

DRAFT SCOPING REPORT

in support of an

ENVIRONMENTAL AUTHORIZATION

for

SWELLENDAM HOUSING PROJECT ON REMAINING EXTENT OF ERF 1, SWELLENDAM



Prepared for: Swellendam Municipality
Private Bag X11
Swellendam
6740
Tel: 028 514 1100
Fax: 028 541 2694
Email: info@swellendam.co.za

Prepared by: Eco Impact Legal Consulting (Pty) Ltd
P.O. Box 45070
Claremont
South Africa
7735
Tel: 021 671 1660
Fax: 021 671 9976
Email: admin@ecoimpact.co.za



JUNE 2018

PROJECT DETAILS

 <p>Environmental Health & Safety Legal Consulting</p>		<p>Title: Swellendam Housing Project on Remaining Extent of Erf 1, Swellendam</p> <p>Draft Scoping Report</p>		
<p>Eco Impact No:1-04/2018</p>		<p>Date: June 2018</p>		<p>Report Status: Draft Scoping Report</p>
<p>Carried Out By: Eco Impact Legal Consulting (Pty) Ltd P.O. Box 45070 Claremont 7735 Tel: 021 671 1660 Fax: 021 671 9976 E-mail: admin@ecoimpact.co.za</p>		<p>Commissioned By: Swellendam Private Bag X11 Swellendam 6740 Tel: 028 514 1100 Fax: 028 514 2694 Email: info@swellenmun.co.za</p>		<p>Client: Swellendam Private Bag X11 Swellendam 6740 Tel: 028 514 1100 Fax: 028 514 2694 Email: info@swellenmun.co.za</p>
<p>Author: Jessica Le Roux</p>			<p>Client Contact Person: Municipal manager</p>	
<p>© COPYRIGHT: Eco Impact Legal Consulting (Pty) Ltd</p>				
Verification	Capacity	Name	Signature	Date
Author	Senior EAP	Jessica Le Roux		07 June 2018

Executive Summary

The Swellendam Municipality proposes to establish a mixed use housing development on the Remaining Extent of Erf 1 at Swellendam.

The Swellendam Municipality proposes a subsidised housing project on a Remainder of Erf 1 at Swellendam, comprising of 950 residential erven. As well as 4 erven for community facilities, 2 erven for business, 3 for mixed use and 10 erven for public open space. Associated internal roads and associated services infrastructure.

Offsite upgrades to the bulk storm water infrastructure will be required. This will include upgrades to attenuation dams 4 and 5 as the proposed development's runoff will have a direct influence on the capacity. These attenuation dams are situated in a degraded non-perennial drainage line which runs to the west of the proposed site. Additional bulk water distribution, sewer reticulation and external road networks may need to be upgraded to accommodate the proposed development.

The proposed development site is an unused vacant area of ± 25.3 ha which is located south east of the town Swellendam's southern residential area. It consists of an undulating area in-between the residential area and the railway line of Swellendam South.

Site H is an undulating area in-between the residential area and the railway line of Swellendam South. The area has been completely transformed presumably by previous cultivation activities that took place on the site (exact date of when the area was last ploughed and cultivated is unknown). Little to mainly no indigenous vegetation species have returned to this transformed area and this area therefore has low conservation value and low botanical sensitivity. No evidence of surface water or aquatic vegetation species indicating the presence of a wetland area is present on the site.

The site falls within the general area that supports Swellendam Silcrete Fynbos, according to the new vegetation map of South Africa (Mucina & Rutherford 2006). This vegetation type is listed as a *Vulnerable* vegetation type in the South African National Spatial Biodiversity Assessment (Rouget et al 2004). It must be noted that the Western Cape Biodiversity Spatial Plan 2017 Ecosystem Threat Status reflects the current threat status of ecosystems in the Western Cape Province. Swellendam Silcrete Fynbos changed from Vulnerable to Endangered in 2016. Little to mainly no indigenous vegetation species is present within the proposed development site. The proposed development site has been identified as an Ecological Support Area ("ESA").

Eco Impact Legal Consulting ("Pty") Ltd ("Eco Impact") is appointed as independent Environmental Assessment Practitioners to undertake the Environmental Impact Assessment Process for the proposed development.

This Environmental Authorization is undertaken in terms of the National Environmental Management Act 107 of 1998 and the EIA regulations. Listed activities in terms of these regulations have been identified. The nature of the activities to be undertaken requires that a Scoping and Environmental Impact Assessment (EIA) process be undertaken.

Below is a summary of the some of the main anticipated impacts related to the proposed development:

- Impacts on soil where soil disturbances will occur
- Increased erosion risk due to the clearing of land for the proposed development leading to increase in storm water flow
- Hydrological impacts i.e. water quality of the water draining into the drainage line from the development area and impeding drainage line water flow
- Biodiversity/ecological impacts on i.e. terrestrial indigenous vegetation and wetland/drainage line habitat
- Visual impact and aesthetic/sense of place quality
- Traffic impact
- Social impacts i.e. temporary and permanent job creation; provision of subsidized housing; impact on income, sales and GGP; dust and noise nuisance impacts; changes in health and social wellbeing; impact on demand for services and amenities etc.

The EIA will be evaluated by DEA&DP who will either issue an Environmental Authorization (usually with conditions), or alternatively, refuse the application for authorization.

The nature and extent of this development, as well as potential environmental impacts associated with the construction, operation and decommissioning phases are explored in more detail in this Draft Scoping Report.

TABLE OF CONTENTS

SECTION 1: INTRODUCTION	9
1.1 APPLICATION FOR ENVIRONMENTAL AUTHORIZATION AND PROPOSED PROJECT DESCRIPTION.....	9
1.2 BACKGROUND AND PURPOSE OF THE SCOPING REPORT	12
1.3 ENVIRONMENTAL ASSESSMENT PRACTITIONER	12
1.3.1 Role and Competence of the EAP	12
1.3.2 Professional Team	13
1.3.3 Terms of Reference.....	13
1.4 LEGISLATIVE ASPECTS	14
1.4.1 Legislation.....	14
1.4.2 Policies.....	16
1.4.3 Guidelines	17
1.5 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY ..	17
SECTION 2: DESCRIPTION OF THE PROPERTY	17
2.1 PROPERTY DESCRIPTION AND LOCATION	17
2.2 GENERAL CHARACTERISTICS AND LAND USE	17
2.3 SPECIFIC CHARACTERISTICS.....	18
2.3.1. Biophysical Elements.....	18
2.3.2. Historical and Archaeological Characteristics	19
2.3.3. Socio-Economic Elements	19
2.3.4. Visual Elements.....	25
2.3.5. Agricultural Potential.....	25
2.3.6 Existing Services	25
SECTION 3: NEED AND DESIRABILITY	26
3.1 NEED AND DESIRABILITY	26
3.2 OTHER REQUIREMENTS	26
3.2.1 Integrated Development Plan and Spatial Development Framework	26
3.2.2 Urban Edge and Planning Guidelines.....	26
SECTION 4: ALTERNATIVES ASSESSMENT.....	27
4.1 PROPERTY AND LOCATION/SITE ALTERNATIVES	27
4.2 ACTIVITY ALTERNATIVES.....	30
4.3 DESIGN OR LAYOUT ALTERNATIVES.....	30
4.4 TECHNOLOGY ALTERNATIVES	30
4.5 OPERATIONAL ALTERNATIVES.....	31
4.6 THE OPTION OF NOT IMPLEMENTING THE ACTIVITY (NO-GO OPTION)....	31
SECTION 5: PUBLIC PARTICIPATION PROCESS	31
5.1 INTRODUCTION.....	31
5.2 IDENTIFICATION AND REGISTRATION OF KEY DEPARTMENTS AND OTHER I&APS.....	31
5.3 NOTIFICATION OF I&APS	32
5.4 PUBLIC MEETINGS AND WORKSHOPS	32
5.5 AVAILABILITY OF THE SCOPING REPORT	32
5.6 COMMENTS AND REPOSSES DURING THE SCOPING PHASE	32
5.7 PUBLIC PARTICIPATION DURING THE EIA PHASE	32
5.8 DECISION AND APPEAL PERIOD	33
SECTION 6: ENVIRONMENTAL ISSUES IDENTIFIED TO DATE	33
6.1 CONSTRUCTION PHASE IMPACTS	
6.1.1 Direct Impacts	Error! Bookmark not defined.
6.1.2 Cumulative Impacts.....	Error! Bookmark not defined.
6.2 OPERATIONAL PHASE IMPACTS	33
6.3 CLOSURE AND DECOMMISSIONING PHASE IMPACTS.....	34
SECTION 7: PLAN OF STUDY FOR ENVIRONMENTAL IMPACT ASSESSMENT ...	34
7.1 TASKS TO BE UNDERTAKEN.....	34

7.2	CONSULTATION WITH COMPETENT AUTHORITY	34
7.3	ASSESSMENT OF ENVIRONMENTAL ISSUES AND ALTERNATIVES	35
7.3.1	Alternative determination methodology.....	36
7.3.2	Role of the various parties in the consideration of alternatives	36
7.4	CRITERIA FOR ASSESSMENT OF IMPACTS.....	40
7.5	PUBLIC PARTICIPATION PROCESS	43
7.6	TERMS OF REFERENCE (TOR) FOR SPECIALIST STUDIES TO BE UNDERTAKEN IN THE EIA PHASE.....	43
	SECTION 8: ASSUMPTIONS AND LIMITATIONS	44
8.1	ASSUMPTIONS	44
8.2	LIMITATIONS.....	44
	SECTION 9: CONCLUSION.....	44
	SECTION 10: REFERENCES:	45

LIST OF APPENDICES

- Appendix A: Locality Maps
- Appendix B: Site Development Plans
- Appendix C: Photographs
- Appendix D: Public Participation
- Appendix E: Biodiversity Maps
- Appendix F: Specialist Studies
- Appendix G: Other

GLOSSARY

<p>"Activity" means an activity identified in Government Notice Number R718 of 2009, and GNR. 324, R. 325, and R. 327, of 2017 as a listed activity.</p>
<p>"Alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to property, activity, design or technology.</p>
<p>"Applicant" means a person who has submitted or intends to submit an application.</p>
<p>"Application" means an application for Environmental Authorization in terms of the EIA regulations, 2014 (as amended).</p>
<p>"Associated Infrastructure," means any building or infrastructure that is necessary for the functioning of a facility or activity or that is used for an ancillary service or use from the facility.</p>
<p>"Biodiversity" The variety of life occurring in an area, including the number of different species, the genetic wealth within each species, and the natural habitat where they are found.</p>
<p>"Borehole" Includes a well, excavation or any artificially constructed or improved underground cavity that can be used for the purpose of:</p> <ul style="list-style-type: none"> • intercepting, collecting or storing water in or removing water from an aquifer; • observing and collecting data and information on water in an aquifer; or • re-charging an aquifer.
<p>"Cultural significance" This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.</p>
<p>"Cumulative impact" in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.</p>
<p>"Environmental Impact Assessment" in relation to an application to which scoping must be applied, means the process of collecting, organizing, analysing, interpreting and communicating information that is relevant to the consideration of that application.</p>
<p>"Environment" The environment has been defined as "The external circumstances, conditions and objects that affect the existence and development of an individual, organism or group". These circumstances include biophysical, social, economic, historical, cultural and political aspects.</p>
<p>"Environmental Assessment Practitioner" Person or company, independent of the applicant (developer), that manages the environmental assessment process of a proposed project on behalf of the applicant.</p>
<p>"Environmental Impact Report" In-depth assessment of impacts associated with a proposed development. This forms the second phase of an Environmental Impact Assessment and follows on from the Scoping Report.</p>
<p>"Environmental Management Programme" means a programme presenting management and mitigation measures in relation to identified or specified activities envisaged in Chapter 5 of the National Environmental Management Act and described in regulation 34.</p>
<p>"Heritage resources" This means any place or object of cultural significance. It also includes archaeological resources.</p>

"Interested and Affected Party" means an interested and affected party contemplated in section 24(4) (d) of the Act, and which in terms of that section includes -

(a) Any person, group of persons or organization interested in or affected by an activity; and

(b) Any organ of state that may have jurisdiction over any aspect of the activity.

"Public Participation Process" means a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters; *"Registered Interested and Affected Party", in relation to an application, means an interested and affected party whose name is recorded in the register opened for that application in terms of regulation 42.*

"Species of Conservation Concern" All those species included in the categories of endangered, vulnerable or rare, as defined by the International Union for the Conservation of Nature and Natural Resources.

"Significant impact" means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.

"The Act" means the National Environmental Management: Waste Act, 1998 (Act No.59 of 2008).

ABBREVIATIONS

CAM:	Cape Agulhas Municipality
CBA:	Critical Biodiversity Area
DEA:	Department of Environmental Affairs
DEA&DP	Department of Environmental Affairs and Development Planning
DWA:	Department of Water Affairs
EAP:	Environmental Assessment Practitioner
EMP:	Environmental Management Programme
EIA:	Environmental Impact Assessment
EIR:	Environmental Impact Report
ESA:	Ecological Support Area
FSR:	Final Scoping Report
HIA:	Heritage Impact Assessment
I&APs:	Interested and Affected Parties
IDP:	Integrated Development Plan
LUPO:	Land Use Planning Ordinance (Ordinance 15 of 1985)
MAR:	Mean Annual Rainfall
NEMA:	National Environmental Management Act No. 107 of 1998
NEM:WA:	National Environmental Management: Waste Act No. 59 of 2008
NWA:	National Water Act No. 36 of 1998
PPP:	Public Participation Process
PHRA:	Provincial Heritage Resources Agency
SACNASP:	South African Council for Natural Scientific Professions
SANBI:	South African National Biodiversity Institute
SDF:	Spatial Development Framework
ToR:	Terms of Reference

SCOPING REPORT

SECTION 1: INTRODUCTION

This report has been prepared in compliance with the requirements of the following legislation:

- The National Environmental Management Act, 1998 (Act No. 107 of 1998) ["NEMA"];
- The Environmental Impact Assessment ("EIA") Regulations contained in Government Notice (GN) No. R982 of 2014 as promulgated in terms of the NEMA ["EIA Regulations"] as amended up to and including GN 326 in GG 40772 of 07 April 2017.

The purpose of these Regulations is to regulate procedures and set criteria as contemplated in Chapter 5 of the Act to enable the submission, processing, consideration and decision making regarding applications for environmental authorization of activities and matters pertaining thereto.

1.1 APPLICATION FOR ENVIRONMENTAL AUTHORIZATION AND PROPOSED PROJECT DESCRIPTION

The Swellendam Municipality proposes to establish a mixed use housing development on the Remaining Extent of Erf 1 at Swellendam.

The Swellendam Municipality proposes a subsidised housing project on a Remainder of Erf 1 at Swellendam, comprising of 950 residential erven. As well as 4 erven for community facilities, 2 erven for business, 3 for mixed use and 10 erven for public open space. Associated internal roads and associated services infrastructure.

Offsite upgrades to the bulk storm water infrastructure will be required. This will include upgrades to attenuation dams 4 and 5 as the proposed development's runoff will have a direct influence on the capacity. These attenuation dams are situated in a degraded non-perennial drainage line which runs to the west of the proposed site. Additional bulk water distribution, sewer reticulation and external road networks may need to be upgraded to accommodate the proposed development.

The proposed development site is an unused vacant area of ± 25.3ha which is located south east of the town Swellendam's southern residential area. It consists of an undulating area in-between the residential area and the railway line of Swellendam South.

Site H is an undulating area in-between the residential area and the railway line of Swellendam South. The area has been completely transformed presumably by previous cultivation activities that took place on the site (exact date of when the area was last ploughed and cultivated is unknown). Little to mainly no indigenous vegetation species have returned to this transformed area and this area therefore has low conservation value and low botanical sensitivity. No evidence of surface water or aquatic vegetation species indicating the presence of a wetland area is present on the site.

The site falls within the general area that supports Swellendam Silcrete Fynbos, according to the new vegetation map of South Africa (Mucina & Rutherford 2006). This vegetation type is listed as a *Vulnerable* vegetation type in the South African National Spatial Biodiversity Assessment (Rouget et al 2004). It must be noted that the Western Cape Biodiversity Spatial Plan 2017 Ecosystem Threat Status reflects the current threat status of ecosystems in the Western Cape Province. Swellendam Silcrete Fynbos changed from Vulnerable to Endangered in 2016.

Little to mainly no indigenous vegetation species is present within the proposed development site. The proposed development site has been identified as an Ecological Support Area (“ESA”).

Table 1: Listed activities identified are as follows:

Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 1 (GN No. 327)	Describe the portion of the proposed project to which the applicable listed activity relates.
9	<p>The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water-</p> <p>(i) with an internal diameter of 0,36 metres or more; or</p> <p>(ii) with a peak throughput of 120 litres per second or more;</p> <p>excluding where-</p> <p>(a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve; or</p> <p>(b) where such development will occur within an urban area.</p>	Infrastructure for the associated housing development.
10	<p>The development and related operation of infrastructure exceeding 1000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes –</p> <p>(i) with an internal diameter of 0,36 metres or more; or</p> <p>(ii) with a peak throughput of 120 litres per second or more;</p> <p>excluding where-</p> <p>(a) such infrastructure is for bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve; or</p> <p>(b) where such development will occur within an urban area.</p>	Bulk transportation of sewage infrastructure for the associated housing development.
12	<p>The development of-</p> <p>(i) canals exceeding 100 square metres in size;</p> <p>(ii) channels exceeding 100 square metres in size;</p> <p>(iii) bridges exceeding 100 square metres in size;</p> <p>(iv) dams, where the dam, including infrastructure and water surface area, exceeds 100 square metres in size;</p> <p>(v) weirs, where the weir, including infrastructure and water surface area, exceeds 100 square metres in size;</p>	Road crossing watercourse at Theunissen Street.

	<p>(vi) bulk storm water outlet structures exceeding 100 square metres in size; (vii) marinas exceeding 100 square metres in size; (viii) jetties exceeding 100 square metres in size; (ix) slipways exceeding 100 square metres in size; (x) buildings exceeding 100 square metres in size; (xi) boardwalks exceeding 100 square metres in size; or (xii) infrastructure or structures with a physical footprint of 100 square metres or more;</p> <p>where such development occurs-</p> <p>(a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; - excluding-</p> <p>(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such development occurs within an urban area; or (ee) where such development occurs within existing roads or road reserves.</p>	
19	<p>The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from-</p> <p>(i) a watercourse; (ii) the seashore; or (iii) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater</p> <p>but excluding where such infilling, depositing, dredging, excavation, removal or moving-</p> <p>(a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; or (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies.</p>	Road crossing at Theunissen Street. Upgrading of dams 4 and 5.
24	<p>The development of-</p> <p>(i) a road for which an environmental authorisation was obtained for the route</p>	Development of internal roads associated with the proposed development.

	determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or (ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres; but excluding- (a) roads which are identified and included in activity 27 in Listing Notice 2 of 2014; or (b) roads where the entire road falls within an urban area.	
Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 3 (GN No. 325)	Describe the portion of the proposed project to which the applicable listed activity relates.
4	The development of a road wider than 4 metres with a reserve less than 13,5 metres. (f) In Western Cape: i. Areas outside urban areas; (aa) Areas containing indigenous vegetation;	Construction of a road outside an urban area containing indigenous vegetation.
18	The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre. (f) In Western Cape: All areas outside urban areas: (aa) Areas containing indigenous vegetation;	The lengthening of a road.
Activity No(s):	Provide the relevant Scoping and EIR Activity(ies) as set out in Listing Notice 2 (GN No. 324)	Describe the portion of the proposed project to which the applicable listed activity relates.
15	The clearance of an area of 20 hectares or more of indigenous vegetation , except where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	Clearance of the ±25.3ha proposed development site.

1.2 BACKGROUND AND PURPOSE OF THE SCOPING REPORT

In accordance with the requirements of Regulation 3 of GN R25, also having considered the provisions of NEMA, it was determined that a scoping process be undertaken.

This report fulfils the requirement of the EIA Regulations for the documentation in the scoping phase. The structure of this report is based on part 3 of GN R.326, of the EIA Regulations as amended, which clearly specifies the required content of a scoping report.

1.3 ENVIRONMENTAL ASSESSMENT PRACTITIONER

1.3.1 Role and Competence of the EAP

The role of the Environmental Assessment Practitioner (“EAP”) is to manage the application for an Environmental Authorization on behalf of the applicant. The EAP must adhere to all relevant legislation and guidelines, ensuring that the reports contain all the necessary and relevant information required by the competent authority to make

a decision. It is the responsibility of the EAP to perform all work relating to the application in an objective, appropriate and responsible manner. The EAP must comply with Regulation 13 of the EIA Regulations R982 of 2014 as amended by GN 326, detailing the requirements for an EAP.

Mrs Jessica Le Roux of Eco Impact Legal Consulting (Pty) Ltd (referred to hereafter as “Eco Impact”) has been appointed as the independent EAP for this project as required in terms of the regulations.

Eco Impact is a Cape Town based consultancy with environmental, health and safety legal expertise. Eco Impact is suited to assist clients with obtaining and managing waste license applications, environmental authorisations, NEMA Section 24G applications, water use authorisation applications, biodiversity assessments and with ISO 14001 and ISO 45001 related issues.

1.3.2 Professional Team

The following are the project team members:

- Jessica Le Roux - Environmental Assessment Practitioner (author); and
- Consulting Engineer
- Town and Regional Planner
- Municipal Contact Person
- Specialists

Jessica has a BSc (Honours) in Environmental and Geographical Science in 2011 from the University of Cape Town and subsequently obtained her MSc in Zoology in 2013.

Jessica has trained as an Environmental Assessment Practitioner since 2013 and has been involved in the compilation, coordination and management of Basic Assessment Reports, Environmental Impact Assessments, Environmental Management Programmes, Waste Licence Applications, Water Use Licence Applications and Baseline Biodiversity Surveys for numerous clients.

1.3.3 Terms of Reference

Eco Impact is appointed as environmental consultant with the following Terms of Reference:

- Undertake an environmental evaluation of the applicable options and sites to get an understanding of biophysical characteristics and natural processes prevailing and to assess the proposed development proposals in terms of environmental characteristics by assessing the constraints and opportunities of the situation;
- Identify any anticipated impacts that might be considered at this early stage of the EIA process to suggest any specialist studies that may be required to provide additional information on the significance of these impacts and mitigation that may be necessary to reduce negative impacts and enhance positive impacts of the proposed development;
- Co-ordinate the early start of the recommended specialist studies with the view

to informing the compilation of the initial Environmental Opportunities and Constraints;

- In association with the specialist consultants, assist the appointed consulting Engineers with the development of the optimum Site Development that will have the least impact on the both the biophysical and social environments. It is understood that as more detailed information is provided by the various specialist studies and I&APs, that the Environmental Opportunities and Constraints may need revision, and similarly, the SDP may need to be adapted;
- Undertake the applicable Scoping and EIA Process in terms of the Regulations of the NEMA to provide the relevant information for the DEA&DP, and any other government officials, to be able to make informed decisions and to issue an Environmental Authorisation for the proposed development;
- As part of the Scoping and EIA Process, a comprehensive public participation process must be entered into. This process is to provide all the relevant information to the public, NGO's, CBO's and government officials, and to allow for adequate time for the public to respond to such information. The issues as raised by I&AP's must be taken into consideration in assessing the impacts of the proposed development and, making amendments to the proposed development;
- Assess alternative development options for the property in order to reduce any significant impacts that may arise. Prescribe the necessary mitigation to enhance any positive impacts and reduce any negative impacts that may arise as a result of the proposed development must be suggested;
- Facilitate any additional specialist studies that may be required to assist with the planning and future management of the proposed development; and
- Make the necessary environmental management recommendations (mitigation/ enhancement) for the construction and the operational phases of the proposed development, to ensure a sustainable development in the future.

1.4 LEGISLATIVE ASPECTS

1.4.1 Legislation

The following legislation is applicable to this project, and has been considered in the preparation of the Scoping Report. Allocation of applicable environmental legislation has been done with the legislation as at May 2018:

Table 2: Applicable legislation

Environmental Legislation	Description of Activity
National Environmental Management Act, 1998 (Act No. 107 of 1998) and relevant regulations	Various general activities as described below, including but not limited to the control of emergency incidents and the care and remediation of environmental damage.
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and relevant regulations	The requirements for, waste removal and transportation, waste disposal, littering and the requirements for an integrated waste management plan

Environmental Legislation	Description of Activity
National Water Act, 1998 (Act No. 36 of 1998) and relevant regulations	The use of water, including any water purification and effluent treatment facilities, dams and irrigation systems.
Atmospheric Pollution Prevention Act, 45 Of 1965 Regulations Only	Activities that result in emissions of dust, vehicle emissions and noxious or offensive gasses.
Conservation Of Agricultural Resources Act, 43 Of 1983	Weeds and the tolerance thereof, which applies in both urban and other areas.
National Environmental Management: Air Quality Act, 39 Of 2004 And Relevant Regulations	Activities that may affect the air quality on site and the environment surrounding it.
Water Services Act, 108 Of 1997 And Relevant Regulations	The use of water and sanitation services of a water services provider.
Constitution of the Republic of South Africa, 1996	General application to individual rights of all on and adjacent to the Sites
Fencing Act, 31 of 1963	The erection and maintenance of fences.
National Building Regulations and Building Standards Act 103 of 1977 and relevant regulations	The erection of new buildings.
National Heritage Resources Act 25 of 1999	Development of the site and dealing with graves and burial sites and any structures older than 60 years.
National Environmental Management: Biodiversity Act 10 of 2004	The management and conservation of biological diversity and the sustainable use of indigenous biological resources.
National Veld and Forest Fire Act 101 of 1998	Any activities that could result in the start of veld fires.
Overberg District Municipality Air Quality Management By-Law	Activities that may affect the air quality on site and the environment surrounding it.
Overberg District Municipality By-Law Relating To Community Fire Safety	Any activities that could result in the start of fires.
Overberg District Municipality Municipal Health By-Law	Activities that may cause a nuisance.
Swellendam Local Municipality Air Pollution Control By-Law	Activities that may affect the air quality on site and the environment surrounding it.
Swellendam Local Municipality By-Law For The Prevention And Suppression Of Nuisances	Activities that may cause a nuisance.
Swellendam Local Municipality Electricity Supply By-Law	Provision of services and supply of electricity.

Environmental Legislation	Description of Activity
Swellendam Local Municipality By-Law Relating To Water Supply, Sanitation Services And Industrial Effluent	Provision of infrastructure and services and supply of water and sanitation services,
Swellendam Local Municipality By-Law Relating To The Prevention Of Public Nuisances	Activities that may cause a nuisance.
Swellendam Local Municipality Storm Water Management By-Laws	Storm water management requirements and associated infrastructure.
Swellendam Local Municipality Refuse Removal, Refuse Dumps And Solid Waste Disposal By-Laws	The requirements for, waste removal and transportation, waste disposal, littering.

1.4.2 Policies

An environmental policy is derived from the guiding principle whereby an organization first defines the scope of its commitment to the environment. The policy is a public document that communicates the organization's overall approach to managing its interaction with the environment.

Various components of Environmental Management are strongly influenced by the environmental policies in terms of their scope and level of resource allocation. As a rule, objectives and targets are set to achieve compliance with the environmental policy, and overall environmental performance is evaluated against the organization's stated intent reflecting a level of commitment.

Policy must meet the following criteria:

- It must be relevant to the nature of an organization's activities, and the specific environmental aspects associated with those activities;
- It must consider specific local environmental conditions;
- It must consider relevant environmental legislation;
- It must define and formulate the organization's fundamental approach to environmental management; and
- It must set a precedent for communication and liaison with all stakeholders.

Policies considered in the compilation of this document include:

- National Spatial Development Framework;
- Provincial Spatial Development Framework for the Western Cape;
- Swellendam Spatial Development Framework; and
- Framework for a conservation plan for the Cape Floristic Region.

1.4.3 Guidelines

The following guidelines are applicable to this project, and have been considered in the preparation of the Scoping Report:

- Guideline on Public Participation;
- Information of Generic Terms of Reference and Project Schedules;
- Interpretation guidelines under NEMA;
- Circular EADP 0028/2014: One Environmental Management System;
- Guideline for Environmental Management Plans (June 2005);
- EIA Guideline and Information Document Series (March 2013).

1.5 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

Additional information must be provided with respect to associated infrastructure and services for the proposed development. Storm Water Management Plan must be compiled during the environmental application process and appended to the Environmental Impact Assessment Report ("EIR"). Confirmation of sufficient capacity to provide the necessary services for the proposed development specifically with respect to sewage and effluent disposal, waste management, storm water management, water and electricity supply is required. Proof of submission of such a WUL application to the BGCMA, along with the WULA assessment information, must be provided to the Department with the EIR submitted for decision-making. A Maintenance Management Plan ("MMP") should form a component of the EMP to be incorporated into the Plan of Study for the Environmental Impact Assessment ("EIA") phase.

SECTION 2: DESCRIPTION OF THE PROPERTY

2.1 PROPERTY DESCRIPTION AND LOCATION

The proposed development site consists of vacant land adjacent to existing Swellendam East residential areas and is approximately 25.3ha in total.

Property Details: Remaining Extent of Erf 1

119.7918ha

C07300080000000100000

Site H - Latitude (S) 34° 02' 00.14"

Longitude (E) 20° 27' 11.70"

2.2 GENERAL CHARACTERISTICS AND LAND USE

The site is currently not in use except for some livestock i.e. goats occasionally grazing on the site.

The surrounding land use:

Site H- North- Railway line, N2 national road, Swellendam residential area

East- Railway line, sand mine, previously cultivated land

South- Indigenous vegetation area,

West- Swellendam east residential area

2.3 SPECIFIC CHARACTERISTICS

2.3.1. Biophysical Elements

2.3.1.1 Climate

Swellendam normally receives about 462mm of rain per year, with rainfall occurring throughout the year. The chart below (lower left) shows the average rainfall values for Swellendam per month. It receives the lowest rainfall (23mm) in December and the highest (48mm) in August. The monthly distribution of average daily maximum temperatures (centre chart below) shows that the average midday temperatures for Swellendam range from 17.1°C in July to 27.5°C in January. The region is the coldest during July when the mercury drops to 5°C on average during the night.

2.3.1.2 Topography

The area is characterised by an undulating landscape with associated moderate to steep slopes. A transformed and degraded non-perennial drainage lines is present to the west of Site H.

2.3.1.3 Geology and Geohydrology

The site is underlain by geological formations derived from the Table Mountain group. A prominent geological feature associated with the study area is the occurrence of Silcrete which is an ancient sedimentary rock that has almost entirely eroded during the course of time. It is however a prominent feature of hilltops and undulating plains on the South Coast especially around Swellendam. It is readily identified by the cobbles and pebbles of fine textured rock and also the neutral fine grained substrate that is usually orange-red or even pinkish.

2.3.1.4 Surface Water Features

A degraded and transformed non-perennial drainage line borders site H on the western, northern and eastern boundaries of the proposed development site.

2.3.1.5 Flora

As according to Mucina and Rutherford (2006) the type of natural vegetation originally occurring both sites are classified as Swellendam Silcrete Fynbos (*Vulnerable*).

It must be noted that the Western Cape Biodiversity Spatial Plan 2017 Ecosystem Threat Status reflects the current threat status of ecosystems in the Western Cape Province. Swellendam Silcrete Fynbos changed from Vulnerable to Endangered in 2016.

Approximately 4% of the ecosystem is protected in the Bontebok National Park adjacent to Swellendam.

Site H – The proposed development area of 25.3 ha has been completely transformed presumably by previous cultivation activities that took place on the site (exact date of

when the area was last ploughed and cultivated is unknown) and supports no intact natural habitat, and very low to mainly non-existent indigenous plant diversity. The species present include typical widespread agricultural weeds and grasses, and a few indigenous resilient herbs and grasses. Little to mainly no indigenous vegetation species have returned to this transformed area and this area therefore has low conservation value and low botanical sensitivity. According to CapeNature, 2017 WCBSA the whole extent of Site H is classified as ESA1: terrestrial. ESA 1 are Ecological Support Areas that are likely to be functional (natural, near-natural or moderately degraded condition).

The area where the Attenuation dams are to be upgraded are classified as ESA 2: restore from other land use. ESA 2 are ESAs that are likely severely degraded or have no natural cover remaining and therefore require restoration where feasible.

2.3.1.6 Fauna

No known rare or special fauna species were observed or are known to occur or breed on the site.

2.3.2. Historical and Archaeological Characteristics

There is no known significant heritage or cultural attributes on the site. A Notice of Intent to Develop has been completed and submitted to Heritage Western Cape (“HWC”). HWC confirmed that no Heritage Impact Assessment is required. Refer to D for proof thereof.

2.3.3. Socio-Economic Elements

Introduction

As per the Swellendam Municipality Integrated Development Plan (2016-2017) the Swellendam Municipality has been classified as a Category B municipality, and was proclaimed as a local municipality with a mayoral executive system combined with a ward participatory system. The Swellendam Municipality is deemed to be a low capacity municipality, and shares executive and legislative authority with the Overberg District Municipality. The municipal area is demarcated into five wards.

Swellendam, which is situated in the Overberg District, is well known for its location at the foot of the Langeberg mountain range and is seen as the gateway between the Overberg and the Eden Districts. The Swellendam Municipal area is the second largest municipal area in the Overberg region and covers a geographical area of 3001.091 km². The greater Swellendam Municipal area comprises of the town of Swellendam and the villages of Barrydale, Suurbraak, Malagas, Buffeljagsrivier, Wydgeleë (Ouplaas), Akkerboom (Op de Tradouw), Infanta and Stormsvlei. Swellendam is linked with other urban and rural areas mainly through the N2 National Road. The area is also served with the main railway line which links Cape Town with the Garden Route. The R324 links Swellendam with Barrydale through the well-known Tradouw Pass. The R62, a road which has now also become a well-known tourist route, links Barrydale with Montagu and Oudtshoorn.

The R60 links Swellendam with towns like Ashton, Montagu and Robertson and forms an important link between the N1 and N2 tourism routes. The towns of Swellendam and Suurbraak have a rich historical and cultural heritage. In Swellendam many old buildings dating back to the 18th century can be found. Suurbraak is an old mission station near the foot of the Tradouw Pass and its origin dates back to 1812. The climate for the Swellendam area is warm during the summers with summer rains and very wet winters. Rainfall is spread over the year and ranges between 55% in winter and 45% in summer.

The 2015 socio-economic impact assessment take into account the main priorities and noted that there are 100 per cent access to all minimum basic services within the municipal area. This contradicts with Quantec and Stats SA data. Note that the discrepancy may be explained by the fact that the Municipality does not provide basic services to farms which are taken into account within Census and Quantec data. Service delivery numbers within the 2015/16 Review, also do not correspond with the 100 per cent basic service delivery.

Population

Of the four local municipalities within the Overberg District, Swellendam has the second smallest population which is estimated at 37 531 in 2015. This total gradually increases across the 2015/16 MTREF years and is projected to reach 39 449 by 2020. This total equates to average annual growth of 1.0 per cent and a 5.1 per cent increase from the 2015 base estimate.

The youth participate in local training programmes / short term employment opportunities / internship which the Municipality provide through intergovernmental programs such as EPWP / Community Work Program (CWP) / Thusong Outreach Programs / Internal Auditors and the Comprehensive Rural Development Program. The Department Public Works and the Municipality work closely together to add value to the quality of life in our community and address the high levels of poverty, improve the skills of the youth in order to excess the work environment. The Department also capacitated the youth in the Swellendam area with learners drivers licence. Temporary jobs and training for the youth were also created through Swellendam Tourism Organisation and NGO's / CBO's. The recycling project will also create jobs to women amd youth in the area.

The gender breakdown was relatively equal between males (50.52%) and females (49.48%), while the breakdown between adults and children was 39.4% children and 60.6% adults. The average age was 27.37 years with the oldest recorded individual being 98 years old.

The total number of households in the Swellendam Municipality was estimated at 11 118 in 2015 growing from 10 539 households in 2011. The number of households therefore increased by 579 at an annual average growth rate of 1.3 per cent.

Education

The literacy rate in Swellendam was recorded at 74.2 per cent in 2011 which is much lower than the average literacy rate of the Western Cape at 87.2 per cent. According to the Annual Survey of Public and Independent Schools (ASS) done by the WCED in 2014, learner enrolment in Swellendam has decreased slightly from 5 771 in 2013 to

5 652 in 2014. This might be due to the fact that learner enrolment in 2013 included learners with special education needs. The average school dropout rate in Swellendam was relatively low (compared to its fellow municipalities), recorded at 34.7 per cent in 2012. The dropout rate measured amongst Grade 10 learners of 2013 and Grade 12 learners at the start of 2015 was 22.0 per cent. This implies that one in every five Grade 10 learners in Swellendam Municipality did not reach Grade 12 by 2015, having either dropped out, failed or left the Province. The average learner-teacher ratio for Swellendam has increased between 2012 and 2014 from 27.6 per cent to 29.3 per cent. Swellendam Municipality had 19 schools in 2014 which had to accommodate 5 652 learners. The proportion of no fee schools has increased slightly from 78.9 per cent in 2012 to 79.0 per cent in 2014. The proportion of no fee schools is still high indicating that, given the tough economic climate, a large proportion of parents are unable to pay their school fees. In an effort to alleviate some of the funding challenges the Western Cape Department of Education thus offered certain fee-paying schools as no fee schools. The Overberg District municipalities all show similar trends of high and increasing proportions of no fee schools. The 2014 matric results for Swellendam increased from 86.9 per cent in 2013 to 88.2 per cent in 2014. This is a positive result compared to other municipalities within the Western Cape whose matric pass rates dropped due to the stricter assessments and marking criteria used in the 2014 examinations. Swellendam also outperformed the District matric pass rate of 88.1 per cent in 2014.

Health

The Overberg District has a range of primary healthcare facilities which includes 17 fixed clinics, 23 mobile/satellite clinics, 2 community day centres and 4 district hospitals. Of these facilities, 5 fixed clinics, 3 mobile/satellite clinics and 1 district hospital are situated within Swellendam Municipality. Due to rural distances between towns and health facilities being much greater than in the metropole, combined with the relatively lower population per square kilometre in rural areas, ambulance coverage is greater in rural areas in order to maintain adequate coverage for rural communities. Swellendam has 1.02 operational ambulances per 100 000 population which is greater than the District average of 0.86.

At the end of March 2013, the Province highlighted that anti-retroviral treatment (ART) was provided to over 100 000 persons in the Province, 4 907 of whom were in the Overberg and 424 in the Swellendam municipal area. By the end of March 2015, Swellendam's patient load had increased to 619. That is an increase of 46.0 per cent in patients, administered from 5 treatment sites. In addition to improving the quality of life of the patient, anti-retroviral treatment to mothers both before and at birth, also decreases the chances that infants will contract HIV from their mothers. The most recent information for Swellendam indicates there were no mother-to-child transmission which is below the 1.3 per cent District transmission rate as well as the medium term annual target for 2015/16 and 2016/17.

The number of TB patients in the Overberg District reached 2 120 in 2014/15, treated at 43 clinics or treatment sites. In the Swellendam municipal area the patient load has shown a decrease in recent years. Most recent information shows a patient load of 257 with treatment administered from 9 clinics or treatment sites. Swellendam Municipality also participated in the National TB Awareness Program on the 19 March 2017. The local SANTA branch and the Department of Health coordinated the

program. The Municipality internally make provision for quarterly wellness awareness programs. TB and HIV AIDS tests were very well attended by the officials last year.

Community Based Services

Community Based Services (CBS) in the Western Cape are provided by non-profit organisations (NPOs). Home CBS does not replace the family as the primary caregiver; it is meant to be a complementary and supportive service to the family to prevent 'burn-out' for family caregivers who care for sick relatives. The total number of NPO appointed carers in Overberg during 2014/15 was 244. On average, each carer carried out an average of 191 monthly visits. Within Swellendam Municipality, the average number of monthly visits for the 35 carers was the lowest in the District at 168. The total number of NPO appointed carers in Overberg during 2014/15 was 244. On average, each carer carried out an average of 191 monthly visits. Within Swellendam Municipality, the average number of monthly visits for the 35 carers was the lowest in the District at 168.

Poverty

In an effort to eliminate poverty and reduce inequality, the National Development Plan has set the objective of having zero households earn less than R418 per month by 2030. As per figure 5, Swellendam Municipality was in 2011 still behind this target with approximately 9.2 of its 10 539 households earning less than R400 a month. Lower levels of household income increases indigent dependency on municipal support. Municipal resources are therefore strained in an effort to provide free basic services.

Per capita income in the Swellendam Municipality is the second lowest among the local municipalities in the Overberg region largely as a result of its small GDP size when compared to the other municipalities. Per capita income in Swellendam only increased by 2.1 per cent from R27 212 in 2011 to R27 785 in 2013 which is slower than the District average of 2.7 per cent. It is thus clear that the Municipality needs to make significant progress if it is to achieve the 2030 NDP target of R110 000 per person, per annum.

Safety and Security

The categories of crime pertaining to residential burglaries and drug-related crime are dominant within the Swellendam municipal area. Reported drug-related crimes dropped slightly in 2014/15 but that of burglaries at residential premises continued on its upward trend since 2012/13. The number of murders and driving under the influence of alcohol or drugs has increased in 2014/15 whilst sexual offences appear to have declined. Overall all crimes except sexual offences have increased from their 2005/06 numbers.

Drug-related crimes has a severe negative impact on human development by degrading the and the economy quality of life as it infiltrates all aspects of society including families, health, the work environment. Swellendam has the highest incidence of such crimes in the District at 1 898 per 100 000. Given its regular occurrence and the psychological impact on victims, residential burglaries are an obstinate concern in South Africa. The Overberg District is no exception, with residential burglaries being the second most prominent criminal offence among all local municipalities at an average of 1 225 occurrences per 100 000. Swellendam is

slightly less affected by this crime, impacting on 892 persons per 100 000 - the second highest incidence rate in the District.

Basic Services

Water services- The upper reaches of the Klippe River is the main water source for the town of Swellendam. The water source (raw water) for the town of Swellendam is adequate and can accommodate future growth. Water is extracted from the source via a weir into a 450 mm diameter pipe, which is routed to a distribution chamber, from where it is taken by means of a 250 mm diameter pipe to the Swellendam Water Treatment Plant. Surplus water is routed to three conservancy dams, namely Grootkloof 1, 2 and 3. An additional conservancy dam (Grootkloof 4) need to be constructed in future to accommodate future growth. The water treatment plant has been upgraded as far back as 1991. The water treatment plant is in the planning phase to be upgraded to accommodate future demand and for compliance to Blue Drop Certification. Five reservoirs are available in Swellendam to provide storage capacity for potable water. Water pressure and reticulation capacity has been identified in the Bakenskop area of Swellendam, and a second reservoir need to be constructed for the involved area to address the problems experienced. The water reticulation network is adequate, although the completion of various ring feeds in the network can improve water distribution management. Portions of the water reticulation network for Swellendam has been installed as far back as 1921 and need urgent replacement. Water losses suffered through water pipe breakages will also in the near future results in considerable potable water losses, and will affect income streams.

The upgrading of Swellendam Water Treatment Works (WTW). The project commenced in 2013/14 and was completed in 2014/15. The capacity is now estimated at 7ml/day to stimulate growth and development.

In Swellendam 78.6 per cent of households have access to water within their dwellings and a further 11.7 per cent have access within their yard. The minimum service level is households that have access to water at least 200 m from their dwelling. Approximately 96.1 per cent of households meet this minimum standard. This puts Swellendam close to the NDP target of 100 per cent access to water by 2030. Swellendam still lags behind the provincial (96.6 per cent) and the District (97.3 per cent) average in this regard.

Electricity- The current and projected growth of the town of Swellendam is placing enormous strain on the current electricity network and supply. Considerable upgrading of networks and the bulk provision of electricity are therefore required as a matter of urgency. The completion of an electrical master plan confirmed the constraints and various projects are presently undertaken to address the electrical infrastructural and supply constraints. Capital programs must be put in place to replace old unsafe switchgear and replace old low and high voltage (LV and HV) Lines.

The biggest source of energy in Swellendam is electricity at 94.3 per cent in 2014. This is above the Overberg District average of 90.6 per cent. Swellendam has the lowest proportion of households using paraffin and along with Overstrand, the largest proportion of households using candles as a lighting source in the District.

Refuse removal- The Swellendam Bontebok landfill site is situated 1.2 km south of the N2, adjacent to the Swellengrebel road leading to the Bontebok National Park. The site can be extended towards the railway line in the South West. Refuse transfer stations have been established at Infanta, Matjieskloof, Lemoenfontein and Malagas where waste is collected on a weekly basis and transported to the Bontebok landfill site. House hold refuse from Barrydale, Suurbraak and Buffeljagsrivier is collected on a door to door basis and transported to the Bontebok landfill site.

Within Swellendam only 74.2 per cent of households have their refuse removed at least once a week. Swellendam lags behind the Province and the District in terms of the levels of access to refuse removal by the local authority at least once a week. The biggest concern is the 18.3 per cent of households that have their own refuse dump.

Sanitation- Two sewage treatment plants, namely the Klipperivier Sewage Plant and the N2 Sewage Plant, are presently operated for the town of Swellendam. A decision has been taken by the Municipal Council of Swellendam to close the N2 Sewage Plant and to move the plant to another location. The rationale behind this decision is that the N2 Sewage Plant was located right at the entrance of the town in a very narrow urban corridor created by restricting geographical and topographical characteristics of the surrounding area and was restricting the future urban growth of the town of Swellendam. The existing Klipperivier Sewage Plant, located on the north-west urban edge of the town of Swellendam, is in the final staged of upgrading to replace the capacity lost because of the intended closure of the N2 Sewage Plant. The upgrading of the Klipperivier Sewage Plant also allows for the creation of capacity for the future growth of the town of Swellendam for the next 20 year scenario. The existing sewage works are already exceeding their capacity and the upgrading of sewage disposal capacity is a very high priority. The sewage reticulation system for the town of Swellendam is fairly old and need to be upgraded to provide for sufficient level of service for new developments resulting from the densification of the urban area.

Housing- The overall level of access to formal dwellings is 88.6 per cent in Swellendam and is the highest in the District.

Economic Development and Tourism

Swellendam comprised the smallest share (13 per cent or R1.7 billion) of the District's GDP of R13.3 billion in 2013. The Swellendam municipal area experienced average year-on-year growth of 4.7 per cent from 2005 - 2013, outperforming both the District (4.6%) and the Province (3.4%) in this regard.

Swellendam Municipality experienced strong growth in their construction (8.7 per cent); manufacturing (8.6 per cent) and commercial services (wholesale and retail trade, catering and accommodation and finance, insurance, real estate and business services) (6.0 per cent). The agriculture sector contracted at a rate of 2.9 per cent.

Swellendam Municipality's largest sectors are wholesale and retail trade, catering and accommodation (26 per cent) followed by manufacturing (18 per cent) and Transport, storage and communication (15 per cent). Its smallest sectors are mining and quarrying (0 per cent) and electricity and water (3 per cent). The Swellendam Business Chamber has dissolved, but Railton Business started to liaise, group together, shared

related businesses issues and develop criteria on how private role players / the Municipality and Government could capacitate and assist the SMME's in Railton. Planning and participation even by the municipality was limited because of the absence of a Local Economic Unit and no funding. The Swellendam Tourism sector seems well organised.

Swellendam had the second lowest employment growth of -0.9 per cent over the period and the second smallest GDP growth rate as well in the Overberg region. Swellendam's commercial services sector is the largest employer in the Municipality, employing 41.7 per cent of the Municipality's working population in 2013, followed by the general government and community, social and personal (CSP) services sector and agriculture, which employed 27.8 and 12.8 per cent of the working population respectively. The manufacturing and construction sector was among the Municipality's smallest employers, employing 9.6 and 7.4 per cent of the Municipality's working population. The remaining sectors employed only 0.7 per cent of the working population. Consequent to the negative GDP growth for the Agriculture sector, there have been net job losses in the sector (2 184). Despite the rapid economic growth experienced in the Construction sector, this sector also experienced net job losses of 47. All other sectors registered positive employment creation with Commercial Services experiencing the largest count of net jobs created i.e. 847 jobs. These were however not able to offset the large decline in employment in the Agriculture sector thus the Swellendam experienced 789 net job losses.

2.3.4. Visual Elements

The proposed development will be visible along the N2 national road. The development will however be consistent with the surrounding residential areas and will therefore blend in with the existing residential environment of the town. The proposed structures will be designed in such a manner as to ensure that visual integrity of the area is maintained.

2.3.5. Agricultural Potential

Site H- Although the proposed site hasn't been used for agricultural cultivation for several years now it has the potential to be used for crop cultivation and/or livestock grazing, but it is not viable because the site is isolated and does not form part of a larger agricultural entity as it is surrounded by the railway line, residential area and Bontebok National Park.

2.3.6 Existing Services

2.3.6.1 Electricity

ESKOM already supply electricity to the existing surrounding houses and infrastructure. The new developments and infrastructure will link up with this existing ESKOM network.

2.3.6.2 Roads

The proposed development will have access from the existing roads:

- Theunissen Street
- Aster Avenue
- Laventel Street
- Abelia Street

New internal roads will link to existing road infrastructure.

2.3.6.3 Water and Sewage

The construction of the planned houses will generate sewage and waste water that must be treated and discharged within the existing surrounding municipal sewer system.

Water will be obtained from the existing adjacent municipal water network.

An engineering report will be included in the EIA report, discussing site specific services availability and requirements in more detail.

SECTION 3: NEED AND DESIRABILITY

3.1 NEED AND DESIRABILITY

Access to affordable housing is identified as one of the key priorities in the Municipal IDP. Shelter is a basic need. Housing must provide shelter, but this alone is not enough. It is a key element in structuring the urban environment. Housing affects the form and performance of settlements across scales. Settlement should function as one whole workable system of integrated networks and hierarchical systems of interconnecting nodes.

Municipalities are responsible for housing delivery within their area of jurisdiction. According to the Swellendam Municipality the housing waiting list for Swellendam is 2193 (as at 2018).

3.2 OTHER REQUIREMENTS

3.2.1 Integrated Development Plan and Spatial Development Framework

According to the Swellendam Municipality the housing waiting list for Swellendam is 2193 (as at 2018). The proposed development site (Site H) has been earmarked for residential development according to the 2017 municipal Spatial Development Framework.

3.2.2 Urban Edge and Planning Guidelines

The proposed development site (Site H) has been earmarked for residential development within the urban edge according to the 2017 municipal Spatial Development Framework.

SECTION 4: ALTERNATIVES ASSESSMENT

Regulation 21(3) of EIA Regulations R326 of 2014 requires that the Scoping Report include a description of any feasible and reasonable alternatives that have been identified. Regulation 1 of GN R326 defines alternatives as follows:

“alternatives”, in relation to a proposed activity, means different means of meeting 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;*
- and includes the option of not implementing the activity;*

Refer to the Plan of Study in Section 7 below for a description of the alternatives assessment methodology. The alternatives considered for this project are described below.

4.1 PROPERTY AND LOCATION/SITE ALTERNATIVES

Three site alternatives were considered for the subsidised housing development:

- Site E (Remaining Extent of Erf 1) total area of ± 20 ha originally surveyed for the proposed development.
- Site H (Remaining Extent of Erf 1) total area of ± 50 ha originally surveyed for the proposed development.
- Site I (Remaining Extent of Erf 157) total area of ± 8ha originally surveyed for the proposed development.

Refer to Map 1 below which indicates the location and extent of the location alternatives considered.

Site E – is a small hill/koppie with steep gradients southeast of the primary school and residential areas of Swellendam South, 20ha were originally assessed for the proposed development.

Negative attributes of the 20ha site in terms of suitability for housing development:

- The site is located on a hill/koppie with steep gradients.
- Approximately 80% of the 20ha site is characterised by indigenous vegetation in a moderate to good condition with high conservation value and high botanical sensitivity which has been classified as CBA2 (Critical Biodiversity Area: Degraded) in the 2017 Western Cape Biodiversity Spatial Plan.
- Outside the urban edge.

Positive attributes of the site in terms of suitability for housing development:

- Existing adjacent residential developments, which will also allow immediate access and connection to services infrastructure.
- A small area has been transformed and encroached by alien tree vegetation.

Site H – is an undulating area in-between the residential area and the railway line of Swellendam South, 50ha were originally assessed for the proposed development, but following specialist input, only 25.3 ha are proposed to be developed upon.

Negative attributes of the site in terms of suitability for housing development:

- ± 8ha of the 50ha site contains indigenous vegetation in a moderate to good condition with a medium conservation value and medium botanical sensitivity.

Positive attributes of the site in terms of suitability for housing development:

- Existing adjacent residential developments, which will also allow immediate access and connection to services infrastructure.
- Located within the municipal Urban Edge of the Spatial Development Framework/Plan.
- At least ±42ha of the ±50ha area surveyed have been completely transformed presumably by previous cultivation activities that took place on the site. Little to mainly no indigenous vegetation species have returned to this 42ha transformed area and this area therefore has low conservation value and low botanical sensitivity. The proposed 25.3ha development area is located within the transformed area.
- No wetland characteristics are present on the proposed development site.

Site I – is a flat lying area in-between the residential area and the railway adjacent to the national N2 road of Swellendam south, 8ha were originally assessed for the proposed development, but currently no development is proposed on Site I.

Negative attributes of the site in terms of suitability for housing development:

- Narrow site along the N2 with infrastructure restrictions.
- Classified CBA2 and ESA 1. ESA1 - ESAs that are likely to be functional (natural, near-natural or moderately degraded condition).

Positive attributes of the site in terms of suitability for housing development:

- Existing adjacent residential developments, which will also allow immediate access and connection to services infrastructure.
- Located within the municipal Urban Edge of the Spatial Development Framework/Plan.
- The ± 8ha area surveyed has been completely transformed presumably by previous land clearing which took place for cultivation and urban developments and is covered by grass and weed species usually associated with transformed cultivated or cleared land.

For further details, maps & photos of Site E and I see the EBS in Appendix F.



4.2 ACTIVITY ALTERNATIVES

Alternative land uses, i.e. land uses that are not consistent with the relevant IDP, are not being considered, as this would be contrary to the Municipalities IDP and will not provide for the community needs.

4.3 DESIGN OR LAYOUT ALTERNATIVES

A number of layout alternative have been considered. Two are detailed below:

LA1 – This entails the development of ±27.08ha:
Site H and E:

Land Use	No. of Erven
Residential	961
GAP Residential	86
Business	2
Community Facility	4
Mixed Use	3
Open Space	12
Roads, Infrastructure and attenuation dams	

LA 2 – This entails the development of 25.3ha - PREFERRED
Site H ONLY:

Land Use	No. of Erven
Residential	950
GAP Residential	0
Business	2
Community Facility	4
Mixed Use	3
Open Space	10
Roads, Infrastructure and upgrades to attenuation dams 4 and 5	

4.4 TECHNOLOGY ALTERNATIVES

The energy requirements of the development will be reduced by the introduction of the following energy saving methods, where possible:

1. All units will be provided with energy saving compact fluorescent lamps (CLF's).
2. All electric geysers should be insulated with geyser blankets.
3. All electric geyser thermostats should be set at the most optimal temperature.
4. All fitted appliances should have an energy rating and the most efficient models will be considered.
5. Energy efficient streetlight technology should be used as far as possible to reduce the energy requirements of the streetlight network.

4.5 OPERATIONAL ALTERNATIVES

Once operational, the only activities that will be undertaken are related to maintenance and upkeep of the development and associated infrastructure.

4.6 THE OPTION OF NOT IMPLEMENTING THE ACTIVITY (THE NO-GO OPTION)

The No-Go option will result in the site remaining as it is presently, vacant municipal land. A look at the Need and Desirability input will both indicate popular local support for both the concept and place as manifested in the IDP and Human Settlement Plan for the Swellendam Municipality.

SECTION 5: PUBLIC PARTICIPATION PROCESS

5.1 INTRODUCTION

Public participation is an integral part of the environmental assessment process, and affords potentially interested and affected parties (I&APs) an opportunity to participate in the EIA process, or to comment on any aspect of the development proposals. The public participation process to be undertaken for this project complies with the requirements of the EIA Regulations. The description of the public participation process as included below itemizes the steps and actions undertaken to date and as appropriate at this stage of the project.

5.2 IDENTIFICATION AND REGISTRATION OF KEY DEPARTMENTS AND OTHER I&APS

Liaison with the relevant authorities plays a crucial role in the successful completion of any environmental assessment process. In addition to the DEA&DP, the key departments such as the provincial departments having jurisdiction in respect of any aspect of the project, the local municipality and municipal councillor as well as other potentially affected I&APs, including adjacent property owners and dwellers, were identified.

The parties listed in the table below were identified as potential I&APs to date as per the requirements of the Regulation 42 of R982 of 2014 as amended. A list with complete details of the I&APs is kept by the EAP and will be updated as the project progresses. Refer to Appendix D.

Table 4: Key Departments identified to date

Organisation
1. CapeNature
2. Department of Agriculture
3. Heritage Western Cape
4. Breede Gouritz Catchment Management Agency
5. Swellendam Municipality
6. Overberg District Municipality
7. DEA&DP: Waste Management
8. DEA&DP: Pollution & Chemicals Management
9. Department of Human Settlements

5.3 NOTIFICATION OF I&APS

Potential I&AP's were notified about the project. The notification took place in the following manner (this is in compliance with Regulation 41 of the EIA Regulations, 2014).

- 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 the site where the activity to which the application relates is or is to be undertaken and any alternative site;
- Written notifications sent to potential I&APs inviting them to register and give comments on the proposed development. These notifications were in line with the requirements of Regulation 41 of GN R982 of 2014 as amended; and
- Placing an advertisement in the local newspaper in compliance with Regulation 41(2)(c)(i) of GN R982 of 2014 as amended.

All potential I&APs are afforded the opportunity to register for the project. All registered I&APs will be informed of further activities regarding the project.

5.4 PUBLIC MEETINGS AND WORKSHOPS

No public meetings have been held as of yet. A public participation meeting will be held if requested by any of the registered I&APs and/or key departments.

5.5 AVAILABILITY OF THE SCOPING REPORT

As per the requirements of Regulation 43 of GN R982 of 2014 as amended, the pre-application draft Scoping Report was made available for a 30-day commenting period.

The report was included for statutory comment with the written notice as sent to the commenting organs of state.

Electronic copies (CDs) were made available to any I&AP. Proof of delivery and document placement is attached in Appendix D.

5.6 COMMENTS AND REPONSES DURING THE SCOPING PHASE

Comments received will be responded to as per the requirements of Regulation 44 of GN R982 of 2014 as amended. The comments and response report as well as all comments received are attached in Appendix D.

5.7 PUBLIC PARTICIPATION DURING THE EIA PHASE

Public participation during the EIA phase involves submitting the draft EIR to the registered I&AP's and Key Departments for a 30 day period to discuss the findings of the report. Once all comments have been received, the EIR will be finalised taking into account the comments.

The final EIR will then be submitted to the DEA&DP for approval. As per the requirements of GN R982 of 2014 as amended, should any additional comments

be received during this stage, these will be submitted to DEA&DP.

5.8 DECISION AND APPEAL PERIOD

Once DEA&DP has reviewed the final EIR and are satisfied that it contains sufficient information to make an informed decision, they will use the information contained within the EIR to determine the environmental acceptability of the applicant's preferred options. A decision on the applications and associated reports will be made by the DEA&DP based on the findings of the EIR.

Following the issuing of the decision, I&APS will be notified. All I&APs will be provided with the opportunity to appeal the decision to the Minister in terms of the NEMA.

SECTION 6: ENVIRONMENTAL ISSUES IDENTIFIED TO DATE

The potentially significant impacts associated with the proposed development have been identified by the EAP. Issues identified by Key Departments and I&APs will be taken into account in the determination of impacts. A detailed impact assessment and environmental impact statement will be provided in the EIA. The assessment will be based on the criteria as set out below in the Plan of Study (PoS).

6.1 CONSTRUCTION PHASE IMPACTS

- Possible impacts on soil where soil disturbances will occur
- Increased erosion risk due to the clearing of land for the proposed development leading to increase in storm water flow
- Freshwater fauna and flora may be affected by the clearing and transformation of watercourses
- Water quality of the downstream water bodies may be affected due to storm water flow from construction site
- Air quality in terms of dust generated by the clearing of land
- Social aspects – smells and aesthetic quality
- Temporary job creation
- Traffic Impacts
- Noise Impacts
- Heritage Impacts
- Visual impacts
- Planning and Services guidelines impacts.
- Biodiversity Impacts such as clearing of or impacts on indigenous vegetation habitat
- Production/generation of construction waste

6.2 OPERATIONAL PHASE IMPACTS

- Erosion risk or surrounding areas due to hardened developed areas
- Hydrological impacts i.e. water quality of the water draining into the drainage line from the development area
- Biodiversity/ecological impacts on adjacent terrestrial indigenous vegetation and drainage line habitat

- Visual impact and aesthetic/sense of place quality
- Social impacts i.e. provision of subsidized housing; impact on income, sales and GGP; noise nuisance impacts; changes in health and social wellbeing; impact on demand for services and amenities etc.

6.3 CLOSURE AND DECOMMISSIONING PHASE IMPACTS

It is not anticipated that decommissioning will occur in the near future. Should decommissioning occur, the expected impacts are similar to those listed in the construction phase above with the additional positive impact of rehabilitating the decommissioned area to a near natural/indigenous state and negative impact of destroying houses and services infrastructure.

SECTION 7: PLAN OF STUDY FOR ENVIRONMENTAL IMPACT ASSESSMENT

7.1 TASKS TO BE UNDERTAKEN

The EIA report is informed by the scoping phase. Should the need for specialist studies be identified, input from specialists will be obtained to further advise on the potential impacts that may occur due to the proposed activities. The specialists will identify opportunities and constraints as associated with the site and the proposed development and provide their input to the concept design.

The following steps will be undertaken as part of the EIA phase:

- Alternatives will be further investigated, in a re-iterative manner, so as to avoid or minimize negative impacts and maximize potential benefits;
- Statements regarding the potential significance of residual impacts, taking into account proposed mitigation measures will be provided in the EIA;
- An Environmental Management Programme (EMP) covering construction, operational and decommissioning phases of the proposed development will be prepared after input from specialists, incorporating recommendations for mitigation, monitoring and evaluation are received;
- A Maintenance Management Plan ("MMP").

7.2 CONSULTATION WITH COMPETENT AUTHORITY

DEA&DP as the Competent Authority regarding the Environmental Authorization application will be consulted throughout the application process.

All documentation (Draft and Final) will be sent to DEA&DP. Communication with DEA&DP will be attached to the documents to be submitted.

7.3 ASSESSMENT OF ENVIRONMENTAL ISSUES AND ALTERNATIVES

The objective of an impact assessment is to find the alternative having the least negative environmental impact, and which best benefits society. The assessment and evaluation of potential impacts associated with the development would thus be undertaken in a re-iterative manner, to optimally inform pro-actively the development proposal. The following methodology for assessing alternatives has been developed and will be used during the application process.

GN R982 of 2014 as amended requires, in part, that the Scoping and EIA Reports include a description of any feasible and reasonable alternatives that have been identified. Regulation 1 of GN R982 of 2014 as amended defines alternatives as follows:

“alternatives”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to –

- (a) the property on which or location where it is proposed to undertake the activity (alternative properties as well as alternative sites on the same property);*
- (b) the type of activity to be undertaken;*
- (c) the design or layout of the activity;*
- (d) the technology to be used in the activity (consideration of such alternatives is to include the option of achieving the same goal by using a different method or process); and*
- (e) the operational aspects of the activity;*

The following additional alternative types (as applicable to this project) have also been suggested for inclusion, where applicable, by both the Department of Environmental Affairs (DEA) and the Department of Environmental Affairs and Development Planning (DEA&DP) in their EIA guidelines and information documents on alternatives. These alternatives are discussed where applicable.

- Demand - when a demand for a certain product or service can be met by some alternative means;
- Input - applicable to applications that may use different raw materials or energy sources in their process;
- Scheduling and Timing - a number of measures might play a part in an overall programme, but the order in which they are scheduled will contribute to the overall effectiveness of the end result; and
- Scale and Magnitude - activities that can be broken down into smaller units and can be undertaken on different scales, each may have a different impact.

These were considered as well.

All the above alternative types, including the no-go option (i.e. the option of not implementing the activity) have been investigated according to the methodology described below.

7.3.1 Alternative determination methodology

Alternatives are described in terms of the various types of alternatives (“alternative types”) as listed above, as well as the proposed and alternative project activity(ies) (“project alternatives”) which includes a combination of all the separate factors. Both the identification, investigation, and assessment of alternatives, and the generation and consideration of modifications and changes to activities must be well documented. A reasoned explanation as to why an alternative was or was not found to be reasonable and feasible has been provided for each alternative type. The criteria in Table 6 were used during the identification and assessment of alternatives.

7.3.2 Role of the various parties in the consideration of alternatives

7.3.2.1 The role of the Applicant

- Consider the strategic planning and environmental context within which the development and alternatives are to be considered;
- Consider all feasible and reasonable alternatives (not only the preferred option); and
- Provide the EAP with access to all information at the disposal of the applicant regarding the application.

Table 5: Alternatives assessment methodology

Criteria	General description / methodology for alternatives assessment	Project specific action taken for alternatives assessment
Identification of alternatives	<p>Alternatives have been identified as early as possible in the process (planning and design phase). Alternatives will further be considered and assessed throughout the project life as amendments to the alternatives are made. Assessment of the alternatives will only cease once final alternatives have been decided upon. These will be the final alternatives for which Environmental Authorisation will be applied for. The identification of alternatives should be broad, objectively done and well documented.</p>	<p>Due to the nature of the project, not all alternative types as listed above could be assessed as some of the activities have only one option for implementation. Where possible, alternatives were considered.</p>
Comparative assessment	<p>The project alternatives will be determined according to the alternative types identified as feasible and reasonable and assessed comparatively.</p>	
Reasonability and feasibility	<p>All alternatives were considered in terms of reasonability, feasibility, practicability, relevancy and viability. As determined throughout the process, not all alternatives will be reasonable or feasible. These will in subsequent reports be mentioned as being considered but will not be described in detail.</p>	<p>Only alternatives considered reasonable and feasible at the scoping phase have been included in this report. Alternatives discarded prior to this phase have not been included and will not be considered further.</p>
Sustainability considerations and effectiveness of alternatives	<p>The alternatives identified have taken into account the triple bottom-line of sustainability i.e. meeting the socio-economic and ecological needs of the public. The alternatives aim to maximise the benefits and avoid or minimise the negative impacts. The primary objective has been to avoid all negative impacts (where possible), rather than to minimise them. The alternatives further took into consideration the need to maximise resource use efficiency.</p>	<p>Alternatives with regards to the proposed development considered the best practical environmental option in terms of timeframes and implementation methods/ designs.</p>

Criteria	General description / methodology for alternatives assessment	Project specific action taken for alternatives assessment
Discrete vs. incremental alternatives	Initial alternatives identified, also known as discrete alternatives were identified during the early stages of a project (pre-feasibility and feasibility) and comparatively assessed during the assessment phases. During subsequent consideration, as the project progresses, incremental modifications and changes to activities will occur. These incremental changes will be considered during the amendment to the project activities during project progression. Impacts and issues of these changes will also be considered, as and when they are identified	
Advantages and disadvantages	For each alternative, the related advantages and disadvantages have been considered for each alternative type. These have not been discussed in terms of the project alternatives.	
Impacts and aspects	Impacts and aspects related to the implementation of each alternative are listed with the alternative type descriptions. Detailed impacts are described in Section 7 for each project alternative. The aim is to address the key impacts of the proposed alternative by maximising benefits and avoiding or minimising the negative impacts. The primary objective must be to avoid all negative impacts, rather than to minimise them.	Main impacts identified to be considered in determining alternatives are as follows: <ul style="list-style-type: none"> • Aquatic fauna and flora • Surface water quality • Health and safety • Social aspects

Criteria	General description / methodology for alternatives assessment	Project specific action taken for alternatives assessment
Other considerations	<p>The “feasibility” and “reasonability” of and the need for alternatives should be determined by considering, amongst others:</p> <p>(a) the general purpose and requirements of the activity;</p> <p>(b) need and desirability;</p> <p>(c) opportunity costs;</p> <p>(d) the need to avoid negative impact altogether;</p> <p>(e) the need to minimise unavoidable negative impacts;</p> <p>(f) the need to maximise benefits; and</p> <p>(g) the need for equitable distributional consequences.</p> <p>Also refer to Section 4 for a detailed description of the need and desirability of the project.</p>	<p>The need and desirability of the project took into account various strategic planning documents applicable to the area as well as socio-economic priorities. This determined the feasibility and reasonability of the project. The need and desirability influenced the timeframes and design specifications considered for the project.</p>
I&APs	<p>I&APs have to be notified of both the preferred and alternative activities. They should also be allowed to comment on both.</p>	<p>Public participation will be undertaken in line with the requirements of Regulations 39 to 44 of GN R982 of 2014 as amended.</p>
No-go option	<p>The option of not implementing the activity has been to the same level of detail as the other feasible and reasonable alternatives.</p>	<p>The option of not proceeding with the activity (no-go option) provides a reliable baseline against which to compare and evaluate feasible and reasonable alternatives.</p>

7.3.2.2 The role of the EAP

- Consider the strategic planning and environmental context within which the development and alternatives are to be considered;
- Identify, investigate and assess alternatives;
- Afford opportunities for interested and affected parties to provide input into the identification, investigation and assessment of alternatives;
- Disclose all information relevant to the consideration of alternatives to the applicant and competent authority;
- Document the process of identification, investigation and assessment of alternatives (including providing the methodology and criteria used, and how the level of investigation applied to each alternative was established); and

- Provide a comprehensive consideration of the impacts of each of the alternatives assessed.

7.3.2.3 The role of specialists

- Assess impacts, especially the direct footprint as well as indirect and potential cumulative impacts of the development;
- Take into account the context and the intensity of the impact as related to their specific field of expertise;
- Highlight any impacts that could be irreversible or result in an irreplaceable loss of resource;
- Evaluate the significance of residual impacts associated with the proposed development, taking into account scientific information, local community and societal values attached to the environment as being impacted upon;
- Use accepted or formal standards, thresholds or targets for environmental quality, where available, as a key indicator of potential significance, since these measures reflect societal values. Where these benchmarks are absent, specialists should draw on a combination of criteria used to assess potential impacts, to indicate their potential significance, as well as feedback from key stakeholders; and
- Assess and respond to all comments made by Key Departments and Registered I&APs.

7.3.2.4 The role of I&APs

- Declare their interests;
- Assist in the identification, investigation and assessment of alternatives, particularly where local knowledge is required;
- Within the specified timeframes, provide comment on the consideration of alternatives.

7.4 CRITERIA FOR ASSESSMENT OF IMPACTS

Below is the assessment methodology utilized in determining the significance of the construction, operational and decommission impacts of the proposed activities, and where applicable the possible alternatives, on the biophysical and socio-economic environment. The methodology is broadly consistent to that described in Integrated Environmental Management Series.

For each impact, the significance is determined by various factors. Significance is described prior to mitigation as well as with the most effective mitigation measure(s) in place.

The mitigation described in the Environmental Management Programme (EMP) document, to be attached to the EIA, represents the full range of plausible and pragmatic measures *but does not necessarily imply that they all should or will be implemented*. The decision as to which mitigation measures to implement lies with the applicant and ultimately with the competent authority. To facilitate informed decision-making, EIAs must endeavour to come to terms with the significance of

the potential environmental impacts associated with particular development activities. Despite the attempts at providing a completely objective and impartial assessment of the environmental implications of development activities, EIA processes can never completely escape the subjectivity inherent in attempting to define significance. Recognising this, potential subjectivity in the EIA process will be addressed as follows:

- Be clear about the difficulty of being completely objective in the determination of significance;
- Develop an explicit methodology for assigning significance to impacts and outlining this methodology in detail. Having an explicit methodology not only forces the assessor to come to terms with the various facets contributing toward determination of significance, thereby avoiding arbitrary assignment, but also provides the reader of the EIA Report with a clear summary of how the assessor derived the assigned significance; and
- Wherever possible, differentiating between the likely significance of potential environmental impacts as experienced by the various affected parties.

Although these measures may not totally eliminate subjectivity, they do provide an explicit context within which to review the assessment of impacts.

Table 6: Assessment criteria for the evaluation of impacts

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.

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

Criteria	Description		
impact can be mitigated	(CM)		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.

Cumulative impact: Consideration must be given to the extent of any accumulative impact that may occur due to the proposed development. Such impacts must be evaluated with an assessment of similar developments already on the environment. Such impacts will be either positive or negative, and will be graded as being of negligible, low, medium or high impact.

Degree of confidence in predictions: The specialist should state what degree of confidence (low, medium or high) is there in the predictions based on the available information and level of knowledge and expertise.

7.5 PUBLIC PARTICIPATION PROCESS

Public participation processes will be undertaken as follows:

- Registered I&APs will be appraised of the draft Scoping Report and Plan of Study for EIA; and
- During the EIA phase, the draft EIA Report will be open for comment and input from registered I&APs.

The project team will evaluate any comment and input as may be forthcoming and will respond as appropriate to issues and concerns as raised by I&APs.

Should amendments to any Draft Reports be substantive, or should the Final Report contain substantive information that was not included in the Draft Report, registered I&APs will be afforded an opportunity to again comment on the Final Report before it is submitted to the competent authority as provided for by Regulation.

Once all comments have been addressed, the Final EIA Report will be submitted to the competent authority for evaluation.

7.6 TERMS OF REFERENCE (TOR) FOR SPECIALIST STUDIES TO BE INCLUDED IN THE EIA PHASE

The specialists will be provided with set criteria for undertaking their assessments, to allow for comparative assessment of all issues, inclusive of input as received from IA&Ps. These criteria are inclusive of the need to consider the no go option as the base line option. These criteria are defined in the EIA Regulations: Guideline and

Information Document Series: Generic Terms of Reference for Environmental Assessment Practitioners: For Basic Assessment and Scoping-EIA. Specialists will also comply with Regulation 23 of the EIA Regulations.

The following specialist studies/additional reports will be included in the EIA phase:

1. Risk Assessment as part of the water use application (to be submitted to DWS) which will include a Freshwater Impact Assessment.
2. Transport Impact Assessment.
3. Storm water Management Plan.
4. Services Report for civil engineering services for the remainder of erf 1, Railton for Swellendam municipality.
5. Botanical Assessment (second assessment by 3rd party specialist).
6. Geotechnical Assessment.

SECTION 8: ASSUMPTIONS AND LIMITATIONS

8.1 ASSUMPTIONS

The assumption is that the information on which the report is based (such as base line studies and project information, as well as existing information) is correct. The baseline information provided is preliminary and may need more detailed investigation, which will form part of the subsequent stages of the Scoping - EIA process. Statements or indicators of significance must be considered in the light of uncertainty regarding the extent and significance of such resources on the site.

8.2 LIMITATIONS

This report is based on currently available information and, as a result, the following limitations are implicit:

- The report is based on a project description taken from design specifications for the proposed development that have not yet been finalised, and which may undergo a number of iterations and refinements before they can be regarded as definitive;
- A project description based on the final design will be provided in the EIA Phase; and
- Descriptions of the natural and social environments are based on limited fieldwork and local knowledge as well as available literature.

More information will be provided in the EIA phase based on the outcomes of the specialist studies.

SECTION 9: CONCLUSION

The proposed development is necessary in order to provide efficient housing and services as well as to promote social health and wellbeing of the town Swellendam.

The EIA phase will determine the most feasible alternatives according to the results of the specialist studies as well as the input from all I&APs and key departments. Detail

impacts will be determined accordingly and appropriate management and mitigation measures provided.

SECTION 10: REFERENCES:

Swellendam Municipality. 2016. Integrated Development Plan 2016-17 Review.

Swellendam Municipality. 2017. SPATIAL DEVELOPMENT FRAMEWORK.

Hanekom N. 2018. Ecological Baseline Assessment. Proposed Swellendam Housing Project (Sites E & H on RE/1 and Site I on RE/157). Eco Impact.