costs will occur as a result of the cemetery expansion. | | | |
| 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>Negative impacts:</p> <p>Loss of degraded indigenous vegetation Potential groundwater contamination (leachate) Dust and erosion Potential impact on watercourse traversing the site Loss of habitat - watercourse/wetland (aquatic)</p> <p>Positive impacts:</p> <p>Provision of sufficient burial space for the community Potential job creation (development / establishment phase)</p> | | | |
| 14. Is the development the best practicable environmental option for this land/site? | YES | NO | Please explain |
| The development area is currently unused and degraded vegetated land that has been categorised as natural grazing. The development area has been strip ploughed more than 10 years ago and there are alien species scattered throughout the site. As such the area proposed for the cemetery is the best practicable environmental option for the expansion of the cemetery. | | | |
| 15. What will the benefits be to society in general and to the local communities? | | | Please explain |
| The expansion will result in the provision of sufficient burial space for the ever growing community of Laingville. | | | |
| 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: | | | |
| <ul style="list-style-type: none"> • The general principles as set out in Section 2 of NEMA are implemented as described below in 18. • The potential impacts for both the construction and the operational phase have been identified in this report – this allows for the appropriate management and mitigation measures to be identified and implemented where and when necessary to prevent environmental degradation and promote sustainability. • 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 were included as proposed EA conditions and included in the EMP. • All involved in the planning and design identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage. The risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in Section 2 were taken in consideration and used in the assessments, mitigations and recommendations throughout this report. • Adequate and appropriate opportunity for public participation was provided and included in Appendix F as per the guidelines and regulations in decisions that may affect the environment. The consideration of environmental attributes in management and decision making which may have a significant effect on the environment was ensured. The modes of environmental management best suited to ensure that a particular activity is pursued in accordance with the principles of environmental management set out in Section 2, was identified and employed. Refer to section below. | | | |
| 18 Describe how the principles of environmental management as set out in Section 2 of the NEMA have been taken into account: | | | |

A full public participation as described in the legislation and guidelines will be/ is followed. The proposed development will not have a significant impact on biodiversity. The proposed development is situated within an existing urban edge and will not disturb the landscape and sites that constitute the nation's cultural heritage. The proposed development will not exceed or exploit renewable resource to an extent that they reach a level beyond which their integrity is jeopardised. The proposed development will not have a significant environmental impact and it is recommended that the Environmental Management Programme be adhered to accordingly.

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 proposal is for the **EXPANSION** of an existing cemetery and is proposed on vacant municipal property within the urban edge.

No other property alternatives were assessed as no feasible or reasonable property alternative exists. The development site is situated within the approved urban edge and is in line with the 2017 conceptual SDF (Draft). The location and site alternative has the advantage of it being located inside the urban edge which is located adjacent to the existing cemetery and is considered disturbed with degraded indigenous vegetation.

- (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:

The proposal is for the **EXPANSION** of an existing cemetery.

- (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 proposal is for the **EXPANSION** of an existing cemetery.

The design and layout of the expansion area will be determined once the geotechnical assessment has been concluded and the report has been received.

- (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 proposal is for the **EXPANSION** of an existing cemetery.

Technology alternatives are therefore not applicable to this application.

- (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:

The proposal is for the **EXPANSION** of an existing cemetery.

The cemetery will be operated as per the requirements of the National Health Act, 61 of 2003: Regulations Relating to the Management of Human Remains as well as the Saldanha Bay Municipality: Cemeteries and Crematoria By-Laws.

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

The No-Go option will result in the site remaining as is presently; a vacant disturbed municipal area. A look at the Need and Desirability as manifested in the local SDF supports the cemetery expansion as proposed herein. The proposed cemetery expansion may provide temporary jobs to the community during the development / establishment phase and further burial space for the growing community.

- (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:

Not Applicable.

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

The proposal is for the **EXPANSION** of an existing cemetery.

No other reasonably practicable or feasible options exist in order to ensure that the Laingville community has sufficient burial capacity than to expand its existing cemeteries. No other favourable or feasible location alternative exists.

- (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:

The ever-increasing rate of urbanisation, the steady occurrence of informal settlements and the impact of HIV/AIDS on communities, contribute to the increase of indiscriminate placing of cemetery sites. Cemeteries also form an essential part of a community's tradition and culture and it is imperative that appropriate burial space should provide within an acceptable distance to a particular community (e.g. 2,5km for rural communities and between 5 to 20km for urban communities).

No other reasonably practicable or feasible options exist in order to ensure that the Laingville community has sufficient burial capacity than to expand its existing cemeteries. No other favourable or feasible location alternative exists. Other than that proposed in this application.

2. PREFERRED ALTERNATIVE

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

The proposal is for the **EXPANSION** of an existing cemetery.

No other reasonably practicable or feasible options exist in order to ensure that the Laingville community has sufficient burial capacity than to expand its existing cemeteries. No other favourable or feasible location alternative exists.

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:

Potential contamination of groundwater is always a concern for any cemetery development. However, 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 landscape is to be surveyed through the geotechnical investigation which will inform the layout to ensure that designed according to such parameters.

The watercourse traversing the site and the 32m buffer implemented around the watercourse and wetland to be excluded from the development area and are **NOT** to be impacted upon.

- (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

The biodiversity areas as mapped for the application area are indicated in the biodiversity overlay map included as Appendix D. According to the 2017 Western Cape Biodiversity Spatial Plan the site is mapped as follows:

1. West of the water course the site is mapped as ESA 1: Terrestrial.
2. East of the watercourse the site is mapped as CBA 1 and 2: Terrestrial and aquatic and ESA 2: Terrestrial

Critical Biodiversity Areas:

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

The desired management objective for CBA1 is to 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.

The desired management objective CBA2 is to maintain a functional, natural or near-natural state, with no further loss of natural habitat. These areas should be rehabilitated.

Ecological Support Areas:

ESAs are not essential for meeting biodiversity targets but play an important role in supporting the ecological functioning of CBAs, and deliver important ecosystem services.

ESAs facilitate landscape connectivity, promote resilience to climate change, and buffer elements of the landscape including protected areas and sites that are important for the survival of individual species.

The desired management objective of an ESA1 is to maintain a functional near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised.

The desired management objective of ESA2 is to restore and/or manage to minimize impact on ecological processes and ecological infrastructure functioning, especially soil and water-related services, and to allow for faunal movement.

According to the Land Use Advice (LUA) Handbook (Pool-Stanvliet *et al.* 2017) the Western Cape Province is approximately 12.9 million ha. 22% of this area has been identified as CBA (2.9 million ha), 14 % is formally protected, 19% has no natural cover remaining, 32% has been identified as Other Natural Area and the remaining 13% of the province falls into the ESA category.

Therefore the extent of ESAs in the Western Cape equates to 1644503 ha (13%).

In terms of this proposal:

The portion of the development categorised as ESA equates to approximately 3.8 ha.

The total loss of ESA within the Western Cape in respect of this application amount to: $(3.8 \text{ ha} / 1644503 \text{ ha}) \times 100 = \mathbf{0.00023\%}$

The portion of the development categorised as CBA equates to approximately 2.8 ha.

The total loss of CBA within the Western Cape in respect of this application amount to: $(2.8 \text{ ha} / 2859785 \text{ ha}) \times 100 = \mathbf{0.00009\%}$

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

CBA and ESA occur on site according to the 2017 Western Cape Biodiversity Spatial Plan.

The section identified for the expansion of the cemetery (area immediately south of the existing cemetery) is classified as a Terrestrial and Aquatic CBA and ESA. The vegetation on site is disturbed and degraded and can be described having a low ecological value. The water course is not pristine and a gravel weir blocks the water flow. The wetland is described as a Western Strandveld Channelled Valley Bottom Wetland.



Photo 1: View of proposed expansion area.



Photo 2: View of proposed expansion area.

The section **EXCLUDED** for the cemetery expansion to the south of the non-perennial water course vegetation is in a better ecological condition and classified as an Ecological Support Area (ESA1). The vegetation structure can be described as grassy and herb-rich areas consisting of a rich geophyte flora alternates with low to medium shrubland comprising of some succulent plant species. This area is assessed having a moderate ecological value. ESA areas are not essential for meeting biodiversity targets, but they play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services. The non-perennial water course, wetland and buffer areas are assessed having a high conservation value.

Refer to details in the Ecological Biodiversity Assessment in Appendix G.

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| 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 |
| No species of Conservation Concern (SCC) were recorded on site during either of the surveys conducted. | | |
| Describe the manner in which any other biological aspects will be impacted: | | |
| The botanical sensitivity allocated to the site is low and moderate. The proposed cemetery is planned to be expanded through the non-perennial water course and wetland area. | | |
| It was concluded that from an ecological impact point of view that the proposed development will have an unacceptable significant negative impact on environmental features of the site and surrounds if the specialist recommendations in this report are not taken into consideration and effectively implemented. | | |
| Will the proposed development also trigger section 63 of the NEM: ICMA? | YES | NO |
| If yes, describe the following: (i) the extent to which the applicant has in the past complied with similar authorisations; (ii) whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development proposal or listed activity is consistent with the purpose for establishing and protecting those areas; (iii) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area; (iv) the likely socio-economic impact if the listed activity is authorised or is not authorised; (v) the likely impact of coastal environmental processes on the proposed development; (vi) whether the development proposal or listed activity— (a) is situated within coastal public property and is inconsistent with the objective of conserving and enhancing coastal public | | |

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| <p>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> |
| Not Applicable. |

(c) Social and Economic aspects:

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| 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? | UNKNOWN |
| What is the expected value of the employment opportunities during the development phase? | UNKNOWN |
| What percentage of this will accrue to previously disadvantaged individuals? | -% |
| How will this be ensured and monitored (please explain): | |
| A participation goal would be included in the contract to force the contractor to use previously disadvantaged individuals. This would be monitored and the contractor would be penalised should he not comply. | |
| 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? | NA |
| What percentage of this will accrue to previously disadvantaged individuals? | NA |
| How will this be ensured and monitored (please explain): | |
| - | |
| Any other information related to the manner in which the socio-economic aspects will be impacted: | |
| NA | |

(d) Heritage and Cultural aspects:

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| <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 cemetery expansion will 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 E of the BAR.</p> |
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2. WASTE AND EMISSIONS

(a) Waste (including effluent) management

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| 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? | Builders waste Volumes | |

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| | Approximately 500 kg |
| All non-recyclable waste will be removed from site to a licensed landfill site. Waste that can be recycled will be where possible. | |

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|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|----|
| 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? | NA m ³ | |

| | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|----|
| Will the development proposal require waste to be treated / disposed of on site? | YES | NO |
| If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of? | NA m ³ | |
| If no, where and how will the waste be treated / disposed of? Please explain. Indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of? | Builders waste Volumes Approximately 500 kg | |

All non-recyclable waste will be removed from site to a licensed landfill site. Waste that can be recycled will be where possible. During the construction phase waste will be removed to the municipal landfill site.

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----|
| Has the municipality or relevant authority confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? If yes, provide written confirmation from the municipality or relevant authority. | YES | NO |
| Will the development proposal produce waste that will be treated and/or disposed of at another facility other than into a municipal waste stream? | YES | NO |
| If yes, has this facility confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? Provide written confirmation from the facility. | YES | NO |
| Does the facility have an operating license? (If yes, please attach a copy of the licence.) | YES | NO |
| Facility name: | | |
| Contact person: | | |
| Cell: | Postal address: | |
| Telephone: | Postal code: | |
| Fax: | E-mail: | |

| |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Describe the measures that will be taken to reduce, reuse or recycle waste: |
| <ul style="list-style-type: none"> • Soil removed during construction will be reused for infilling as required. • All non-recyclable waste will be removed from site to a licensed landfill site. • Waste that can be recycled will be where 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? | | m ³ |
| Describe the emissions in terms of type and concentration and how these will be avoided/managed/treated/mitigated: | | |
| Not Applicable. | | |

3. WATER USE

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

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

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

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

| | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| (c) Does the development proposal require a water use permit / license from DWS? | YES | NO |
| If yes, please submit the necessary application to the DWS and attach proof thereof to this application as an Appendix. | | |
| Please be advised that the development falls within the Regulated Area in terms of section 21 c and i. As such an application must be made to DWS. Please note that Eco Impact has not been appointed to facilitate the application with DWS. | | |

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

The Western Cape is a water scarce province; as such the use of water should be in strict compliance with the water restriction applicable to the region. Water saving initiatives such as the use of non-potable water for any construction should be implemented.

4. POWER SUPPLY

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

If required – from the Saldanha Bay Municipality.

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

NA

5. ENERGY EFFICIENCY

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

NA

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

NA

6. TRANSPORT, TRAFFIC AND ACCESS

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

Access to the cemetery development west of the watercourse would be required and must be investigated following the geotechnical investigation is concluded for the development area.

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

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

Noise will be generated during the construction of the cemetery - this is noise generally associated with construction activities and will be temporary for the duration of construction.

Noise during the operational phase - this would be noise associated with funeral services which is generally considered as low as any noise generated to be in terms of the applicable local and provincial legislation governing noise and nuisance.

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

8. OTHER

NA

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

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

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

| 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 |
| | Very high (VH) | 10 | Results in complete destruction of patterns and permanent cessation of processes. |
| Probability (P) The likelihood of the impact actually occurring. Probability is estimated on a scale, and a score assigned | Very improbable (VP) | 1 | probably will not happen |
| | Improbable (I) | 2 | some possibility, but low likelihood |
| | Probable (P) | 3 | distinct possibility |
| | Highly probable (HP) | 4 | most likely |
| | Definite (D) | 5 | impact will occur regardless of any prevention measures |
| Significance (S) | Determined through a synthesis of the characteristics described above: S = (E+D+M) x P Significance can be assessed as low, medium or high | | |
| Low: < 30 points: | The impact would not have a direct influence on the decision to develop in the area | | |
| Medium: 30 – 60 points: | The impact could influence the decision to develop in the area unless it is effectively mitigated | | |
| High: < 60 points: | The impact must have an influence on the decision process to develop in the area | | |
| No significance | When no impact will occur or the impact will not affect the environment | | |
| Status | Positive (+) | | Negative (-) |
| The degree to | Completely | 90- | The impact can be mostly to completely reverse with |

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

(b) Please describe any gaps in knowledge.

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

(c) Please describe the underlying assumptions.

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

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

(d) Please describe the uncertainties.

None at this stage.

(e) Describe adequacy of the assessment methods used.

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

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

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

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

| | |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Alternative 1: | <p><u>GEOGRAPHICAL AND PHYSICAL</u></p> <ul style="list-style-type: none"> • Ground water contamination • Soil contamination • Compaction of soil • Increased Stormwater run-off • Surface water contamination (watercourse) <p><u>ECOLOGICAL AND BIOLOGICAL</u></p> <ul style="list-style-type: none"> • Loss of indigenous vegetation • Loss of habitat - watercourse/wetland (aquatic) <p><u>SOCIO-ECONOMIC</u></p> <ul style="list-style-type: none"> • Traffic impacts • Noise • Job creation • Social - provision of burial space for the community <p><u>HERITAGE AND CULTURAL HISTORIC</u></p> <ul style="list-style-type: none"> • Cultural-Historical Impacts • Visual Impacts |
| No-go Alternative: | The No-Go option will result in the site remaining as is presently. |

(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).

Impact Tables have been included in APPENDIX J of the BAR.

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

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

No site selection matrix was undertaken. No site alternatives have been proposed for this project as the purpose of this application is for the **expansion** of the existing cemetery.

(d) Outcome of the site selection matrix.

Not Applicable.

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.

Ecological Baseline Assessment
Eco Impact Legal Consulting - June 2018

Concluding Remarks and Summary of Impact Mitigation and Rehabilitation Measures Proposed before, during and after the Proposed Activities:

The botanical sensitivity allocated to the site is low and moderate. The proposed cemetery is planned to be expanded through the non-perennial water course and wetland area.

It was concluded that from an ecological impact point of view that the proposed development will have an unacceptable significant negative impact on environmental features of the site and surrounds if the specialist recommendations in this report are not taken into consideration and effectively implemented.

The area immediately south of the existing cemetery can be used for the expansion, provided that a buffer between the expansion area and the non-perennial water course is in place and protected and that the necessary structures can be put in place to prevent seepage from the cemetery into these areas. It is however recommended that the area south of the non-perennial water course classified as an ESA area be considered for the expansion of the cemetery.

Summary of recommendations as listed in the report and additional recommendations to be implemented are listed below:

Construction, Operational and Rehabilitation phases -

- The project implementation process should be subject to standard Environmental Management Programme (EMP) prescripts and conditions and only proceed under supervision of a competent and diligent Environmental Control Officer, both during the construction, operational and decommission/rehabilitation phases.
- Undertake development activities only in identified and specifically demarcated areas as proposed.
- Demarcate no-go areas before any land clearing occurs under the supervision of an ECO. Demarcation must be clearly visible and effective and no-go area must remain demarcated throughout construction phase.
- Personnel should be restricted to the construction camp site and immediate construction areas only.
- Remove and conserve topsoil layer and overburden material for rehabilitation after construction activities have ceased
- Implement site specific erosion and storm water runoff management measures as according to EMP requirements to prevent (or if prevention is not possible limit) any erosion from occurring on the development footprint area and surrounds.
- Proper waste bins to be provided during construction and operation and all waste to be regularly (at least once a week) removed to municipal landfill site.
- If any fuel or hazardous materials is spilled on site it must be treated as according to EMP requirements.
- The cement mixing area must be within a demarcated area and no cement mix runoff water escapes from cement mixing area.
- The landowner/s must adhere to his/her legal obligations to actively eradicate and manage alien tree infestations present on the applicable and surrounding properties.
- Site specific construction and operational phase storm water management plan must be compiled and implemented to prevent any erosion or significant increase in storm water runoff from occurring.
- Should any signs of erosion or artificial recharge be observed the municipality must implemented rectification and preventions measures immediately and consult with the appointed ECO before implementing these measures.
- Only use vegetation indigenous to the area to rehabilitate impacted/decommissioned areas and implement ongoing monitoring of the rehabilitated areas until successful rehabilitation has taken place.
- After topsoil has been replaced ongoing monitoring and removal of alien vegetation regrowth must be conducted to ensure effective rehabilitation of indigenous vegetation.
- Decommissioned areas must be rehabilitated and planted with indigenous vegetation immediately after built structures have been removed.
- Monitor rehabilitation of areas impacted outside of the proposed development areas or

decommissioned areas on a 6 monthly basis until effective/successful rehabilitation has been obtained.

- If erosion is detected during or after rehabilitation implement erosion rectification and preventions measures as guided by an ECO

Eco Impact is of the opinion, and based on the survey and desk study done, that the proposed development activities; if designed and implemented according to the recommendations as provided in this report, will not have an unacceptable significantly negative impact on the environmental aspects of the site and surrounds as assessed in this report.

***We await the Geotechnical Report from the appointed Engineer.**

4. ENVIRONMENTAL IMPACT STATEMENT

Provide an environmental impact statement of the following:

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

The assessment of these impacts before and after recommended mitigation is summarised in the table below. After mitigation, none of the impacts are assessed as being above LOW significance.

Construction Phase:

- Compaction of soil - (medium impact before and after mitigation);
- Increase in stormwater run-off - (low impact before and after mitigation);
- Loss of indigenous vegetation - (medium impact before and after mitigation);
- Traffic Impacts - (low impact before and after mitigation);
- Noise Impacts - (low impact before and after mitigation);
- Cultural-Historical Impacts - (low impact before and after mitigation);
- Visual Impacts - (low impact before and after mitigation);
- Potential job creation;
- Impact of proposed development activities on surface- and groundwater resources.

Operational Phase:

- Groundwater resources - (high impact before mitigation and low impact with mitigation measures);
- Soil contamination - (high impact before mitigation and low impact with mitigation measures);
- Compaction of soil - (medium impact before and after mitigation);
- Increase in stormwater run-off (low impact before and after mitigation);
- Traffic Impacts - (low impact before and after mitigation);
- Noise Impacts - (low impact before and after mitigation);
- Cultural-Historical Impacts - (low impact before and after mitigation);
- Visual Impacts - (low impact before and after mitigation);
- Social Impacts - provision of burial space for the community;
- Impact of proposed development activities on surface- and groundwater resources.

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.

Negative impacts:

Loss of degraded indigenous vegetation
 Potential groundwater contamination (leachate)
 Dust and erosion
 Potential surface water contamination (Watercourse)

Positive impacts:

Provision of sufficient burial space for the community
 Potential job creation (development / establishment phase)

5. IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES

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

The key mitigation measure is impact avoidance. Where adverse impacts cannot reasonably be prevented, construction and operations should be managed through the effective implementation of the EMP with a strong emphasis on post-construction rehabilitation and operational management and monitoring. Please refer to the EMP for more details on the mitigation and management measures.

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

None at this stage.

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

The applicant is the operator of the existing cemetery and does have the financial means to implement the conditions of the EA together with the management, mitigation and management measures included in the EMPr.

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

None at this stage.

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

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

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

- The information provided by the client is accurate and unbiased;
- The scope of this investigation is to assess the direct and cumulative environmental impacts associated with the development; and
- Should the proposed project be authorised, the applicant will incorporate the recommendations and mitigation measures outlined in this BAR, the EMP 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

The proposed cemetery expansion area is located adjacent to the existing cemetery in an area with similar topography to that of the existing cemetery. The site is municipal owned vacant land.

The section identified for the expansion of the cemetery (area immediately south of the existing cemetery) is classified as a Terrestrial and Aquatic CBA and ESA. The vegetation on site is disturbed and degraded and can be described having a low ecological value.

The expansion creates much needed burial space as the current cemetery is fast reaching capacity. Due to the important role that cemeteries play in a community, it is imperative that cemeteries should be located within an acceptable distance to the community it serves which is the

case with the proposed expansion.

(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.

Recommended that the EA prescribe that:

- Recommendations of specialists should be complied with.
- Should any heritage artefacts be exposed during construction that all activities be stopped, and Heritage Western Cape contacted pre any further action being permitted.
- The project implementation process should be subject to standard Environmental Management Programme prescripts and conditions under supervision of a competent and diligent ECO, during its construction and decommissioning phases.
- Groundwater Monitoring
 - Groundwater monitoring should be conducted at least once a year.
 - Groundwater monitoring must include but not limited to Heterotrophic Plate Count, Faecal coliforms, Faecal streptococci, Escherichia coli and staphylococcus aureus.
- Implementation of the on-site storm water system as well as the perimeter drains diverting surface water around the site.
- The non-perennial watercourse, wetland and buffer areas are assessed having a high conservation value and must not be impacted upon.

*Additional recommendations may be included following the geotechnical investigation.

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

Recommended that the EA prescribe that:

- Should any heritage artefacts be exposed during construction that all activities be stopped, and Heritage Western Cape contacted pre any further action being permitted.
- The project implementation process should be subject to standard Environmental Management Programme prescripts and conditions under supervision of a competent and diligent ECO, during its construction and decommissioning phases. That the facility be audited on yearly bases by an external environmental auditor during operations.

(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) | No |
| | 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. | No |
| | Appendix E1: Copy of comment from HWC. | Yes |
| Appendix F: | Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required in Section C above. | Yes |
| Appendix G: | Specialist Report(s) | Yes |
| Appendix H : | EMPr | Yes |
| Appendix I: | Additional information related to listed waste management activities (if applicable) | NA |
| Appendix J: | If applicable, description of the impact assessment process followed to reach the proposed preferred alternative within the site. | NA |
| Appendix K: | Any Other (if applicable). | Yes |

SECTION J: DECLARATIONS

TO BE PROVIDED WITH THE FINAL BAR