

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

October 2017

PROJECT TITLE

VEGETATION CLEARING AND DEVELOPMENT OF ERF 145, ATLANTIS INDUSTRIAL AREA

REPORT TYPE CATEGORY	REPORT REFERENCE NUMBER	DATE OF REPORT
Pre-Application Basic Assessment Report (if applicable) ¹	16/3/3/6/7/1/A1/2/3180/18	July 2018
Draft Basic Assessment Report ²	-	
Final Basic Assessment Report ³ or, if applicable Revised Basic Assessment Report ⁴ (strikethrough what is not applicable)	-	

Notes:

- 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".
- 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/A1/2/3180/18
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

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ACRONYMS USED IN THIS BASIC ASSESSMENT REPORT AND APPENDICES:

BAR	Basic Assessment Report
CBA	Critical Biodiversity Area
DEA	National Department of Environmental Affairs
DEA&DP	Western Cape Government: Environmental Affairs and Development Planning
DWS	National Department of Water and Sanitation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESA	Ecological Support Area
HWC	Heritage Western Cape
I&APs	Interested and Affected Parties
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:	Swartland Properties (Pty) Ltd		
Contact person:	Mr Ferdie Bester		
Postal address:	P.O Box 216, Moorreesburg		
Telephone:	+27 21 573 7500	Postal Code:	7310
Cellular:	083 450 9583	Fax:	086 512 2214
E-mail:	ferdieb@swartland.co.za		

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

Name of the EAP organisation:	Eco Impact Legal Consulting (Pty) Ltd		
Person who compiled this Report:	Nicolaas Hanekom		
EAP Reg. No.:	-		
Contact Person (if not author):	NA		
Postal address:	PO Box 45070		
Telephone:	(021) 671 1660	Postal Code:	7735
Cellular:	072 240 3092	Fax:	(021) 671 9967
E-mail:	admin@ecoimpact.co.za		
EAP Qualifications:	M.Tech Nature Conservation. Cape Peninsula University of Technology. EMS ISO 14001. North West University Environmental Audit ISO 19011. North West University		

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.

Mr Hanekom is a registered Professional Natural Scientist in the ecological science field with the South African Council for Natural Scientific Professions ("SACNASP") and a qualified EAP who holds a Masters Technologiae, Nature Conservation ("Vegetation Ecology and Biodiversity Assessment") degree from the Cape Peninsula University of Technology.

He further qualified in Environmental Management Systems ISO 14001:2004, at the Centre for Environmental Management, North-West University, as well as Environmental Management Systems ISO 14001:2004 Audit: Internal Auditors Course to ISO 19011:2003 level, from the Centre for Environmental Management, North-West University qualifying him to audit to ISO/SANS environmental compliance and EMS standards.

Mr Hanekom has been responsible for many environmental impact assessments and several EIA, waste license and atmospheric emission license applications as well as being involved in the implementation of several environmental management systems.

Refer to Appendix K: EAP CV

EXECUTIVE SUMMARY OF THE PRE-APPLICATION BASIC ASSESSMENT REPORT:

The clearing of Atlantis Sand Fynbos (critically endangered) of 1.6ha (whole property) to develop industrial buildings of approximately 10 650m² (66% coverage), parking and associated infrastructure on the whole property.

Location alternatives – No other location or site alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

Activity alternatives - No other activity alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

Layout alternatives – No other design or layout alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

Technology alternatives - No other technology alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

Operational alternatives – Operational alternative assessed is to not burn the cleared vegetation on site, but to remove them off site to the landfill site or authorized compost facility. A biodiversity offset as per the City of Cape Town identified Atlantis area must be finalized. The same area (1.6ha must be offset in the identified biodiversity offset area). Search and rescue by a botanist or horticulturist on the possible conservation worthy species on the area still to be cleared must be done prior to clearing. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

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

Impact Summary

Construction phase:

Soil erosion and dust - (Low impact before mitigation and low impact with mitigation measures);
Impact of construction activities on surface and underground water pollution - (High impact before mitigation and low impact with mitigation measures);
Impact on drainage line / groundwater resources - (High impact before mitigation and low impact with mitigation measures);
Impact on surrounding and municipal planning policies and guidelines - (Medium impact before mitigation and low impact with mitigation measures);

Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (Moderate impact before mitigation and low impact with mitigation measures);
 Increased jobs - (No impact before mitigation and positive impact with mitigation measures);
 The potential impact of the proposed development on archaeological, paleontological and heritage remains - (Low impact before mitigation and low impact with mitigation measures);
 Noise due to construction machinery - (Low impact before mitigation and low impact with mitigation measures);

Operational phase:

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

Decommissioning phase:

Similar to impacts associated with construction phase.

SECTION A: PROJECT INFORMATION

1. ACTIVITY LOCATION

Location of all proposed sites:	The property is located on the corner of Christopher Starke and Harry Alexander Crescent, Atlantis Industrial area
Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site:	Erf 145, Atlantis
Property size(s) in m ² for each proposed site:	1.6ha
Development footprint size(s) in m ² :	1.6ha
Surveyor General (SG) 21-digit code for each proposed site:	C01600870000014500000

2. PROJECT DESCRIPTION

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

YES	NO
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NA

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

The clearing of Atlantis Sand Fynbos (critically endangered) of 1.6ha (whole property) to develop industrial buildings of approximately 10 650m² (66% coverage), parking and associated infrastructure on the whole property.

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	Within 10 years of obtaining Environmental Authorisation

	operational aspects;	
(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.	Until vegetation clearing is completed.

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

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

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

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

Activity No(s):	Provide the relevant Basic Assessment Listed Activity(ies) as set out in Listing Notice 1 (GN No. R. 983)	
27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	
Activity No(s):	Provide the relevant Basic Assessment Listed Activity(ies) as set out in Listing Notice 3 (GN No. R. 985)	
12	The clearance of an area of 300 square meters or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan 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; iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line or even in urban areas; iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.	
Activity No(s):	Provide the relevant Scoping and EIR Listed Activity(ies) as set out in Listing Notice 2 (GN No. R. 984)	
NA		
Activity No(s):	Provide the relevant Category A Waste Management Activity(ies) as set out in List of Waste Management Activities (GN No. R. 921)	
NA		
Activity No(s):	Provide the relevant Category B Waste Management Activity(ies) as set out in List of Waste Management Activities (GN No. R. 921)	
NA		

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
industrial buildings of approximately 10 650m ²		
Infrastructure (e.g., roads, power and water supply/ storage) Provide brief description below:	YES	NO
industrial buildings of approximately 10 650m ²		
Processing activities (e.g., manufacturing, storage, distribution) Provide brief description below:	YES	NO
NA		
Storage facilities for raw materials and products (e.g., volume and substances to be stored) Provide brief description below:	YES	NO
NA		
Storage and treatment facilities for effluent, wastewater or sewage: Provide brief description below:	YES	NO
NA		
Storage and treatment of solid waste Provide brief description below:	YES	NO
NA		
Facilities associated with the release of emissions or pollution. Provide brief description below:	YES	NO
NA		
Other activities (e.g., water abstraction activities, crop planting activities) – Provide brief description below:	YES	NO
NA		

3. PHYSICAL SIZE OF THE PROPOSED DEVELOPMENT

(a) Property size(s): Indicate the size of all the properties (cadastral units) on which the development proposal is to be undertaken	1.6ha	ha
(b) Size of the facility: Indicate the size of the facility where the development proposal is to be undertaken	1.6ha	ha
(c) Development footprint: Indicate the area that will be physically altered as a result of undertaking any development proposal (i.e., the physical size of the development together with all its associated structures and infrastructure)	1.6ha	ha
(d) Size of the activity: Indicate the physical size (footprint) of the development proposal	1.6ha	ha
(e) For linear development proposals: Indicate the length (L) and width (W) of the development proposal	(L) NA	km
	(W) NA	m
(f) For storage facilities: Indicate the volume of the storage facility	NA	m ³
(g) For sewage/effluent treatment facilities: Indicate the volume of the facility (Note: the maximum design capacity must be indicated)	NA	m ³

4. SITE ACCESS

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

Erf 145, Atlantis is located inside the industrial area of Atlantis surrounded by industrial erven.			
Coordinates of all proposed sites: Latitude (S)	33°	35'	06.49"
Longitude (E)	18°	29'	40.72"

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

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

NA

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

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

NA

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

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

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

Locality Map:	<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>
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Site Plan:	Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site
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	<p>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>
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6. SITE PHOTOGRAPHS

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

SECTION B: DESCRIPTION OF THE RECEIVING ENVIRONMENT

Site/Area Description

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

1. GRADIENT OF THE SITE

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

Flat	Flatter than 1:10	1:10 – 1:4	Steeper than 1:4
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2. LOCATION IN LANDSCAPE

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

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

The property is situated inside the Atlantis industrial on the corner of Christopher Starke and Harry Alexander Crescent. The property consists of undeveloped industrial erf with Atlantis Sand Fynbos

vegetation that differs in quality.

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	Dolomite	Other (describe)
Provide a description.						
<p>Soil Soils with a diagnostic ferrihumic horizon, predominantly deep (Lamotte form)</p> <p>Geology: Mainly Quaternary quartz sand of the Springfontein Formation. Soils with a marked clay accumulation, strongly structured and a non-reddish colour. In addition one or more of vertic, melanic and plinthic soils may be present. Depth: >= 450 mm and < 750 mm Clay content: < 15%</p> <p>*Source: Soils and Geology ENPAT, CapeFarmMapper, 30 June 2018.</p>						

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.

Situated inside the urban area and industrial area of Atlantis with no water courses or wetlands in close proximity (within the regulated zone) to the site.

Wetlands Map



Since the stormwater pond is man-made and there are no other watercourses on or in close proximity to the site, the National Water Act will not be triggered.

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	NA			
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>Vegetation According to the Vegetation Map of South Africa, Lesotho, and Swaziland (Mucina, Rutherford and Powrie, 2005) there are one vegetation units within the study area, which is Atlantis Sand Fynbos (ASF), a Critically Endangered ecosystem.</p> <p>Biodiversity plans The study area does fall within the City of Cape Town's Biodiversity Network (2017).</p> <ul style="list-style-type: none"> • Critical Biodiversity category: Other Natural Areas • Critical Biodiversity Area Name: Unselected Natural Area: Good/Fair/Restorable • CBA Description Natural vegetation in Endangered, Vulnerable and Least Concern in good or restorable condition. • Significance Local significance. Will result in impaired ability to meet targets, given that higher categories will not always be achievable. • Objective Sustainable management within general rural land-use principles. • Actions Negotiable. Low priority, no urgency. Invasive alien control. • Compatible activities Until Bio Network is secured elsewhere, these areas may become NB if required as biodiversity offset sites. Higher impact activities could be considered on degraded portions. Vegetation in good condition should be subject to low impact activities only. 			

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

Habitat Condition	Percentage of habitat condition class (adding up to 100%) and area of each in square metre (m ²)		Description and additional comments and observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing/harvesting regimes, etc.)
Natural	10%	14 400 m ²	The natural veld to be cleared for develop is in a poor to moderate ecological condition. The western section was previously disturbed and evidence of soil disturbances is visible. Almost 90% of the site is invaded by <i>Acacia saligna</i> and the Eucalyptus tree line next to the road has affected

			the ecological conditions of the vegetation on the edge of the site next to the road.
Near Natural (includes areas with low to moderate level of alien invasive plants)	0%	m ²	
Degraded (includes areas heavily invaded by alien plants)	90%	1 600 m ²	The natural veld to be cleared for develop is in a poor to moderate ecological condition. The western section was previously disturbed and evidence of soil disturbances is visible. Almost 90% of the site is invaded by <i>Acacia saligna</i> and the Eucalyptus tree line next to the road has affected the ecological conditions of the vegetation on the edge of the site next to the road.
Transformed (includes cultivation, dams, urban, plantation, roads, etc.)	0%	0ha	

(c) Complete the table to indicate:

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

Terrestrial Ecosystems		Description of Ecosystem, Vegetation Type, Original Extent, Threshold (ha, %), Ecosystem Status
Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Critically	According to the Vegetation Map of South Africa, Lesotho, and Swaziland (Mucina, Rutherford and Powrie, 2005) there are one vegetation units within the study area, which is Atlantis Sand Fynbos (ASF), a Critically Endangered ecosystem.
	Endangered	Total ha of vegetation Unit / Threatened Ecosystem in SA 2012 – 69833ha % of Vegetation Unit / Threatened Ecosystem in WCP – 100% 2017 Original Extent Threatened Ecosystem in WCP - 68831,2 ha 2017 ha remaining Threatened Ecosystem in WCP - 26556,48 ha 2017 % remaining Threatened Ecosystem in WCP – 38.6 % WCP Conservation target as a % - 30% WC_Ecosystem Protection Levels as a % of conservation target – 11.56%
	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.

NA

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):	Undeveloped Industrial property with natural vegetation			

(a) Provide a description.

The natural veld to be cleared for develop is in a poor to moderate ecological condition. The western section was previously disturbed and evidence of soil disturbances is visible. Almost 90% of the site is invaded by *Acacia saligna* and the Eucalyptus tree line next to the road has affected the ecological conditions of the vegetation on the edge of the site next to the road.

8. LAND USE CHARACTER OF THE SURROUNDING AREA

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

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

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

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

The property is situated in the Industrial area of Atlantis.

9. SOCIO-ECONOMIC ASPECTS

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

The key conclusions on the current socio-economic profile of Atlantis are as follows:

- There is an ample supply of unskilled and semi-skilled labour living in Atlantis. The residential area is in close proximity to the industrial area so many of the workers in fact walking distance from work which is particularly advantageous for shift work in manufacturing.
- There is access to an adequate supply of skilled labour within the broader Cape Town region, although skilled workers typically live close the urban centre of Cape Town as it provides better amenities and commute to Atlantis.
- There is a small local skills pool in electronics, steel work and other manufacturing because of the long legacy in the area.
- There is no noticeable difference in wages in Atlantis as compared to the broader Cape Town region, but labour intensive manufacturers noted that they prefer to locate in areas where the rural minimum wage applies as Atlantis although somewhat dislocated from Cape Town's urban area is still classified as urban so the higher minimum wage applies.
- Average tertiary educational attainment in Atlantis is very low with only 3% of the population having obtained any form of tertiary education. The higher education facility in the area – West Coast College appears to provide some relevant training but complaints about both the extent and quality of training provided were registered by existing firms.
- The low average level of educational attainment amongst the Atlantis community, high unemployment rates and low average household income are the context for a community that suffers from a number of social problems notably drug abuse. While the incidence of business related crime has remained relatively stable, crime and drug abuse were raised as issues faced by some firms operating in the area. These issues however are prevalent in many areas in the Cape and South Africa more broadly and are not specific to Atlantis.
- In terms of the need for social infrastructure, inadequate healthcare facilities were noted by both the community and one of the existing firms¹.

The clearing of the vegetation in order to construct a building on the industrial erf will result in job employment opportunities for the locals that are needed for the area to improve the socio-economic conditions in Atlantis.

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;*

¹ <https://www.greencape.co.za/assets/Atlantis-SEZ-content/20140729-ASEZ-prefeasibility-report-final.pdf>

- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and palaeontological sites;
- (g) graves and burial grounds, including—
- (i) ancestral graves;
 - (ii) royal graves and graves of traditional leaders;
 - (iii) graves of victims of conflict;
 - (iv) graves of individuals designated by the Minister by notice in the Gazette;
 - (v) historical graves and cemeteries; and
 - (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) movable objects, including—
- (i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage;
 - (iii) ethnographic art and objects;
 - (iv) military objects;
 - (v) objects of decorative or fine art;
 - (vi) objects of scientific or technological interest; and
 - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996)".

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

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

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

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

LEGISLATION	ADMINISTERING AUTHORITY	TYPE Permit/ license/ authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval)	DATE (if already obtained):
National Environmental Management Act, 1998 (Act No. 107 of 1998) [NEMA] and relevant regulations	Western Cape Department of Environmental Affairs and Development Planning	Environmental Authorisation Application	N/A

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

POLICY/ GUIDELINES/BY-LAWS	ADMINISTERING AUTHORITY
Guideline on Public Participation	Western Cape Department of Environmental Affairs and Development Planning
Guidelines on Alternatives	Western Cape Department of Environmental Affairs and Development Planning
Guideline on Need and desirability	Western Cape Department of Environmental Affairs and Development Planning
Guideline for Environmental Management Plans (EMP's)	Western Cape Department of Environmental Affairs and Development Planning
Guideline of Specialist Reports	Western Cape Department of Environmental Affairs and Development Planning

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

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	Describe how the proposed development complies with and responds to:
NEMA	Basic Assessment Process conducted to assess potential environmental impacts and apply for Environmental Authorisation
NEMWA	If applicable all waste management activities to be conducted during the proposed development to adhere to the NEMWA requirements

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	Describe how the proposed development complies with and responds to:
NEMBA	If applicable potential impacts on biodiversity features of the site and surrounds to be assessed and mitigation measures proposed during the basic assessment process.
NEMAQA	If applicable potential impacts on air quality on site and surrounds to be assessed and mitigation measures proposed during the basic assessment process.
NWA	If applicable potential impacts on ground- and surface water resources assessed during basic assessment process and if required a water use authorisation under section 21 will be applied for.
CARA	If applicable the landowner/applicant is reminded of his/her responsibility to manage and eradicate certain weed and alien plant vegetation on his/her property and requirements are incorporated into the EMP.
National Health Act	If applicable potential impacts on the health and wellbeing of human population on the site and surrounds are assessed and mitigation measure are proposed during the basic assessment process.
Constitution of the RSA	General application to individual rights of all on and adjacent to the sites.
Fencing Act	If applicable potential impacts and requirements concerning fencing of the site and surrounds to be assessed and mitigation measures proposed during the basic assessment process.
National Building Regulations and Building Standards Act	If applicable potential impacts and requirements concerning erection of building on the site and surrounds to be assessed and mitigation measures proposed during the basic assessment process.
NHRA	If applicable potential impacts on graves and burial sites and any structures older than 60 years are assessed and mitigation measures proposed during the basic assessment process.
NVFFA	If applicable any activities that could result in the start of veld fires are assessed and mitigated during the basic assessment process.
FFFARSRA	If applicable any potential impacts of activities associated with pest control, the use of agricultural remedies and with providing / manufacturing fertiliser are assessed and mitigated during the basic assessment process.
Guideline on Public Participation	The public participation guideline is used to determine the requirements in terms of implementing the public participation process during the basic assessment process to be conducted. The guideline was also used to determine the most effective communication strategies for public participation.
Guidelines on Alternatives	The guidelines for alternatives assessment was used to develop a methodology for alternatives assessment. This methodology was applied to determine and assess the most viable alternatives to the project. The assessment was undertaken against the baseline environment (i.e. the no-go option).
Guideline on Need and desirability	The guideline was taken into account to determine whether the project complied according to the concept of Best Practicable Environmental Option as well as environmental and social sustainability.
Guideline for EMP's	The guideline for EMP's was taken into account to determine the most effective minimize, mitigation and management measures to minimise or prevent the potential environmental impacts identified during the basic assessment process

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

Section C: PUBLIC PARTICIPATION

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

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

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

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

State Department / Organ of State	Date request was sent:	Date comment received:	Support / not in support
Cape Nature	-	-	-
DEA&DP: Development Management	-	-	-
DEA&DP: Waste Management	-	-	-
DEA&DP: Pollution and Chemicals Management	-	-	-
Department of Water and Sanitation	-	-	-
Heritage Western Cape	-	-	-
City of Cape Town	-	-	-

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

Await comment

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

Await comment

Note:

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

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

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

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

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

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

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

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

SECTION D: NEED AND DESIRABILITY

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

1. Is the development permitted in terms of the property's existing land use rights?	YES	NO	Please explain
The proposed erf is zone Industrial 1 and located inside an industrial area.			
2. Will the development be in line with the following?			
(a) Provincial Spatial Development Framework ("PSDF").	YES	NO	Please explain
The proposed erf is zone Industrial 1 and located inside an industrial area.			

(b) Urban edge / edge of built environment for the area.	YES	NO	Please explain
The area is inside the approved urban edge.			
(c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g., would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF ?).	YES	NO	Please explain
The proposed erf is zone Industrial 1 and located inside an industrial area.			
(d) An Environmental Management Framework (" EMF ") adopted by this Department. (e.g., Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
No EMF adopted for the area.			
(e) Any other Plans (e.g., Integrated Waste Management Plan (for waste management activities), etc.)).	YES	NO	Please explain
NA			
3. Is the land use (associated with the project being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (in other words, is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
The proposed erf is zone Industrial 1 and located inside an industrial area.			
4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur on the proposed site at this point in time?	YES	NO	Please explain
The proposed erf is zone Industrial 1 and located inside an industrial area.			
5. Does the community/area need the project and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g., development is a National Priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
The proposed erf is zone Industrial 1 and located inside an industrial area.			
6. Are the necessary services available together with adequate unallocated municipal capacity (at the time of application), or must additional capacity be created to cater for the project? (Confirmation by the relevant municipality in this regard must be attached to the BAR as Appendix E .)	YES	NO	Please explain
The proposed erf is zone Industrial 1 and located inside an industrial area.			
7. Is this project provided for in the infrastructure planning of the municipality and if not, what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant municipality in this regard must be attached to the BAR as Appendix E .)	YES	NO	Please explain
The proposed erf is zone Industrial 1 and located inside an industrial area.			
8. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
9. Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.)	YES	NO	Please explain
The proposed erf is zone Industrial 1 and located inside an industrial area.			
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
Atlantis Sand Fynbos is a Critically Endangered vegetation type which occurs on site. The site is within the Biodiversity Network: Other Natural Areas.			
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
Application is for clearing of vegetation to develop the industrial erf.			
12. Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs?	YES	NO	Please explain
Development cost will be for the developer.			
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?	Clearing and loss of critically endangered vegetation. However, the natural veld to be cleared for develop is in a poor to moderate ecological condition. The western section was previously disturbed and evidence of soil disturbances is visible. Almost 90% of the site is invaded by <i>Acacia saligna</i> and the Eucalyptus tree line next to the road has affected the ecological conditions of the vegetation on the edge of the site next to the road.		
14. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain
The property is already zoned for industrial purposes. Clearing and loss of critically endangered vegetation. However, the natural veld to be cleared for develop is in a poor to moderate ecological			

condition. The western section was previously disturbed and evidence of soil disturbances is visible. Almost 90% of the site is invaded by *Acacia saligna* and the Eucalyptus tree line next to the road has affected the ecological conditions of the vegetation on the edge of the site next to the road.

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

Development of the industrial erf will create job opportunities needed in Atlantis.

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

NA

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

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

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

NATIONAL ENVIRONMENTAL MANAGEMENT PRINCIPLES

2. Principles

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

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

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

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

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

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

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

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

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

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

(4)

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

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

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

- (iii) that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;
- (iv) that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;
- (v) that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
- (vi) that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;
- (vii) that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and
- (viii) that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

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

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

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

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

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

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

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

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

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

(f) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and

capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Applied as and when relevant to the proposed activities.

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

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

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

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

proposed activities.

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

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

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

SECTION E: DETAILS OF ALL THE ALTERNATIVES CONSIDERED

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

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

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

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

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

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

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

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

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

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

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

No other location or site alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

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

No other activity alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

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

No other design or layout alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

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

No other technology alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

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

Operational alternative assessed is to not burn the cleared vegetation on site, but to remove them off site to the landfill site or authorized compost facility. A biodiversity offset as per the City of Cape Town identified Atlantis area must be finalized. The same area (1.6ha must be offset in the identified biodiversity offset area). Search and rescue by a botanist or horticulturist on the possible conservation worthy species on the area still to be cleared must be done prior to clearing. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

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

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

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

NA

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

Location alternatives – No other location or site alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

Activity alternatives - No other activity alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

Layout alternatives – No other design or layout alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

Technology alternatives - No other technology alternatives were assessed as no feasible or reasonable alternative exists. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

Operational alternatives – Operational alternative assessed is to not burn the cleared vegetation on site, but to remove them off site to the landfill site or authorized compost facility. A biodiversity offset as per the City of Cape Town identified Atlantis area must be finalized. The same area (1.6ha must

be offset in the identified biodiversity offset area). Search and rescue by a botanist or horticulturist on the possible conservation worthy species on the area still to be cleared must be done prior to clearing. The property is included in the urban edge of Atlantis and zoned for industrial purposes. The application is to clear vegetation to develop the erf.

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

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

Refer to points (a) – (f) above.

2. PREFERRED ALTERNATIVE

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

The preferred alternative is to clear the vegetation in order to develop on the industrial erf.

SECTION F: ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE ALTERNATIVES

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

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

- (a) Geographical, geological and physical aspects:

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

- (b) Ecological aspects:

Will the proposed development and its alternatives have an impact on CBAs or ESAs? If yes, please explain: Also include a description of how the proposed development will influence the quantitative values (hectares/percentage) of the categories on the CBA/ESA map.	YES	NO
The property is already zoned for industrial purposes. Clearing and loss of critically endangered vegetation. However, the natural veld to be cleared for develop is in a poor to moderate ecological condition. The western section was previously disturbed and evidence of soil disturbances is visible. Almost 90% of the site is invaded by <i>Acacia saligna</i> and the Eucalyptus tree line next to the road has affected the ecological conditions of the vegetation on the edge of the site next to the road.		
Will the proposed development and its alternatives have an impact on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)? If yes, please explain:	YES	NO
The property is already zoned for industrial purposes. Clearing and loss of critically endangered vegetation. However, the natural veld to be cleared for develop is in a poor to moderate ecological condition. The western section was previously disturbed and evidence of soil disturbances is visible. Almost 90% of the site is invaded by <i>Acacia saligna</i> and the Eucalyptus tree line next to the road has affected the ecological conditions of the vegetation on the edge of the site next to the road.		
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
Clearing and loss of critically endangered vegetation. However, the natural veld to be cleared for develop is in a poor to moderate ecological condition. The western section was previously disturbed and evidence of soil disturbances is visible. Almost 90% of the site is invaded by <i>Acacia saligna</i> and the Eucalyptus tree line next to the road has affected the ecological conditions of the vegetation on the edge of the site next to the road.		
Describe the manner in which any other biological aspects will be impacted:		

The site and vegetation is identified as a Biodiversity Protection Spatial Planning Category (BPSPC) – Buffer 1 area on the approved Cape Town Spatial Development Framework as approved on 8 May 2012. This can however be mitigated by applying for a biodiversity offset area. The City of Cape Town BioNet (2017) identified the vegetation as unselected natural vegetation with a high to moderate restorability. Atlantis Sand Fynbos is classified as critically Endangered due to the high density of Threatened and Protected Species that occurs inside this vegetation type. It is probable that one or more threatened and protected species occurs on site. However, none were recorded during the site survey on 30 May 2018. The species recorded and present on site includes *Phylica cephalantha*, *Trichocephalus stipularis*, *Thamnochortus cf. punctatus*, *Metalasia densa*, *Asparagus rubicundus*, *Lachenalia bulbifera*, *Ruschia sp*; *Oxalis sp*.

The endangered *Leucospermum parile* is known to occur in this vegetation type and area but was not recorded. The species is red flagged since the species is steadily declining and will most probably be listed as Critically Endangered in the future. Species associated with this population included *Willdenowia incurvata*, *Othonna coronopifolia*, *Arctotis stoechadifolia*, *Trichocephalus stipularis*, *Aspalathus cf. spinose*, *Metalasia muricata* and *Aspalathus ternate* (VULNERABLE).



**Erf 145, Atlantis.
Ecological Condition**

Legend
Erf

Scale: 1:4 514
Date created: June 2, 2018



Will the proposed development also trigger section 63 of the NEM: ICMA?

YES NO

If yes, describe the following:

- (i) the extent to which the applicant has in the past complied with similar authorisations;
- (ii) whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development proposal or listed activity is consistent with the purpose for establishing and protecting those areas;
- (iii) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area;
- (iv) the likely socio-economic impact if the listed activity is authorised or is not authorised;
- (v) the likely impact of coastal environmental processes on the proposed development;
- (vi) whether the development proposal or listed activity—
 - (a) is situated within coastal public property and is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations;
 - (b) is situated within the coastal protection zone and is inconsistent with the purpose for which a coastal protection zone is established as set out in section 17 of NEM: ICMA;
 - (c) is situated within coastal access land and is inconsistent with the purpose for which coastal access land is designated as set out in section 18 of NEM: ICMA;
 - (d) is likely to cause irreversible or long-lasting adverse effects to any aspect of the coastal environment that cannot satisfactorily be mitigated;
 - (e) is likely to be significantly damaged or prejudiced by dynamic coastal processes;
 - (f) would substantially prejudice the achievement of any coastal management objective; or
 - (g) would be contrary to the interests of the whole community;

(vii) whether the very nature of the proposed activity or development requires it to be located within coastal public property, the coastal protection zone or coastal access land; (viii) whether the proposed development will provide important services to the public when using coastal public property, the coastal protection zone, coastal access land or a coastal protected area; and (ix) the objects of NEM: ICMA, where applicable.
NA

(c) Social and Economic aspects:

What is the expected capital value of the project on completion?	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?	As much as possible
How will this be ensured and monitored (please explain):	
Employment opportunities to be allocated as according to municipal policy/guidelines which promote the employment and appointment of previously disadvantaged individuals.	
How many permanent new employment opportunities will be created during the operational phase of the project?	Unknown
What is the expected current value of the employment opportunities during the first 10 years?	Unknown
What percentage of this will accrue to previously disadvantaged individuals?	Unknown
How will this be ensured and monitored (please explain):	
Employment opportunities to be allocated as according to municipal policy/guidelines which promote the employment and appointment of previously disadvantaged individuals.	
Any other information related to the manner in which the socio-economic aspects will be impacted:	
-	

(d) Heritage and Cultural aspects:

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

(a) Waste (including effluent) management

Will the development proposal produce waste (including rubble) during the development phase?	YES	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?	Cleared vegetation ± 30 m ³	
Cleared vegetation.		

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?	Unknown.	
Application is for clearing of vegetation. The operations on site must still be finalized with a City of Cape Town building plan approval once authorization was given to clear the vegetation.		

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		
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?		
Cleared vegetation may not be burned on site, but must be remove off site to		

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

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

(b) Emissions into the atmosphere

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

3. WATER USE

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

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

(b) If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	NA	m ³
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(c) Does the development proposal require a water use permit / license from DWS?	YES	NO
If yes, please submit the necessary application to the DWS and attach proof thereof to this application as an Appendix.		
NA		

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

4. POWER SUPPLY

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

Eskom via municipal grid.

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

NA

5. ENERGY EFFICIENCY

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

NA

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

NA

6. TRANSPORT, TRAFFIC AND ACCESS

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

The proposed development will have direct access off the internal municipal roads.

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

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

Noise

Additional noise due to clearing of vegetation. This will be however within the normal noise level of the surrounding industrial activities.

Odour

None.

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

8. OTHER

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

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

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

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

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

Criteria	Description		
Nature	a description of what causes the effect, what will be affected, and how it will be affected.		
	Type	Score	Description
Extent (E)	None (No)	1	Footprint
	Site (S)	2	On site or within 100 m of the site
	Local (L)	3	Within a 20 km radius of the centre of the site
	Regional (R)	4	Beyond a 20 km radius of the site
	National (Na)	5	Crossing provincial boundaries or on a national / land wide scale
Duration (D)	Short term (S)	1	0 – 1 years
	Short to medium (S-M)	2	2 – 5 years
	Medium term (M)	3	5 – 15 years
	Long term (L)	4	> 15 years
	Permanent (P)	5	Will not cease
Magnitude (M)	Small (S)	0	will have no effect on the environment
	Minor (Mi)	2	will not result in an impact on processes
	Low (L)	4	will cause a slight impact on processes
	Moderate (Mo)	6	processes continuing but in a modified way
	High (H)	8	processes are altered to the extent that they temporarily cease
	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	Very improbable (VP)	1	probably will not happen
	Improbable (I)	2	some possibility, but low likelihood
	Probable (P)	3	distinct possibility

estimated on a scale, and a score assigned	Highly probable (HP)	4	most likely
	Definite (D)	5	impact will occur regardless of any prevention measures
Significance (S)	Determined through a synthesis of the characteristics described above: S = (E+D+M) x P Significance can be assessed as low, medium or high		
Low: < 30 points:	The impact would not have a direct influence on the decision to develop in the area		
Medium: 30 – 60 points:	The impact could influence the decision to develop in the area unless it is effectively mitigated		
High: > 60 points:	The impact must have an influence on the decision process to develop in the area		
No significance	When no impact will occur or the impact will not affect the environment		
Status	Positive (+)		Negative (-)
The degree to which the impact can be reversed	Completely reversible (R)	90-100%	The impact can be mostly to completely reversed with the implementation of the correct mitigation and rehabilitation measures.
	Partly reversible (PR)	6-89%	The impact can be partly reversed providing that mitigation measures as stipulated in the EMP are implemented and rehabilitation measures are undertaken
	Irreversible (IR)	0-5%	The impact cannot be reversed, regardless of the mitigation or rehabilitation measures taking place
The degree to which the impact may cause irreplaceable loss of resources	Resource will not be lost (R)	1	The resource will not be lost or destroyed provided that mitigation and rehabilitation measures as stipulated in the EMP are implemented
	Resource may be partly destroyed (PR)	2	Partial loss or destruction of the resources will occur even though all management and mitigation measures as stipulated in the EMP are implemented
	Resource cannot be replaced (IR)	3	The resource cannot be replaced no matter which management or mitigation measures are implemented.
The degree to which the impact can be mitigated	Completely mitigatable (CM)	1	The impact can be completely mitigated providing that all management and mitigation measures as stipulated in the EMP are implemented
	Partly mitigatable (PM)	2	The impact cannot be completely mitigated even though all management and mitigation measures as stipulated in the EMP are implemented. Implementation of these measures will provide a measure of mitigatability
	Un-mitigatable (UM)	3	The impact cannot be mitigated no matter which management or mitigation measures are implemented.

(b) Please describe any gaps in knowledge.

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

(c) Please describe the underlying assumptions.

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

- 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.

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

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

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

Alternative 1:	<p><u>Construction phase:</u></p> <ul style="list-style-type: none"> • Soil erosion and dust - (Low impact before mitigation and low impact with mitigation measures); • Impact of construction activities on surface and underground water pollution - (High impact before mitigation and low impact with mitigation measures); • Impact on drainage line / groundwater resources - (High impact before mitigation and low impact with mitigation measures); • Impact on surrounding and municipal planning policies and guidelines - (Medium impact before mitigation and low impact with mitigation measures); • Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (Moderate impact before mitigation and low impact with mitigation measures); • Increased jobs - (No impact before mitigation and positive impact with mitigation measures); • The potential impact of the proposed development on archaeological, paleontological and heritage remains - (Low impact before mitigation and low impact with mitigation measures); • Noise due to construction machinery - (Low impact before mitigation and low impact with mitigation measures); <p><u>Operational phase:</u></p> <ul style="list-style-type: none"> • Disturbance to subsurface geological layers - (Medium impact before mitigation and low impact with mitigation measures); • Soil erosion and dust - (Medium impact before mitigation and low impact with mitigation measures); • Impact of operation activities on surface and underground water pollution - (High impact before mitigation and low impact with mitigation measures); • Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (Low impact before mitigation and low impact with mitigation measures); <p><u>Decommissioning phase:</u></p> <ul style="list-style-type: none"> • Similar to impacts associated with construction phase.
Alternative 2:	NA
No-go Alternative:	The No-Go option will result in the site remaining as is at present.

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

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

Alternative 1 : Preferred Layout	Geographical and Physical Impacts
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	Soil erosion and dust
Nature of impact:	<p>Vegetation clearing activities will cause a disturbance to the soil and the vegetation cover on the site. This disturbance, unless carefully managed, could spread as a result.</p> <p>Soil erosion can occur due to wind (wind erosion cause dust pollution); and due to overland storm water flow should rains fall during construction. Due to the sloping nature of the terrain, it is unlikely that a shallow perched water table will develop on site. Residual soils are also expected to have a very low permeability and due to low infiltration rates and the sloping terrain, water will tend to runoff from surface in a downslope direction.</p> <p>Soil erosion can occur due to wind (wind erosion causes dust pollution).</p>
Extent and duration of impact:	Extent 1 (footprint) & Duration 5 (permanent)
Consequence of impact or risk:	Vegetation clearing activities can result in erosion and dust.

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

	pollution).
Extent and duration of impact:	Extent 1 (footprint) & Duration 5 (permanent)
Consequence of impact or risk:	Construction and excavation activities can result in erosion and dust.
Probability of occurrence:	2 (Improbable: some possibility, but low likelihood)
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	High
Indirect impacts:	Disturbance to surface area can result in erosion and dust generation
Cumulative impact prior to mitigation:	Exposing soil may lead to erosion and dust generation if not mitigated.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	16 - Low
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	Control access to roads and other areas to avoid disturbance of areas outside the development footprint. Undertake dust suppression as needed. Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.
Residual impacts:	It is not anticipated that the impact will be high if the mitigation measures are adhered to.
Cumulative impact post mitigation:	It is not anticipated that the impact will be high if the mitigation measures are adhered to.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	8 - Low

Alternative 1 : Preferred Layout	Geographical and Physical Impacts
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	Impact of construction activities on surface and underground water pollution
Nature of impact:	Diesel and oil spills affecting ground and surface water.
Extent and duration of impact:	Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)
Consequence of impact or risk:	Possible pollution of surface and ground water.
Probability of occurrence:	4 (most likely)
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	High
Indirect impacts:	Pollution of water resources
Cumulative impact prior to mitigation:	Diesel and oil spills affecting ground and surface water quality.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	64 - High
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.
Residual impacts:	It is not anticipated that the impact will be high if the mitigation measures are adhered to.
Cumulative impact post mitigation:	Diesel and oil spills affecting ground and surface water quality.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	28 - Low
OPERATIONAL PHASE	
Potential impact and risk:	Impact of construction activities on surface and underground water pollution
Nature of impact:	Diesel and oil spills affecting ground and surface water.
Extent and duration of impact:	Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)
Consequence of impact or risk:	Possible pollution of surface and ground water.
Probability of occurrence:	4 (most likely)
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	High
Indirect impacts:	Pollution of water resources

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

Alternative 1 : Preferred Layout	Geographical and Physical Impacts
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	Impact on surrounding and municipal planning policies and guidelines.
Nature of impact:	The site is earmarked for development and included in Atlantis industrial area and zoned already.
Extent and duration of impact:	Extent 1 (Footprint) & Duration 1 (0 – 1 years)
Consequence of impact or risk:	Possible impact on surrounding and municipal planning policies and guidelines.
Probability of occurrence:	2 (some possibility, but low likelihood)
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	High
Indirect impacts:	Impact on surrounding and municipal planning policies and guidelines.
Cumulative impact prior to mitigation:	Impact on surrounding and municipal planning policies and guidelines.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	8 - Low
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	None
Residual impacts:	Impact on surrounding and municipal planning policies and guidelines.
Cumulative impact post mitigation:	Possible impact on surrounding and municipal planning policies and

	guidelines.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	8 - Low
OPERATIONAL PHASE	
Potential impact and risk:	Impact on surrounding and municipal planning policies and guidelines.
Nature of impact:	The site is earmarked for development and included in Atlantis industrial area and zoned already.
Extent and duration of impact:	Extent 1 (Footprint) & Duration 1 (0 – 1 years)
Consequence of impact or risk:	Possible impact on surrounding and municipal planning policies and guidelines.
Probability of occurrence:	2 (some possibility, but low likelihood)
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	High
Indirect impacts:	Impact on surrounding and municipal planning policies and guidelines.
Cumulative impact prior to mitigation:	Impact on surrounding and municipal planning policies and guidelines.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	8 - Low
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	None
Residual impacts:	Impact on surrounding and municipal planning policies and guidelines.
Cumulative impact post mitigation:	Possible impact on surrounding and municipal planning policies and guidelines.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	8 - Low
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	Impact on surrounding and municipal planning policies and guidelines.
Nature of impact:	The site is earmarked for development and included in Atlantis industrial area and zoned already.
Extent and duration of impact:	Extent 1 (Footprint) & Duration 1 (0 – 1 years)
Consequence of impact or risk:	Possible impact on surrounding and municipal planning policies and guidelines.
Probability of occurrence:	2 (some possibility, but low likelihood)
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	High
Indirect impacts:	Impact on surrounding and municipal planning policies and guidelines.
Cumulative impact prior to mitigation:	Impact on surrounding and municipal planning policies and guidelines.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	8 - Low
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	None
Residual impacts:	Impact on surrounding and municipal planning policies and guidelines.
Cumulative impact post mitigation:	Possible impact on surrounding and municipal planning policies and guidelines.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	8 - Low

Alternative 1 : Preferred Layout	Biological Aspect Impacts
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area.
Nature of impact:	The site and vegetation is identified as a Biodiversity Protection Spatial Planning Category (BSPSC) – Buffer 1 area on the approved Cape Town Spatial Development Framework as approved on 8 May 2012.

	<p>This can however be mitigated by applying for a biodiversity offset area. The City of Cape Town BioNet (2017) identified the vegetation as unselected natural vegetation with a high to moderate restorability. Atlantis Sand Fynbos is classified as critically Endangered due to the high density of Threatened and Protected Species that occurs inside this vegetation type. It is probable that one or more threatened and protected species occurs on site. However, none were recorded during the site survey on 30 May 2018. The species recorded and present on site includes <i>Phylica cephalantha</i>, <i>Trichocephalus stipularis</i>, <i>Thamnochortus cf. punctatus</i>, <i>Metalsia densa</i>, <i>Asparagus rubicundus</i>, <i>Lachenalia bulbifera</i>, <i>Ruschia sp.</i>; <i>Oxalis sp.</i></p> <p>The endangered <i>Leucospermum parile</i> is known to occur in this vegetation type and area but was not recorded. The species is red flagged since the species is steadily declining and will most probably be listed as Critically Endangered in the future. Species associated with this population included <i>Willdenowia incurvata</i>, <i>Othonna coronopifolia</i>, <i>Arctotis stoechadifolia</i>, <i>Trichocephalus stipularis</i>, <i>Aspalathus cf. spinose</i>, <i>Metalsia muricata</i> and <i>Aspalathus ternate</i> (VULNERABLE).</p>
Extent and duration of impact:	Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)
Consequence of impact or risk:	Loss of significantly impacted upon indigenous vegetation and habitat.
Probability of occurrence:	4 (most likely)
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Low
Indirect impacts:	Loss of significantly impacted upon indigenous vegetation and habitat.
Cumulative impact prior to mitigation:	Loss of significantly impacted upon indigenous vegetation and habitat.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	36 - Medium
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	A biodiversity offset as per the City of Cape Town identified Atlantis area must be finalized. The same area (1.6ha must be offset in the identified biodiversity offset area). Search and rescue by a botanist or horticulturist on the possible conservation worthy species on the area still to be cleared must be done prior to clearing.
Residual impacts:	Loss of significantly impacted upon indigenous vegetation and habitat.
Cumulative impact post mitigation:	Possible impact on indigenous vegetation and habitats.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	8 - Low
OPERATIONAL PHASE	
Potential impact and risk:	Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area.
Nature of impact:	Loss of critically endangered vegetation.
Extent and duration of impact:	Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)
Consequence of impact or risk:	Loss of significantly impacted upon indigenous vegetation and habitat.
Probability of occurrence:	4 (most likely)
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	High
Indirect impacts:	Loss of significantly impacted upon indigenous vegetation and habitat.
Cumulative impact prior to mitigation:	Loss of significantly impacted upon indigenous vegetation and habitat.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	36 - Medium
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	Maintenance of the biodiversity offset area.

Residual impacts:	Loss of significantly impacted upon indigenous vegetation and habitat.
Cumulative impact post mitigation:	Possible impact on indigenous vegetation and habitats.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	8 - Low
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area.
Nature of impact:	Loss of critically endangered vegetation
Extent and duration of impact:	Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)
Consequence of impact or risk:	Loss of significantly impacted upon indigenous vegetation and habitat.
Probability of occurrence:	4 (most likely)
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	High
Indirect impacts:	Loss of significantly impacted upon indigenous vegetation and habitat.
Cumulative impact prior to mitigation:	Loss of significantly impacted upon indigenous vegetation and habitat.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	36 - Medium
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	None
Residual impacts:	Loss of significantly impacted upon indigenous vegetation and habitat.
Cumulative impact post mitigation:	Possible impact on indigenous vegetation and habitats.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	8 - Low

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

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

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

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

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

NA

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

The property was the only alternative considered. Clearing of vegetation was the alternative that were assessed against the no go or no development option.

(d) Outcome of the site selection matrix.

Construction phase:

- Soil erosion and dust - (**Low impact before mitigation and low impact with mitigation measures**);
- Impact of construction activities on surface and underground water pollution - (**High impact before mitigation and low impact with mitigation measures**);
- Impact on drainage line / groundwater resources - (**High impact before mitigation and low impact with mitigation measures**);
- Impact on surrounding and municipal planning policies and guidelines - (**Medium impact before mitigation and low impact with mitigation measures**);
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - (**Moderate impact before mitigation and low impact with mitigation measures**);
- Increased jobs - (**No impact before mitigation and positive impact with mitigation measures**);
- The potential impact of the proposed development on archaeological, paleontological and heritage remains - (**Low impact before mitigation and low impact with mitigation measures**);
- Noise due to construction machinery - (**Low impact before mitigation and low impact with mitigation measures**);

Operational phase:

- Disturbance to subsurface geological layers - (**Medium impact before mitigation and low impact**

with mitigation measures);

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

Decommissioning phase:

- Similar to impacts associated with construction phase.

3. SPECIALIST INPUTS/STUDIES, FINDINGS AND RECOMMENDATIONS

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

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

Ecology (botanical)

The natural veld to be cleared for develop is in a poor to moderate ecological condition. The western section was previously disturbed and evidence of soil disturbances is visible. The City of Cape Town BioNet (2017) identified the vegetation as unselected natural vegetation with a high to moderate restorability. Higher impact activities could be considered on degraded portions. It is recommended that the clearing of the vegetation be allowed. The following mitigation measures must be implemented to accommodate for the loss of the critical endangered vegetation that will be lost:

- A biodiversity offset with City of Cape Town must be finalized in line with the biodiversity land banking component of the Atlantis Industrial Incentive Scheme for each hectare of vegetation loss. An offset area of 1.6ha must be secured in the Dassenberg- Atlantis area within the Atlantis Industrial Incentive Scheme.
- A search and rescue of all translocatable species prior to commencement of construction must be done. A three month notice of commencement of construction or vegetation clearing must be given to the City of Cape Town and CapeNature to arrange for search and rescue in the appropriate season.

4. ENVIRONMENTAL IMPACT STATEMENT

Provide an environmental impact statement of the following:

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

Construction phase:

- Soil erosion and dust - **(Low impact before mitigation and low impact with mitigation measures);**
- Impact of construction activities on surface and underground water pollution - **(High impact before mitigation and low impact with mitigation measures);**
- Impact on drainage line / groundwater resources - **(High impact before mitigation and low impact with mitigation measures);**
- Impact on surrounding and municipal planning policies and guidelines - **(Medium impact before mitigation and low impact with mitigation measures);**
- Impact on the indigenous terrestrial flora and habitat present in the area. Impact on the naturally occurring fauna present in the area - **(Moderate impact before mitigation and low impact with mitigation measures);**
- Increased jobs - **(No impact before mitigation and positive impact with mitigation measures);**
- The potential impact of the proposed development on archaeological, paleontological and heritage remains - **(Low impact before mitigation and low impact with mitigation measures);**

- Noise due to construction machinery - (**Low impact before mitigation and low impact with mitigation measures**);

Operational phase:

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

Decommissioning phase:

- Similar to impacts associated with construction phase.

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

5. IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES

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

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

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

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

None.

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

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

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

Unknown at his stage.

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

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

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

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

SECTION H: RECOMMENDATIONS OF THE EAP AND SPECIALISTS

(a) In my view as the appointed EAP, the information contained in this BAR and the documentation attached hereto is sufficient to make a decision in respect of the listed activity(ies) applied for.	YES	NO
(b) If the documentation attached hereto is sufficient to make a decision, please indicate below whether, in your opinion, the listed activity(ies) should or should not be authorised:		
Listed activity(ies) should be authorised:	YES	NO
Provide reasons for your opinion		
All possible impacts on the environment have been assessed and can be mitigated and managed. The assessment did not lead to any fatal flaws if the development is approved, provided that the facility is operated in terms of all relevant applicable legislation and the EMP management activities implemented.		
(c) Provide a description of any aspects that were conditional to the findings of the assessment by the EAP and Specialists which are to be included as conditions of authorisation.		
<ul style="list-style-type: none"> • A biodiversity offset with City of Cape Town must be finalized in line with the biodiversity land banking component of the Atlantis Industrial Incentive Scheme for each hectare of vegetation loss. An offset area of 1.6ha must be secured in the Dassenberg- Atlantis area within the Atlantis Industrial Incentive Scheme. • A search and rescue of all translocatable species prior to commencement of construction must be done. A three month notice of commencement of construction or vegetation clearing must be given to the City of Cape Town and CapeNature to arrange for search and rescue in the appropriate season. 		
(d) If you are of the opinion that the activity should be authorised, please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an environmental authorisation.		
Recommended that the EA prescribe that:		
<ul style="list-style-type: none"> • 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. • A biodiversity offset with City of Cape Town must be finalized in line with the biodiversity land banking component of the Atlantis Industrial Incentive Scheme for each hectare of vegetation loss. An offset area of 1.6ha must be secured in the Dassenberg- Atlantis area within the Atlantis Industrial Incentive Scheme. • A search and rescue of all translocatable species prior to commencement of construction must be done. A three month notice of commencement of construction or vegetation clearing must be given to the City of Cape Town and CapeNature to arrange for search and rescue in the appropriate season. 		
(e) Please indicate the recommended periods in terms of the following periods that should be specified in the environmental authorisation:		
i. the period within which commencement must occur;	Within 5 years of obtaining Environmental Authorisation	
ii. the period for which the environmental authorisation is granted and the date on which the development proposal will have been concluded, where the environmental authorisation does not include operational	Within 10 years of obtaining Environmental Authorisation	

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

SECTION I: APPENDICES

The following appendices must be attached to this report:

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

SECTION J: DECLARATIONS

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