


**ENVIRONMENTAL IMPACT ASSESSMENT FOR THE
RENEWAL OF THE ENVIRONMENTAL CLEARANCE
TO FINALISE THE TOWN PLANNING PROCEDURES
FOR THE DEVELOPMENT OF A LODGE, NATURE
ESTATE, RESIDENTIAL ERVEN AND RURAL
RESIDENTIAL ESTATE ON THE REMAINDER OF
FARM GOOD HOPE NO. 298, OTJIWARONGO,
OTJOZONDJUPA REGION**

July 2023

App - 230803001826

<p>Project Name:</p>	<p><i>ENVIRONMENTAL IMPACT ASSESSMENT FOR THE RENEWAL OF THE ENVIRONMENTAL CLEARANCE TO FINALISE THE TOWN PLANNING PROCEDURES FOR THE DEVELOPMENT OF A LODGE, NATURE ESTATE, RESIDENTIAL ERVEN AND RURAL RESIDENTIAL ESTATE ON THE REMAINDER OF FARM GOOD HOPE NO. 298, OTJIWARONGO, OTJOZONDJUPA REGION</i></p>
<p>Proponent:</p>	<p>Brandberg Construction P O Box 11588 WINDHOEK</p>
<p>Prepared by:</p>	<div data-bbox="639 907 1338 1176" style="border: 1px solid black; padding: 10px; text-align: center;">  <p>Green Earth ENVIRONMENTAL CONSULTANTS</p> <p><small>1st floor Bridgeview Offices & Apartments, No. 4 Dr Kwame Nkrumah Avenue, Klein Windhoek, Namibia PO Box 6871, Ausspannplatz, Windhoek</small></p> </div>
<p>Release Date:</p>	<p>July 2023</p>
<p>Consultant:</p>	<p>C. Du Toit C. Van Der Walt Cell: 081 127 3145 Email: charlie@greenearthnamibia.com</p>

EXECUTIVE SUMMARY

Green Earth Environmental Consultants have been appointed by the proponent, Brandberg Construction, to conduct an Environmental Impact Assessment (EIA) and prepare an Environmental Management Plan (EMP) **to renew the Environmental Clearance (EC) for the construction of a lodge, nature estate, residential erven and a rural residential estate including public open spaces, public streets and servitudes on the Remainder of Consolidated Farm Good Hope No. 298, Otjiwarongo, Otjozondjupa Region** as per the requirements of the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012). The proposed development will take place over 2 phases. During Phase 1 the Remainder of Farm Good Hope No. 298 will be subdivided into 158 portions. During Phase 2, a township consisting of 306 erven will be established on Portion 149 which has been created in Phase 1. In the future, if there is a demand for more serviced erven, it is intended to establish similar townships on Portions 148, 150, 151 and 152. It is estimated that a further 3000 plus erven will be created through these processes. The proposed development will be serviced by the normal bulk services including electrical and water reticulation systems, a waterborne sewer system and street network in accordance with Municipal requirements. The new Environmental Clearance (EC) is required for the existing and ongoing operations on the above-named site. An EC must be renewed after it expired (3 years) to ensure that the Proponent is operating in conformance with the approved EMP as well as in accordance with the stipulations of the Act and its Regulations.

The land within the immediate vicinity of Farm Good Hope No. 298 is characterized by the residential areas of Otjiwarongo town to the north east and the natural open spaces of the surrounding commercial farms. In terms of the Regulations of the Environmental Management Act (No 7 of 2007) an Environmental Impact Assessment Renewal has to be done to address the following 'Listed Activities':

LAND USE AND DEVELOPMENT ACTIVITIES

5.2 Establishment of land resettlement schemes

TOURISM DEVELOPMENT ACTIVITIES

6. The construction of resorts, lodges, hotels or other tourism and hospitality facilities.

INFRASTRUCTURE

10.2 The route determination of roads and design of associated physical infrastructure where -

- (a) it is a public road;*
- (b) the road reserve is wider than 30 meters; or*
- (c) the road caters for more than one lane of traffic in both directions.*

The positive impacts associated with the proposed development on the Remainder of Farm Good Hope No. 298 are the availing of additional land to be developed and the opportunity for individuals to be able to purchase land near Otjiwarongo. It is envisaged that the project will create work in the construction phase and after completion. The development will give the area a much-needed economic injection which will have a multiplier effect in the community regarding sales and services. Services that will benefit from this development are amongst other the retail and service sector and others. The project will also bring in investments and buying power.

Negative impacts associated with the development are the destruction of the current habitat and the proposed visual impacts of the new development, water will be used and the town will be expanded. Negative impacts derived from the project are mainly associated with the construction phase for instance an increase in traffic, dust and noise. However, the construction and operational activities further on need to be controlled and monitored by the assigned developers and the proponent. Mitigation measures will be provided that can control the extent, intensity and frequency of these named impacts in order not to have substantial negative effects or results. It is thus furthermore believed that the proposed project will not pose any long-lasting negative effects to neighbours or on the environment. The following Environmental Impact Assessment Renewal was conducted in accordance with the Environmental Management Act (No 7 of 2007) and the environment was taken in full consideration throughout the assessment.

The environmental impacts during the operational phase of the proposed project:

IMPACTS DURING OPERATIONAL PHASE			
Aspect	Impact Type	Significance of impacts Unmitigated	Significance of impacts Mitigated
Ecology Impacts	-	M	L
Dust and Air Quality	-	M	L
Groundwater Contamination	-	M	L
Waste Generation	-	M	L
Failure of Reticulation Pipeline	-	M	L
Fires and Explosions	-	M	L
Safety and Security	-	M	L

IMPACT EVALUATION CRITERION (DEAT 2006):		
Criteria	Rating (Severity)	
Impact Type	+	Positive
	O	No Impact
	-	Negative
Significance of impacts	L	Low (Little or no impact)
	M	Medium (Manageable impacts)
	H	High (Adverse impact)

The type of activities that will be carried out on the site will not negatively affect the amenity of the locality and the activities will not adversely affect the environmental quality of the area. None of the potential impacts identified are regarded as having a significant impact to the extent that the proposed project should not be allowed. However, the operational activities further on need to be controlled and monitored by the assigned managers and the proponent. Mitigation measures will be provided that can control the extent, intensity, and frequency of these named impacts in order not to have substantial negative effects or results. It is believed that the overall cumulative impact on the biophysical environment will be low and there will be a positive impact on the socio-economic environment.

The Environmental Impact Assessment Renewal which follows upon this paragraph was conducted in accordance with the guidelines and stipulations of the Environmental Management Act (No 7 of 2007) meaning that all possible impacts have been considered and the details are presented in the report.

Based upon the conclusions and recommendations of the renewed Environmental Impact Assessment Report and Environmental Management Plan, the Environmental Commissioner of the Ministry of Environment, Forestry and Tourism is herewith requested to:

1. Accept and approve the renewed Environmental Impact Assessment.
2. Accept and approve the renewed Environmental Management Plan.
3. Issue a renewed Environmental Clearance for the construction of a lodge, nature estate, residential erven and a rural residential estate including public open spaces, public streets and servitudes on the Remainder of Consolidated Farm Good Hope No. 298, Otjiwarongo, Otjozondjupa Region and for the following listed activities:

LAND USE AND DEVELOPMENT ACTIVITIES

5.2 Establishment of land resettlement schemes

TOURISM DEVELOPMENT ACTIVITIES

6. The construction of resorts, lodges, hotels or other tourism and hospitality facilities.

INFRASTRUCTURE

10.2 The route determination of roads and design of associated physical infrastructure where -

- (a) it is a public road;*
- (b) the road reserve is wider than 30 meters; or*
- (c) the road caters for more than one lane of traffic in both directions.*

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LIST OF ABBREVIATIONS

EC	Environmental Clearance
ECO	Environment Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
I&APs	Interested and Affected Parties
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism

1. INTRODUCTION

Green Earth Environmental Consultants have been appointed by Brandberg Construction to attend to and complete an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) to renew the Environmental Clearance (EC) for the construction of a lodge, nature estate, residential erven and a rural residential estate including public open spaces, public streets and servitudes on the Remainder of Consolidated Farm Good Hope No. 298, Otjiwarongo, Otjozondjupa Region as per the requirements of the Environmental Management Act (No. 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012). It is required to renew the Environmental Clearance (EC) as the old EC which was issued on 13 July 2020 expired on 13 July 2023.

The activities listed below, which forms part of the proposed operations, may not be undertaken without an Environmental Clearance Renewal:

LAND USE AND DEVELOPMENT ACTIVITIES

5.2 Establishment of land resettlement schemes

TOURISM DEVELOPMENT ACTIVITIES

6. The construction of resorts, lodges, hotels or other tourism and hospitality facilities.

INFRASTRUCTURE

10.2 The route determination of roads and design of associated physical infrastructure where -

- (a) it is a public road;*
- (b) the road reserve is wider than 30 meters; or*
- (c) the road caters for more than one lane of traffic in both directions.*

The following Environmental Impact Assessment Renewal contains information on the project and the surrounding areas and activities.

2. TERMS OF REFERENCE

To be able to implement the project, an Environmental Impact Assessment Renewal and Environmental Clearance Renewal is required. For this environmental impact exercise, *Green Earth Environmental Consultants* followed the terms of reference as stipulated under the Environmental Management Act.

The aim of the environmental impact assessment is:

- To comply with Namibia's Environmental Management Act (2007) and its regulations (2012).
- To ascertain existing environmental conditions on the site to determine its environmental sensitivity.

- To inform I&APs and relevant authorities of the details of the proposed activities and to provide them with an opportunity to raise issues and concerns.
- To assess the significance of issues and concerns raised.
- To compile a report detailing all identified issues and possible impacts, stipulating the way forward and identify specialist investigations required.
- To adhere to the National Solid Waste Management Strategy of the Ministry of Environment, Forestry and Tourism
- To outline management guidelines in an Environmental Management Plan (EMP) to minimize and/or mitigate potentially negative impacts.

The tasks that will be undertaken for the Environmental Impact Assessment Renewal include the evaluation of the following: climate, water (hydrology), vegetation, geology, soils, social, cultural heritage, groundwater, sedimentation, erosion, biodiversity, sense of place, socio-economic environment, health, safety and traffic.

The renewed EIA and EMP from the assessment will be submitted to the Environmental Commissioner for consideration. A renewed Environmental Clearance will only be obtained (from the DEA) once the renewed EIA and EMP has been examined and approved for the listed activities.

The public consultation process as per the guidelines of the Act has been followed. The methods that were used to assess the environmental issues and alternatives included the collection of data on the project site and area from the proponent and identified stakeholders. All other permits, licenses or certificates that are further on required for the operation of the proposed project still needs to be applied for by the proponent.

3. PROJECT DESCRIPTION/SITE INFORMATION

3.1. LOCALITY OF PROJECT SITE

The Remainder of Consolidated Farm Good Hope No. 298 is located in the southwestern region of the Otjiwarongo Townlands, directly southeast of the town's high-income residential area. On the northern side the portion is defined by Road C33 which link Otjiwarongo with Kalkveld. The eastern boundary is defined by Trunk Road B1 which link Otjiwarongo with Okahandja. See *Figures* below for the locality plan of the site:

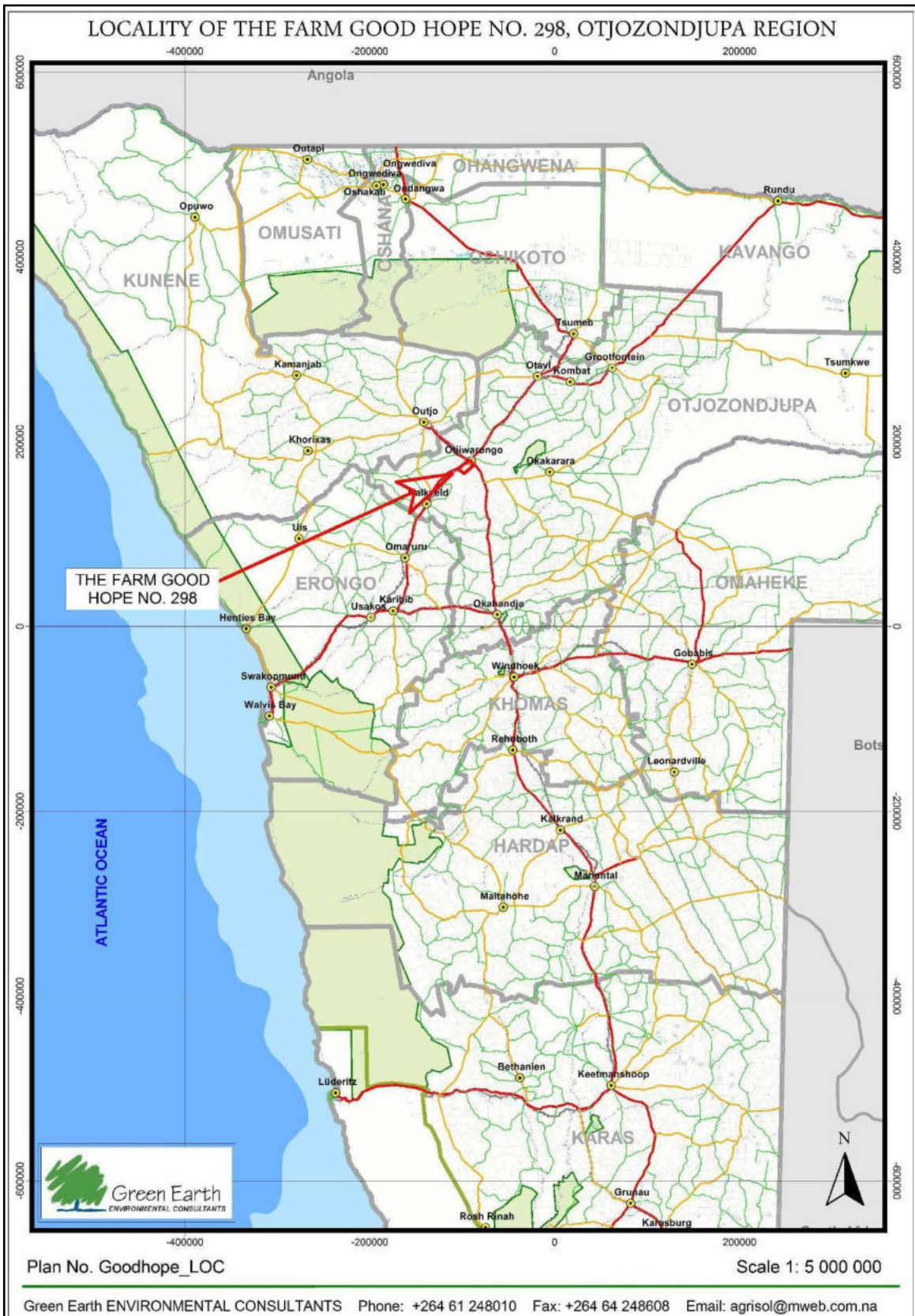


Figure 1: Location of Otjiwarongo and Farm Good Hope



Figure 2: Farm Good Hope Locality

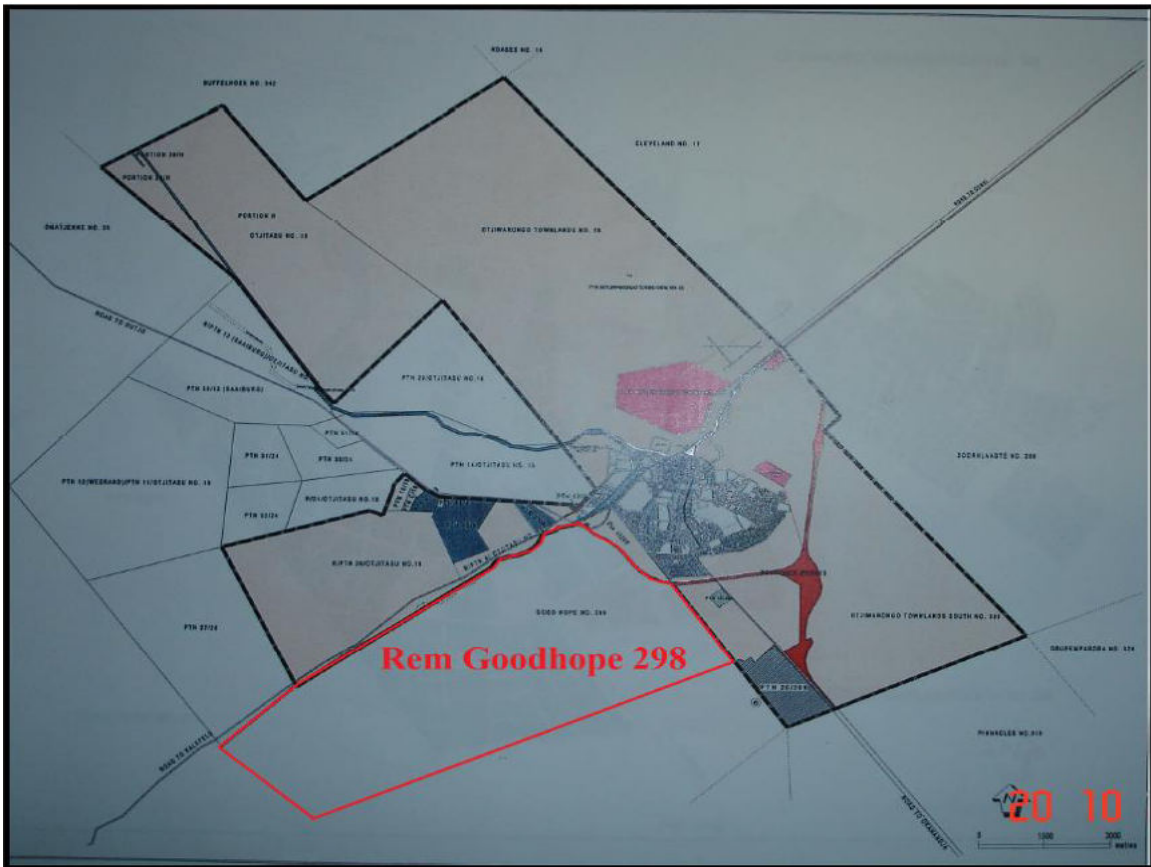


Figure 3: Plan showing location of Project Site

The Current Activities and Status: The Remainder of the Consolidated Farm Good Hope No 298 is 3 681.52 hectares in extent and is presently hosting a mixture of land uses including agricultural like extensive live stock and game farming and industrial activities like brick making and the sorting and handling of charcoal. The Remainder of the Consolidated Farm Good Hope No 298 has been included in the Otjiwarongo Structure Plan to provide for the future extension of the Town and the Portion has already been incorporated into the boundaries of the Otjiwarongo Municipality in terms of section 4(1)(b) of the Local Authorities Act (No 23 of 1992) and form now part of Otjiwarongo's Municipal area. See below the Otjiwarongo Structure plan showing the current Townlands Boundaries as well as the future Townlands Boundaries and Farm Good Hope's relative location to it:

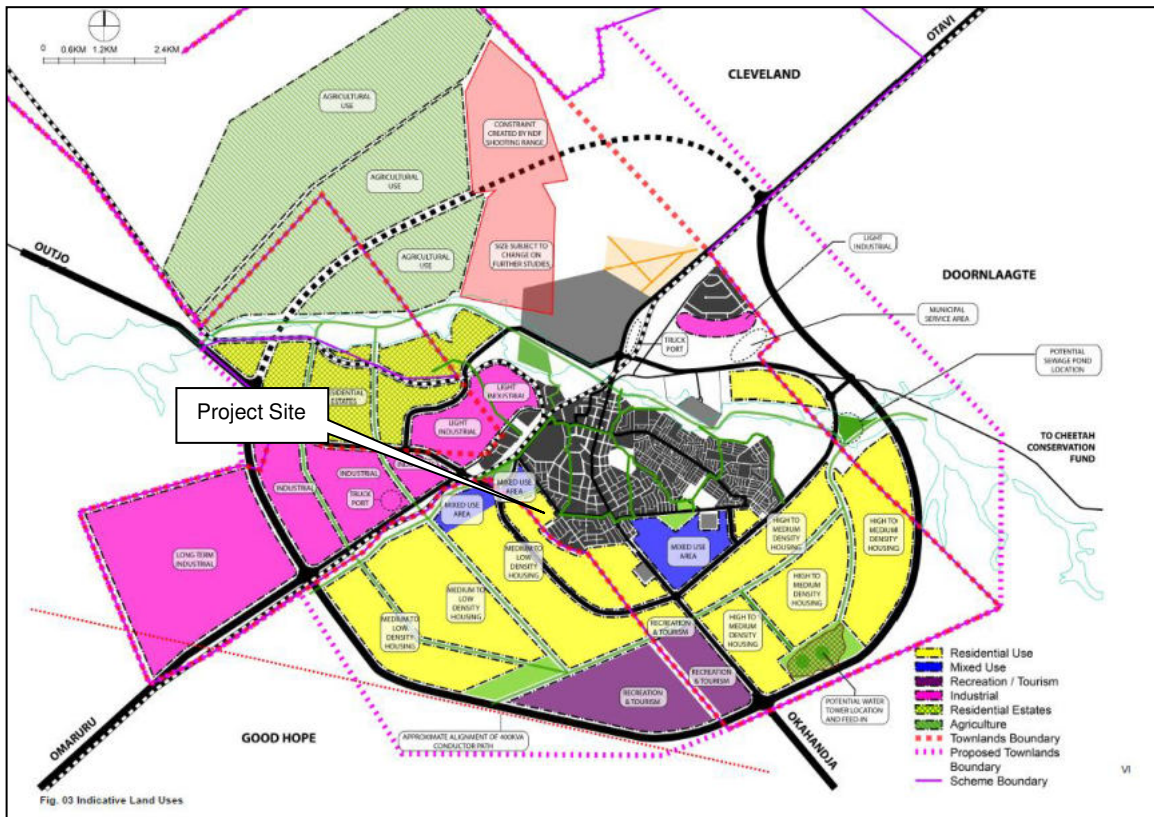


Figure 4: Structure Plan (done by Stubenrauch Planning Consultants)

Development Proposal: The Portion is ideally suited for a low density lifestyle development in the northern half and high income residential development on the southern side. It is intended to do a low density lifestyle development on the northern portion of the Remainder of Farm Good Hope. One of the unique assets that Namibia has to sell to its people is its pristine natural environment. The vision for the future development of this area is to use the unique natural environmental features to develop the site as a peaceful and tranquil living environment where residents can live in harmony with nature.

Several lifestyle developments, although on much smaller portions of land, occur on private land outside but near to towns in Namibia of which some of the well know developments outside the City of Windhoek are Finkenstein Estate and Omeya Estate. These types of developments are popular due to the fact that they provide living areas closer to nature while not being too far from urban centres where the necessary social, health and economic services are available.

The **southern area**, adjacent to the current high income residential areas of Extension 5 and 7, Otjiwarongo will be developed as a further expansion of the residential area. This will alleviate the shortage of residential even in Otjiwarongo.

The proposed development will be phased. During **Phase 1** the Remainder of the Consolidated Farm Good Hope No 298 will be subdivided into 158 portions as per the subdivision plan below. These portions include portions for residential use, the zonings 'nature estate' and 'rural residence' as per the Otjiwarongo Town Planning Scheme. Two

portions of 800ha plus will also be created for agricultural use and the development of a lodge. The streets will be reserved as streets.

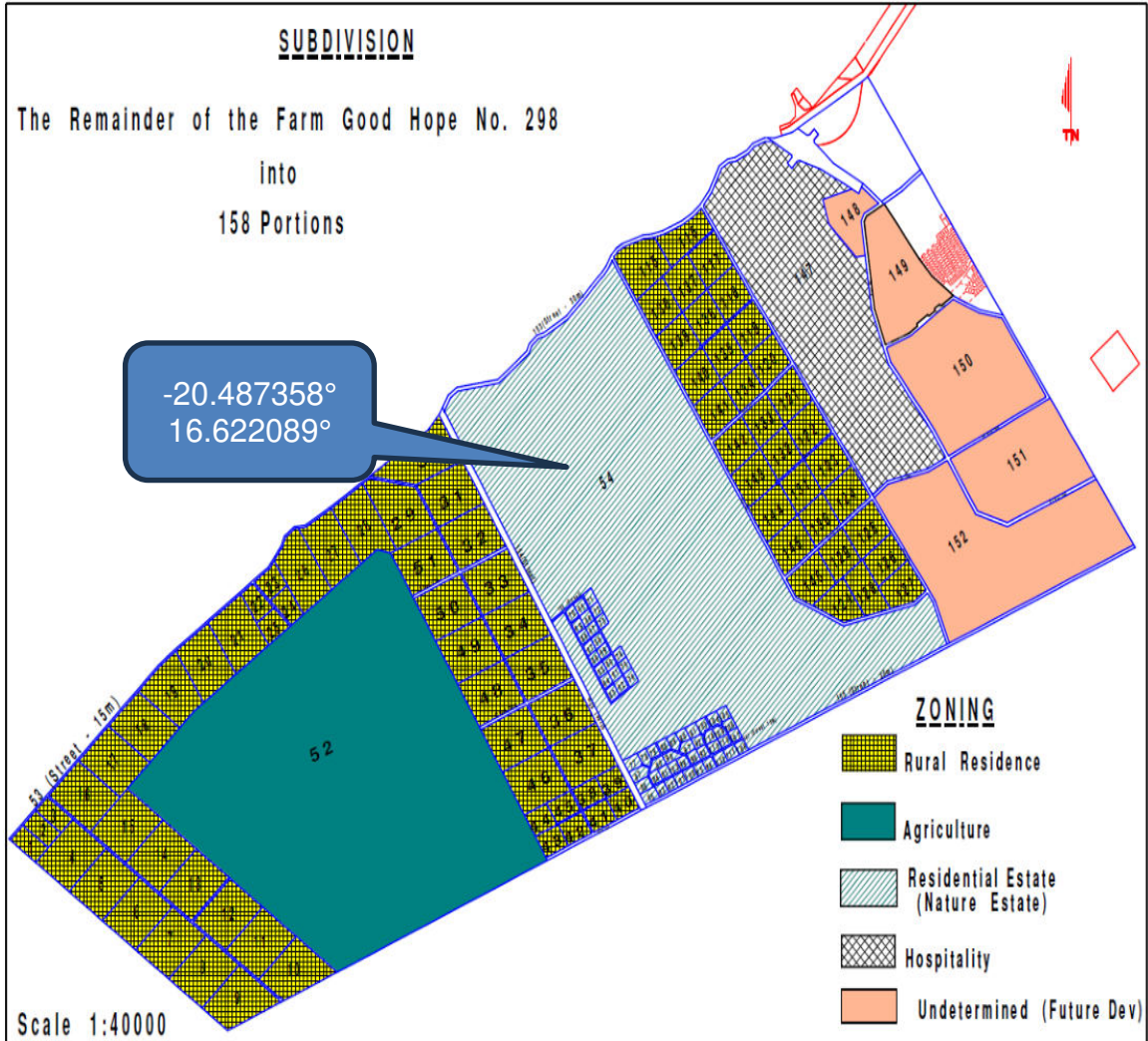


Figure 5: Subdivision Plan

The portions to be created are listed in the *Table* below. The portion sizes in hectare as well as the zoning or land use is also indicated in the *Table*. The portions (excluding street portions) vary from 5ha to 821ha. The portions to be zoned 'rural residence' are from 5ha to 24ha in extent. The portions included in the Nature Estate are between 1 and 1.6ha. A portion of 800ha (Portion 52) will remain for agricultural use and a portion (Portion 54) of 821ha will be created for the development of the lodge.

During **Phase 2** it is intended to establish a township of 306 erven on Portion 149 of the Remainder of the Consolidated Farm Good Hope No 298 which has been created in Phase 1. The allocation of land and land uses are summarised in the *Figure* below:

Land use	Total Area (Ha)	Number of Erven	Numbers	% Total
Residential	224 722	279	1 to 279	44%
Institutional	10 513	4	280 to 283	2%
Res II	22 300	3	284 to 286	4%
Light Industrial	10 236	1	287	2%
Gen Business	29 085	13	288 to 300	6%
Service Station	9 130	1	301	2%
POS	117 812	3	302 to 304	23%
Street	91 737	2	305 to 306	18%
Total Area	515 550	306	1 to 306	100%

Figure 6: Phase 2 Land Use

The subdivision and land use plan of the proposed township establishment is shown on the *Figure* below:

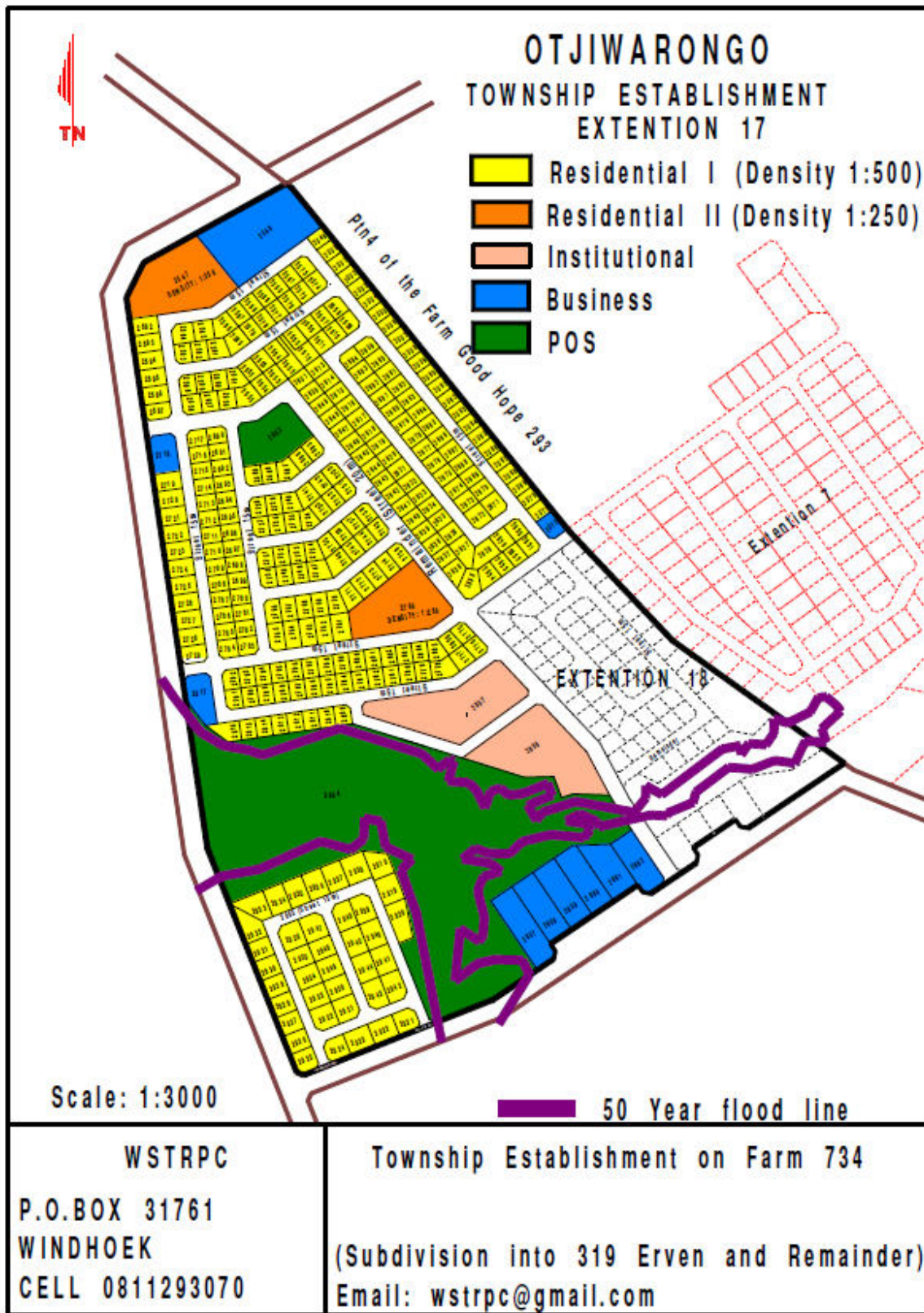


Figure 7: Subdivision Plan of Farm 734 (Otjiwarongo Extension 17)

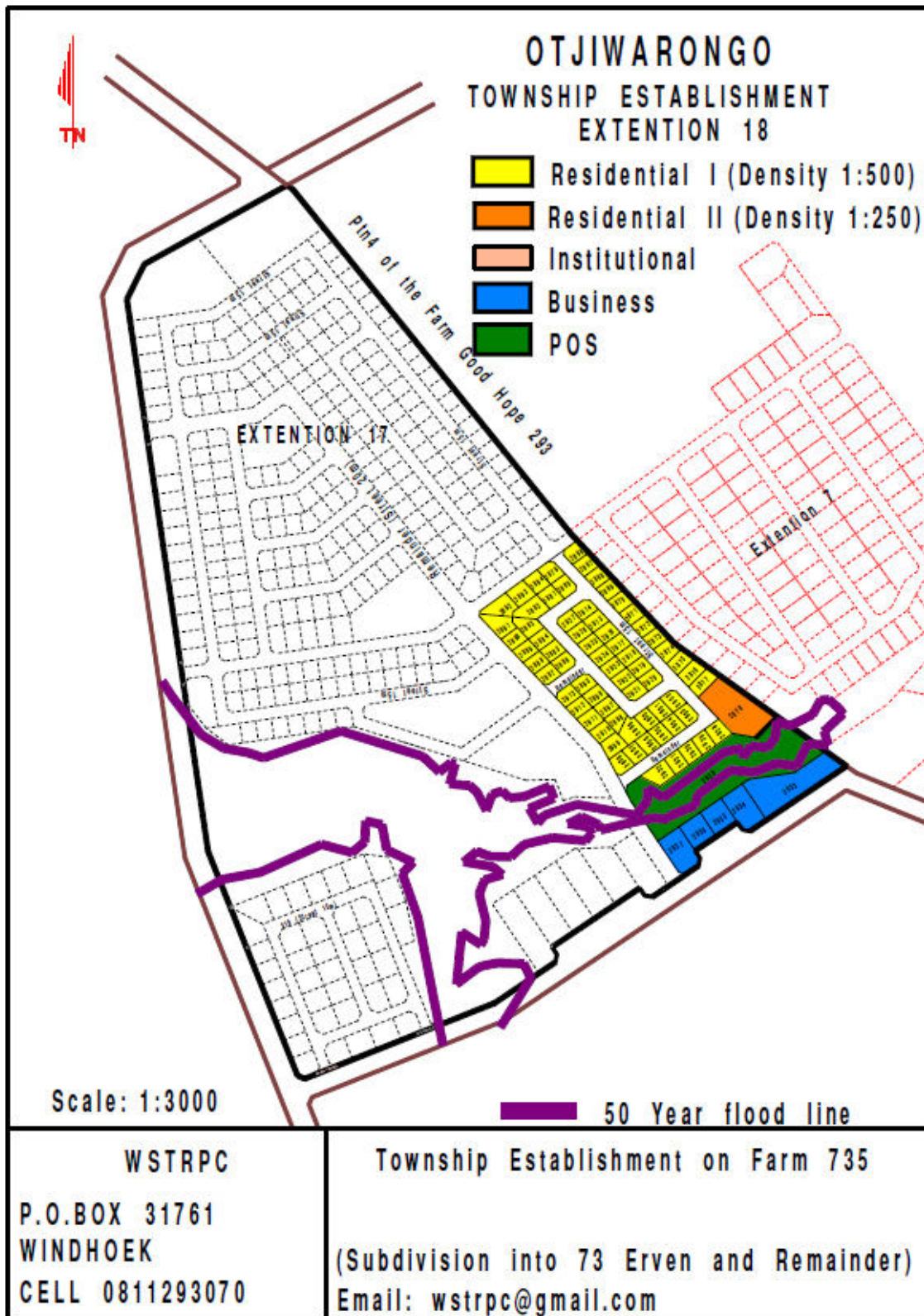


Figure 8: Subdivision Plan of Farm 735 (Otjiwarongo Extension 18)

The township to be established provides for the whole spectrum of land uses associated with such a town like residential erven, institutional erven (to be used for a school, church or clinic), business erven, industrial erven, a service station, public open spaces and streets.

In the future, if there is a demand for more serviced erven, it is intended to establish similar townships on Portions 148, 150, 151 and 152. It is estimated that a further 3000 plus erven will be created through these processes.

The proposed development will be serviced by the normal bulk services including electrical and water reticulation systems, a waterborne sewer system and street network in accordance with Municipal requirements.

4. CURRENT STATUS OF PROJECT

It is the Proponent's intension to construct a lodge, nature estate, residential erven and a rural residential estate including public open spaces, public streets and servitudes on the site. Before any construction can start, the Proponent has to obtain the various statutory approvals from the Municipality of Otjiwarongo, the Ministry of Environment and Tourism, the Namibian Planning and Advisory Board, Townships Board as well as the Surveyor General's Office. The survey of the General Plan has been completed by the Land Surveyor and submitted to the Surveyor General's Office for approval. All other approvals have been obtained except for the approval of the General Plan which is now awaited by the Proponent. It is the intension of the Proponent to continue with the implementation of the project as soon as the General Plan is approved.

The processes to obtain the above approvals took longer than anticipated and the Environmental Clearance expired and thus must be renewed.

5. APPROVALS OBTAINED

The following approvals have been obtained to allow the implementation of this project:

5.1. APPROVAL OTJIWARONGO MUNICIPALITY

Otjiwarongo Municipality on 12 September 2016, per Council Resolution 9.8, approved the development of the Remainder of Consolidated Farm Good Hope No 298 in terms of Section 4 (1)(b) of the Local Authority Act (No. 23 of 1992). See copy of Council's Resolution below:



MUNICIPALITY
OTJIWARONGO

TELEPHONE (09 264 67) 302231 / 32 / 302500 / 302059
FAX (09 264 67) 302098
www.otjiwarongo.na enquiries@otjimun.org.na

PRIVATE BAG 2209
OTJIWARONGO
Namibia

REF NO 20160510 – Farm Goodhope No 298

ENQUIRIES: Mr Naude Slabbert

2016.09.14

Att: Willem Schutz

Willie Schutz Town & Regional Planning Consultants cc
PO Box 31761

WINDHOEK

Namibia

Dear Sir

**DEVELOPMENT OF THE REMAINDER OF THE FARM GOODHOPE 298,
OTJIWARONGO**

Your letter dated 15 July 2016 (Goodhope/App) bears reference.

Council on its meeting held on 12th September 2016 by Resolution 9.8 approved the development of the remainder of the Farm Goodhope 298, Otjiwarongo in terms of Section 4 (1)(b), of the Local Authority Act 1992 (Act 23 of 1992) subjected:

- Support the subdivision of the Remainder of the Consolidated Farm Goodhope No. 298 into 159 Portions and the Remainder
- Support the need and desirability for the Township establishment on newly created Portion 149 and 150 of the Consolidated Farm Goodhope No. 298
- Support the Township Establishment and Layout approval on Portion 149 and 150 of the Consolidated Farm Goodhope No. 298

Attached hereto is the Council Resolution and date stamped map.

For any further enquiries in this regard please do not hesitate on contact our offices.

Yours faithfully

I /HOWOSEB
CHIEF EXECUTIVE OFFICER

/dn

5.2. APPROVAL NAMIBIA PLANNING & ADVISORY BOARD

The Minister of Urban and Rural Development through NAMPAB (Namibia Planning and Advisory Board) on 12 May 2017 approved the subdivision of the Remainder of Farm Good Hope No 298 into Farm No 686 to 744 and the Remainder as well as the Need and Desirability for the establishment of a Township on Farm No 734 and 735 to be known as Otjiwarongo Extension 17 and 18. See below the Ministerial Approval letter:


Republic of Namibia

Ministry of Urban and Rural Development

Tel: (+264 61) 2975111 Government Office Park Private Bag 13289
Fax: (+264 61) 2975096 Luther Street Windhoek, Namibia
E-mail: enquiries@murd.gov.na
Website: www.murd.gov.na

Enquiries: T. Kamati Our Ref: 17/41/05 Date: 19 May 2017
Tel: (+264+61) 297 5201 Your Ref:
Fax: (+264+61) 2975305

Willie Schutz Town and Regional Planning Consultants
P O Box 31761
WINDHOEK

Dear Mr. Schutz

ITEM NO. 28/2017: OTJIWARONGO: SUBDIVISION OF THE REMAINDER OF THE CONSOLIDATED FARM GOODHOPE NO. 298 INTO FARM NO. 586 TO 744 AND THE REMAINDER AND THE NEED AND DESIRABILITY FOR TOWNSHIP ESTABLISHMENT ON FARM NO. 734 AND 735 OF THE CONSOLIDATED FARM GOODHOPE NO. 29 (TO BE KNOWN AS OTJIWARONGO EXTENSION 17 AND 18)

With reference to the above-mentioned application:

You are hereby informed that the Minister of Urban and Rural Development has, on 12 May 2017, approved the subdivision of the Remainder of the Consolidated Farm Goodhope No. 298 into Farm No. 586 to 744 and the Remainder in terms of Section 21 of the Townships and Division of Land Ordinance, 1963 (Ordinance 11 of 1963), as amended and the need and desirability for township establishment on Farm No. 734 and 735 of the Consolidated Farm Goodhope No. 298 (to be known as Otjiwarongo Extension 17 and 18) in terms of Section 5(5)(a)(i) of the Townships and Division of Land Ordinance, 1963 (Ordinance 11 of 1963), as amended.

Attached, please find the original Subdivision Certificate

Yours sincerely



NAMPAB SECRETARIAT



All official correspondence must be addressed to the Permanent Secretary

5.3. APPROVAL TOWNSHIPS BOARD

The Ministry of Urban and Rural Development through the Townships Board on 22 August 2017 approved the establishment of a Township on Farm No 734 and 745 of the Consolidated Farm Good Hope No 298. See the approvals below:

 Republic of Namibia		
<hr/> Ministry of Urban and Rural Development <hr/>		
Enquiries: h. N. Van Wyk Tel: (+264+61) 297-5230 Fax: (+264+61) 297-5305 Email: hvanwyk@murd.gov.na	Government Office Park Luther Street Our Ref.: 17/1/05 Ext 17 Your Ref.:	Private Bag 13289 Windhoek, Namibia Date: 9 May 2018
 Messrs Willie Schutz Town and Regional Planning Consultants P O Box 31761 WINDHOEK		
 SUBJECT: OTJIWARONGO EXTENSION 17: ESTABLISHMENT OF THE TOWNSHIP ON FARM NO. 734 OF THE CONSOLIDATED FARM GOOD HOPE NO. 298.		
 1. Your letter dated June 2017 has reference.		
 2. Approval has been granted in terms of Section 6 (2) and 6 (3) of the Townships and Division of Land Ordinance, 1963 (Ordinance 11 of 1963), for permission to establish the township of Otjiwarongo Extension 17 on Farm No. 734 of the Consolidated Farm Good Hope No. 298 under Townships Board Resolution Item 203/2017 dated 22 August 2017.		
 3. You are hereby informed that all planning processes must be complied with, within two (2) years from the date of this letter.		
 Yours faithfully		
		
TOWNSHIPS BOARD SECRETARIAT		
<hr/> <i>All official correspondence must be addressed to the Permanent Secretary</i>		



Republic of Namibia

Ministry of Urban and Rural Development

Enquiries: h. N. Van Wyk
Tel: (+264+61) 297-5230
Fax: (+264+61) 297-5305
Email: hvanwyk@murd.gov.na

Government Office Park
Luther Street

Private Bag 13289
Windhoek, Namibia

Our Ref.: 17/1/05 Ext 18
Your Ref.:

Date: 9 May 2018

**Messrs Willie Schutz
Town and Regional
Planning Consultants
P O Box 31761
WINDHOEK**

**SUBJECT: OTJIWARONGO EXTENSION 18: ESTABLISHMENT OF THE TOWNSHIP
ON FARM NO. 735 OF CONSOLIDATED FARM GOOD HOPE NO. 298.**

1. Your letter dated June 2017 has reference.
2. Approval has been granted in terms of Section 6 (2) and 6 (3) of the Townships and Division of Land Ordinance, 1963 (Ordinance 11 of 1963), for permission to establish the township of **Otjiwarongo Extension 18** on Farm No. 735 of the Consolidated Farm Good Hope No. 298 under Townships Board Resolution Item 204/2017 dated 22 August 2017.
3. You are hereby informed that all planning processes must be complied with, within two (2) years from the date of this letter.

Yours faithfully

TOWNSHIPS BOARD SECRETARIAT

All official correspondence must be addressed to the Permanent Secretary

5.4. APPROVAL MEFT

The current Environmental Clearance Certificate was issued by the Ministry of Environment, Forestry and Tourism (MEFT) on 13 July 2020 which expired on 13 July 2023. See below a copy of the current Certificate:

ECC – 00761 Serial: 9r69qR761



REPUBLIC OF NAMIBIA
MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM
OFFICE OF THE ENVIRONMENTAL COMMISSIONER

ENVIRONMENTAL CLEARANCE CERTIFICATE

ISSUED

In accordance with Section 37(2) of the Environmental Management Act (Act No. 7 of 2007)

TO

Brandberg Construction
P O Box 6871, Ausspannplatz, Windhoek

TO UNDERTAKE THE FOLLOWING LISTED ACTIVITY

Town Planning Procedures for the Development of a Lodge, Nature Estate, Residential Erven and Rural Residential Estate on the Remainder of Farm Good Hope No. 298, Otjozondjupa Region

Issued on the date: **2020-07-13**
Expires on this date: **2023-07-13**

(See conditions printed over leaf)

This certificate is printed without erasures or alterations




ENVIRONMENTAL COMMISSIONER
REPUBLIC OF NAMIBIA



The purpose of this submission is to renew the Environmental Clearance for a further 3 years to allow the Proponent to continue with the implementation of the project.

6. BULK SERVICES AND INFRASTRUCTURE PROVISION

The proponent appointed Element Consulting Engineers for the planning of the high level services required for the project. The report is attached to this EIA. The bulk services and infrastructure pertaining to this development were discussed with the Otjiwarongo Town Council at meetings on October 2014 and on 18 March 2015. The Otjiwarongo Town Council was represented by Town Engineer Mr Naude Slabbert. The issues discussed in these meetings appear in emails dated 22 March and 24 April 2015 of which copies are attached. From these meetings the following issues with regard to the availability/provision of bulk services should be noted:

6.1. ACCESS AND INTERNAL ROADS

The access roads over Municipal land were also discussed and Mr. Naude indicated that since Council approved the incorporation and development of the Farm it implies that they will approve the indicated access from Lang Street to create the necessary linkages with the town. The ring roads proposed by the structure plan (which is not finalised or approved) was also discussed and it is proposed that the options be discussed with the roads authority (see proposals at the end).

The level/standard of services, as the service levels, as per the approval letter, should not be applicable to plots and estates (wildlife and other). Mr. Naude concur that a different/lower level of municipal services is applicable that differ from the original approval. The reasons are stated in an engineering report indicating the services proposed which are in line with our current procedures.

Based on the meetings with the Council, NamWater officials, Cenored and the Roads Authority, the following is proposed for the bulk services for the proposed development:

The proposed developments of Phases 1 and 2 will obtain access from the following roads and streets:

Lang Street: Lang Street which is located alongside the south western boundary of the existing build up area will be extended in a south easterly direction to provide access to the development which is located southwest of the extended Lang Street. The accesses to be taken from Lang Street are shown on the *Photo* below:



Figure 9: Proposed Extension of Lang Street

Trunk Road B1: The Roads Authority conditionally approved two accesses to link the proposed development with Trunk Road B1 from the northeast. Access A is taken from the B1 at the current access off the Otjiwarongo Stable. Access B is taken from the B1 at the current access to the Otjiwarongo Golf Course. From Accesses A and B the current roads will be upgraded and extended to link up with Lang Street.

Main Road C33: The Roads Authority conditionally approved an access (Access C) to link the proposed development with Main Road C33 from the southwest. From Access C a road will be constructed to link up with the proposed internal road network. See the plan below showing Accesses A, B and C:

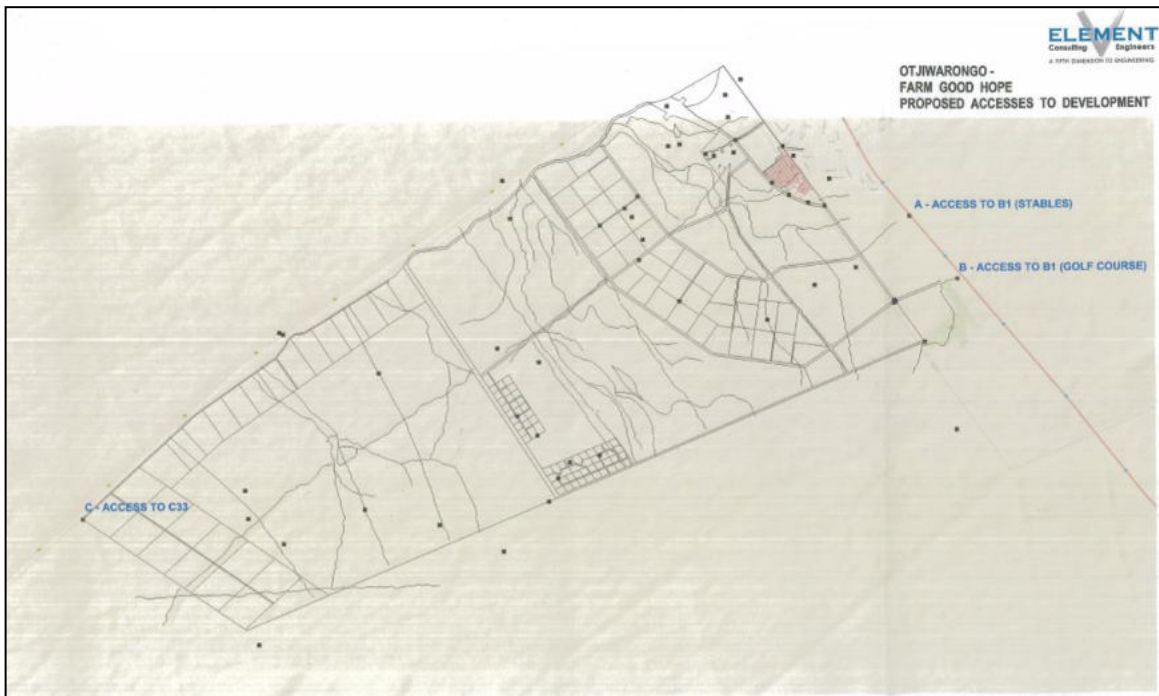


Figure 10: Map showing the roads

The roads will be constructed in accordance with the requirements of the Otjiwarongo Municipality. The road surfacing will vary in accordance to client specifications, but should under normal circumstances vary between interlocking paving, bitumen seal or gravel roads. Low water crossings and/or drifts will be used where roads cross lower lying areas and streams.



Figure 11: Current access to Project Site

Main Road C33: The Roads Authority conditionally approved an access (Access C) to link the proposed development with Main Road C33 from the southwest. From Access C a road will be constructed to link up with the proposed internal road network. The road linking Main Road C33 with the development crosses the railway line which link Walvis Bay with northern Namibia. An application was submitted to Trans Namib for permission to cross the railway line. A wayleave agreement will be signed between the current owner of the portion and later the Home Owners Association to formalise this railway crossing. Proper signage on both the road and railway line will be installed to warn road and rail users of this crossing.

6.2. WATER SUPPLY

The development should make provision for its own storage facilities and reticulation networks. The impact of a higher supply required from NamWater will result in a change in the agreement with the municipality and probably a higher water tariff for the town (negotiations to be done during the detailed phase). This might have an impact on the total betterment fees as mentioned in the council resolutions, also taking into consideration that the municipality will take over infrastructure from the developer, which will all have an impact on the final amount determined by the municipality. Mr. Slabbert advised that a meeting be held with NamWater's representatives as well to discuss water supply.

After a meeting with representatives of NamWater in Windhoek the following was noted:

Existing infrastructure should have additional hydraulic capacity to provide the development with water (referring only to pipe network and pumps). Sources supplying into the existing infrastructure, however will first have to be developed to ensure sustainable supply.

The representatives also indicated that it would be preferred if sustainable water saving/water re-use options be applied in the development (which would be in line with the proposed re-use of treated effluent water).

6.3. ELECTRICITY RETICULATION

The electricity demand for the development is estimated with the following criteria:

- ▢ Single phase supplies to all the group/town house type residential units
- ▢ Three phase supply to lodge
- ▢ Three phase supplies to all 10ha plots
- ▢ Three phase supplies to all the units at the nature estate

The After Diversity Maximum Demand (ADMD) of the group/town house type residential units is expected to be around 2.66 to 3kVA. The ADMD for the 10ha plots are expected to be around 5kVA and for the Nature Estate the units are expected to be around 10kVA. The aggregate of all other loads for example lodge, public lighting and street lighting etc. were evaluated individually.

With an allowance of 1000kVA for the WWTW, the total load for the Good Hope development can be expected to be: 12,650kVA.

There is presently not sufficient medium voltage (11kV) bulk capacity available from Cenored, who is the supply authority for this area, but there is adequate High Voltage supply available from NamPower. A new 132/66/11kV step down substation will be required with 2 X 10MVA transformers initially. The developer will be required to cover the cost of the substation on a pro rata basis. The lead time for such a substation would be a minimum of three years. This includes the EIA and the procurement of long delivery items such as the transformers.

The Internal Main medium voltage backbone shall be an 11kV underground cable network. This Internal Primary system shall feed mini substations, optimally positioned for an effective LV system. The Secondary system shall be a network of underground LV main feeder cables between the mini substations and Street Kiosks. These Street Kiosks shall feed erven per underground LV cables.

Each plot shall be reticulated with an 11kV overhead network. The system shall feed 16kVA pole mounted transformers positioned at each plot. The LV system from the pole mounted transformer shall be the responsibility of the plot owner. The lodge may be served with a medium voltage connection.

Note that energy conservation is an end user activity. Construction of dwellings and buildings should thus be energy efficient namely energy efficient lamps, light fittings and solar geysers should be implemented and the same applies for the eventual appliances to be used.

6.4. SEWAGE TREATMENT AND DISPOSAL

The existing oxidation ponds which serve the town are at capacity. The development should make provision for treatment of effluent, as existing infrastructure cannot accommodate more effluent.

The local authority has indicated that no sewerage connections are available for the developments. Treatment of the effluent from the residential development is envisaged to initially be by means of package treatment plants situated at the lowest points in the developments. It is however recommended that a detailed feasibility study is done to identify the possibility of a single wastewater treatment works with a treatment capacity in the order of 6 megalitres per day to cater for the entire development. With allowance for infiltration of stormwater and peaks, 6 megalitres per day can be regarded as a general estimate for sewage effluent after the entire development is complete.

Effluent quantities can be projected at 1000 l/day per erf. A total of approximately 4000 erven are planned which will result in 4 megalitres effluent per day for the residential zone.

Internal sewer reticulation will be done by means of Class 34 PVC-U sewer pipes (the diameters to be confirmed upon final design). Flow calculations and projections for future

expansions and growth will be done according to the Guidelines for Human Settlement Planning and Design Volume 2.

Treatment will take place to required standards and the treated effluent will be discharged into an existing water course. The necessary discharge permits will be obtained for these purposes.

For the plots, each plot owner will be responsible for the treatment of sewage internally on the plot. Pertaining to the lodge and the nature estate, it is proposed that package treatment plants are used as well, with possible future connections to the proposed treatment works.

Concrete manholes at intervals not exceeding 60m will provide service access to the sewer network. The design and construction of the proposed sewer facilities will be in accordance with the requirements of the Otjiwarongo Municipality.

6.5. SOLID WASTE DISPOSAL/REFUSE REMOVAL

It is proposed that the household waste is sorted into recyclables and non-recyclables at source/erf/plot and collected by an approved (to be approved by Otjiwarongo Town Council) operator to be recycled at an approved site or to be disposed of at an approved waste disposal/landfill site.

6.6. STORMWATER MANAGEMENT

The lower portions of the development will be positioned as not to be impacted by a 1:50 year flood event. Surface run off will be drained in the streets to the lower section of the site. If required, storm water catch pits and pipes will be designed for drainage. Where pipe systems and channels are to be incorporated for the stormwater drainage, adequate erosion protection will be specified at the outlets to prevent damage to natural water courses and the environment.

6.7. FIRE PROTECTION

The water mains should be designed that supply is always assured and it should be correctly sized for a design flow equivalent to the sum of the design instantaneous peak domestic demand for the area and the design fire flow. Provision must be made for proper firefighting and it is foreseen that above ground pillar type fire hydrants will be required in consultation with the Otjiwarongo Municipality as well as their standards and requirements.

7. ASSUMPTIONS AND LIMITATIONS

It is assumed that the information provided by Du Toit Town Planning Consultants, Otjiwarongo Municipality and Brandberg Construction (the proponent) is accurate. No alternative sites were evaluated as the proposed site for the development that was chosen because it is already the property of Brandberg Construction. The 'No-Go option' (meaning

to do nothing) was also considered but decided against as the subdivision of the Portion will lead to the more efficient use of the site with no significant additional negative impact on the prevailing environment. The site was visited several times and any happenings after this are not mentioned in this report. (The assessment was based on the prevailing environmental conditions and not on future happenings on the site.) However, it is assumed that there will be no significant changes to the proposed project, and the environment will not adversely be affected between the compilation of the assessment and the implementation of the proposed activities.

8. ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans, programs and policies deemed to have adverse impacts on the environment require an EIA according to Namibian legislation. The administrative, legal and policy requirements to be considered during the Environmental Assessment for the proposed project are the following:

- The Namibian Constitution
- The Environmental Management Act (No. 7 of 2007)
- The Otjiwarongo Town Planning Scheme
- Other Laws, Acts, Regulations and Policies

THE NAMIBIAN CONSTITUTION

Article 95 of Namibia's constitution provides that:

“The State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at the following:

Management of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future; in particular, the Government shall provide measures against the dumping or recycling of foreign nuclear and toxic waste on Namibian territory.” This article recommends that a relatively high level of environmental protection is called for in respect of pollution control and waste management.

Article 144 of the Namibian Constitution deals with environmental law and it states:

“Unless otherwise provided by this Constitution or Act of Parliament, the general rules of public international agreements binding upon Namibia under this Constitution shall form part of the law of Namibia”. This article incorporates international law, if it conforms to the Constitution, automatically as “law of the land”. These include international agreements, conventions, protocols, covenants, charters, statutes, acts, declarations, concords, exchanges of notes, agreed minutes, memoranda of understanding, and agreements (*Ruppel & Ruppel-Schlichting, 2013*).

CONCLUSION AND IMPACT

In considering the environmental rights, Brandberg Construction should consider the following in devising an action plan in response to the articles:

- Implement a “zero-harm” policy that would guide decisions.
- Ensure that no management practice or decision result in the degradation of future natural resources.
- Take a decision on how this part of the Constitution will be implemented as part of Brandberg Construction’s Environmental Control System (ECS).

ENVIRONMENTAL MANAGEMENT ACT (NO. 7 OF 2007)

The Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) of the Environmental Management Act (No. 7 of 2007) that came into effect in 2012 requires/recommends that an Environmental Impact Assessment Renewal and an Environmental Management Plan Renewal be conducted for the following listed activities in order to obtain an Environmental Clearance Certificate:

LAND USE AND DEVELOPMENT ACTIVITIES

5.2 Establishment of land resettlement schemes

TOURISM DEVELOPMENT ACTIVITIES

6. The construction of resorts, lodges, hotels or other tourism and hospitality facilities.

INFRASTRUCTURE

10.2 The route determination of roads and design of associated physical infrastructure where -

- (a) it is a public road;*
- (b) the road reserve is wider than 30 meters; or*
- (c) the road caters for more than one lane of traffic in both directions.*

Cumulative impacts associated with the development must be included as well as public consultation. The Act further requires all major industries to prepare waste management plans and present these to the local authorities for approval.

The Act, Regulations, Procedures and Guidelines have integrated the following sustainability principles. They need to be given due consideration, particularly to achieve proper waste management and pollution control:

Cradle to Grave Responsibility

This principle provides that those who handle or manufacture potentially harmful products must be liable for their safe production, use and disposal and that those who initiate

potentially polluting activities must be liable for their commissioning, operation and decommissioning.

Precautionary Principle

If there is any doubt about the effects of a potentially polluting activity, a cautious approach must be adopted.

The Polluter Pays Principle

A person who generates waste or causes pollution must, in theory, pay the full costs of its treatment or of the harm, which it causes to the environment.

Public Participation and Access to Information

Notices were placed in local newspapers (Republikein of 31 March and 7 April 2015 and The Namibian of 31 March and 7 April 2015) on two consecutive weeks inviting the public to participate and provide comments on the proposed project. Copies of the newspaper notices are attached to this report. The last date for comments and/or registration was 22 April 2015. See attached comments that were received.

In the context of environmental management, citizens must have access to information and the right to participate in decisions making.

CONCLUSION AND IMPACT

The proposed project site has been assessed in terms of the Environmental Management Act (No. 7 of 2007) and the Regulations (2012). From the assessment, it can be concluded that the activities will have impacts on the prevailing environment but that the negative impacts can be sufficiently mitigated and managed by following the Environmental Management Plan which is part of this document.

OTJIWARONGO TOWN PLANNING SCHEME

The Otjiwarongo Town Planning Scheme (as amended in Otjiwarongo Amendment Scheme No. 15 – approved 26 June 2015) applies to the area as indicated on the scheme maps and corresponds with the Townlands Diagram for Otjiwarongo Town and Townlands. The Remainder of the Consolidated Farm Good Hope No 298 is within the area of the Scheme.

The general purpose of this Scheme is the coordinated and harmonious development of the area of Otjiwarongo (including, where necessary, the reconstruction and redevelopment of any part which has already been subdivided whether there are buildings on it or not) in such a way as will most effectively tend to promote health, safety, order, amenity, convenience and general welfare as well as efficiency and economy in the process of development and improvement of communications, and where it is expedient in order to promote proper planning or development, may provide for the suspending the

operation of any provision of law or any bylaw or regulation made under such law, in so far as such provision is similar to or inconsistent with any of the provisions of the Scheme.

CONCLUSION AND IMPACT

Green Earth Environmental Consultants believe that the stipulations of the Otjiwarongo Town Planning Scheme had been followed and complied with in the assessment of this activity.

Table 1: Other laws, acts, regulations and policies

Laws, Acts, Regulations & Policies consulted:		
Electricity Act (No. 4 of 2007)	In accordance with the Electricity Act (No. 4 of 2007) which provides for the establishment of the Electricity Control Board and provide for its powers and functions; to provide for the requirements and conditions for obtaining licenses for the provision of electricity; to provide for the powers and obligations of licenses; and to provide for incidental matters: the necessary permits and licenses will be obtained.	The Proponent must abide to the Electricity Act.
Pollution Control and Waste Management Bill (guideline only)	The Pollution Control and Waste Management Bill is currently in preparation and is therefore included as a guideline only. Of reference to the mining, Parts 2, 7 and 8 apply. Part 2 provides that no person shall discharge or cause to be discharged, any pollutant to the air from a process except under and in accordance with the provisions of an air pollution license issued under section 23. Part 2 also further provides for procedures to be followed in license application, fees to be paid and required terms of conditions for air pollution licenses. Part 7 states that any person who sells, stores, transports or uses any hazardous substances or products containing hazardous substances shall notify the competent	The Proponent must adhere to the Pollution Control and Waste Management Bill.

	<p>authority, in accordance with subsection (2), of the presence and quantity of those substances. The competent authority for the purposes of section 74 shall maintain a register of substances notified in accordance with that section and the register shall be maintained in accordance with the provisions. Part 8 provides for emergency preparedness by the person handling hazardous substances, through emergency response plans.</p>	
<p>Water Resources Management Act</p>	<p>The Water Resources Management Act (No. 11 of 2013) stipulates conditions that ensure effluent that is produced to be of a certain standard. There should also be controls on the disposal of sewage, the purification of effluent, measures should be taken to ensure the prevention of surface and groundwater pollution and water resources should be used in a sustainable manner.</p>	<p>The Act must be consulted. Fresh water abstraction and waste-water discharge permits should be obtained when required.</p>
<p>Solid and Hazardous Waste Management Regulations: Local Authorities 1992</p>	<p>Provides for management and handling of industrial, business and domestic waste.</p>	<p>The Proponent must abide to the solid waste management provisions.</p>
<p>Hazardous Substances Ordinance (No. 14 of 1974)</p>	<p>The Ordinance applies to the manufacture, sale, use, disposal and dumping of hazardous substances, as well as their import and export and is administered by the Minister of Health and Social Welfare. Its primary purpose is to prevent hazardous substances from causing injury, ill-health or the death of human beings.</p>	<p>The Proponent must abide to the Ordinance's provisions.</p>
<p>Atmospheric Pollution Prevention Ordinance of</p>	<p>Part 2 of the Ordinance governs the control of noxious or offensive gases. The Ordinance prohibits anyone from carrying on a</p>	<p>The proponent should adhere to the stipulations of the Atmospheric Pollution Prevention Ordinance.</p>

Namibia (No. 11 of 1976)	scheduled process without a registration certificate in a controlled area. The registration certificate must be issued if it can be demonstrated that the best practical means are being adopted for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process.	
Nature Conservation Ordinance	The Nature Conservation Ordinance (No. 4 of 1975) covers game parks and nature reserves, the hunting and protection of wild animals, problem animals, fish and indigenous plant species. The Ministry of Environment, Forestry and Tourism (MEFT) administer it and provides for the establishment of the Nature Conservation Board.	The proposed project implementation is not located in a demarcated conservation area, national park or unique environments.
Forestry Act	The Forestry Act (No. 12 of 2001) specifies that there be a general protection of the receiving and surrounding environment. The protection of natural vegetation is of great importance, the Forestry Act especially stipulates that no living tree, bush, shrub or indigenous plants within 100m from any river, stream or watercourse, may be removed without the necessary license.	No removal of protected tree species or removal of mature trees should happen. The Ministry of Environment, Forestry and Tourism should be consulted when required.
EU Timber Regulation: FSC (2013)	Forest Stewardship Council (FSC) came into effect in March 2013, with the aim of preventing sales of illegal timber and timber products in the EU market. Now, any actor who places timber or timber products on the market for the first time must ensure that the timber used has been legally harvested and, where applicable, exported legally from the country of harvest.	The Proponent is advised to adhere to the regulation.
Labour Act	The Labour Act (No. 11 of 2007) contains regulations relating to the Health, Safety and Welfare of employees at work. These	The proponent and contractor should adhere to the Labour Act.

	<p>regulations are prescribed for among others safety relating to hazardous substances, exposure limits and physical hazards. Regulations relating to the Health and Safety of Employees at Work are promulgated in terms of the Labour Act 6 of 1992 (GN156, GG1617 of 1 August 1997).</p>	
Communal Land Rights	<p>Communal land is land that belongs to the State and is held in trust for the benefit of the traditional communities living in those areas. Communal land cannot be bought or sold, but one can be given a customary land right or right of leasehold to a part of communal land in accordance with the provisions of the Communal Land Reform Act (No. 5 of 2002) and Communal Land Reform Amendment Act (No. 13 of 2013). The Communal Land Reform Act provide for the allocation of rights in respect of communal land to establish Communal Land Boards to provide for the powers of Chiefs and Traditional Authorities and boards in relation to communal land and to make provision for incidental matters. Consent and access to land for the proposed project should be requested from the relevant traditional authority through the Regional Council and Regional Communal Land Boards.</p>	<p>Consent should be obtained from Traditional Authorities, Communal Boards, Chiefs, Kings, Queens etc. if required.</p>
Traditional Authorities Act (No. 17 of 1995)	<p>The Traditional Authorities Act (No. 17 of 1995) provide for the establishment of traditional authorities, the designation and recognition of traditional leaders; to define their functions, duties and powers; and to provide for matters incidental thereto.</p>	<p>Traditional Authorities should be consulted when required.</p>
Public and Environmental Health Act	<p>The Public and Environmental Health Act (No. 1 of 2015) provides with respect to matters of public</p>	<p>The proponent and contractor should adhere to the Public and Environmental Health Act.</p>

	health in Namibia. The objects of this Act are to: (a) promote public health and wellbeing; (b) prevent injuries, diseases and disabilities; (c) protect individuals and communities from public health risks; (d) encourage community participation in order to create a healthy environment; and (e) provide for early detection of diseases and public health risks.	
Coronavirus (Covid-19) Pandemic	The current global Coronavirus (Covid-19) pandemic and the associated State of Emergency and health restrictions globally may result in some delays and logistic disruptions. The pandemic might have an impact on obtaining equipment, specialist workforce mobilisation and implementation of the project. The health restrictions may have an impact on campsite set-up, traveling of personal/workers and building of the infrastructure. The proponent, contractor and subcontractors should adhere to all the international, regional and local Covid-19 health restrictions and protocols.	The proponent, contractor and workforce should adhere to the restrictions and regulations.
National Heritage Act (No. 27 of 2004)	All protected heritage resources discovered need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC before it may be relocated. This should be applied from the NHC.	The National Heritage Council should be consulted when required.
National Monuments Act of Namibia (No. 28 of 1969) as amended until 1979	No person shall destroy, damage, excavate, alter, remove from its original site or export from Namibia: (a) any meteorite or fossil; or (b) any drawing or painting on stone or a petroglyph known or commonly believed to have been executed by any people who inhabited or visited Namibia before the year 1900 AD; or	The proposed site for development is not within any known monument site both movable or immovable as specified in the Act, however in such an instance that any material or sites or archeologic importance are identified, it will be the responsibility of the developer to take the required

	<p>(c) any implement, ornament or structure known or commonly believed to have been used as a mace, used or erected by people referred to in paragraph; or</p> <p>(d) the anthropological or archaeological contents of graves, caves, rock shelters, middens, shell mounds or other sites used by such people; or</p> <p>(e) any other archaeological or palaeontological finds, material or object; except under the authority of and in accordance with a permit issued under this section.</p>	<p>route and notify the relevant commission.</p>
<p>Public Health Act (No. 36 of 1919)</p>	<p>Under this act, in section 119: “No person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.”</p>	<p>The proponent will ensure that all legal requirements of the project in relation to protection of the health of their employees and surrounding residents is protected and will be included in the EMP. Relevant protective equipment shall be provided for employees in construction. The development shall follow requirements and specifications in relation to water supply and sewerage handling and solid waste management so as not to threaten public health of future residents on this piece of land.</p>
<p>Soil Conservation Act (No. 76 of 1969)</p>	<p>The objectives of this Act are to:</p> <p>Make provisions for the combating and prevention of soil erosion;</p> <p>Promote the conservation, protection and improvement of the soil, vegetation, sources and resources of the Republic;</p>	<p>Only the area required for the operations should be cleared from vegetation to ensure the minimum impact on the soil through clearance for construction.</p>
<p>Air Quality Act (NO. 39 of 2004)</p>	<p>The Air Quality Act (No. 39 of 2004) intends to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto.</p>	<p>The proponent and contractor should adhere to the Air Quality Act.</p>

Vision 2030 and National Development Plans	Namibia's overall development ambitions are articulated in the Nation's Vision 2030. At the operational level, five-yearly national development plans (NDP's) are prepared in extensive consultations led by the National Planning Commission in the Office of the President. Currently the Government has so far launched a 4th NDP which pursues three overarching goals for the Namibian nation: high and sustained economic growth; increased income equality; and employment creation.	The proposed project is an important element in employment creation.
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CONCLUSION AND IMPACT

It is believed the above administrative, legal and policy requirements which specifically guide and governs development will be followed and complied with in the planning, implementation and operations of the activity.

A flowchart indicating the entire EIA process is shown in the *Figure* below:

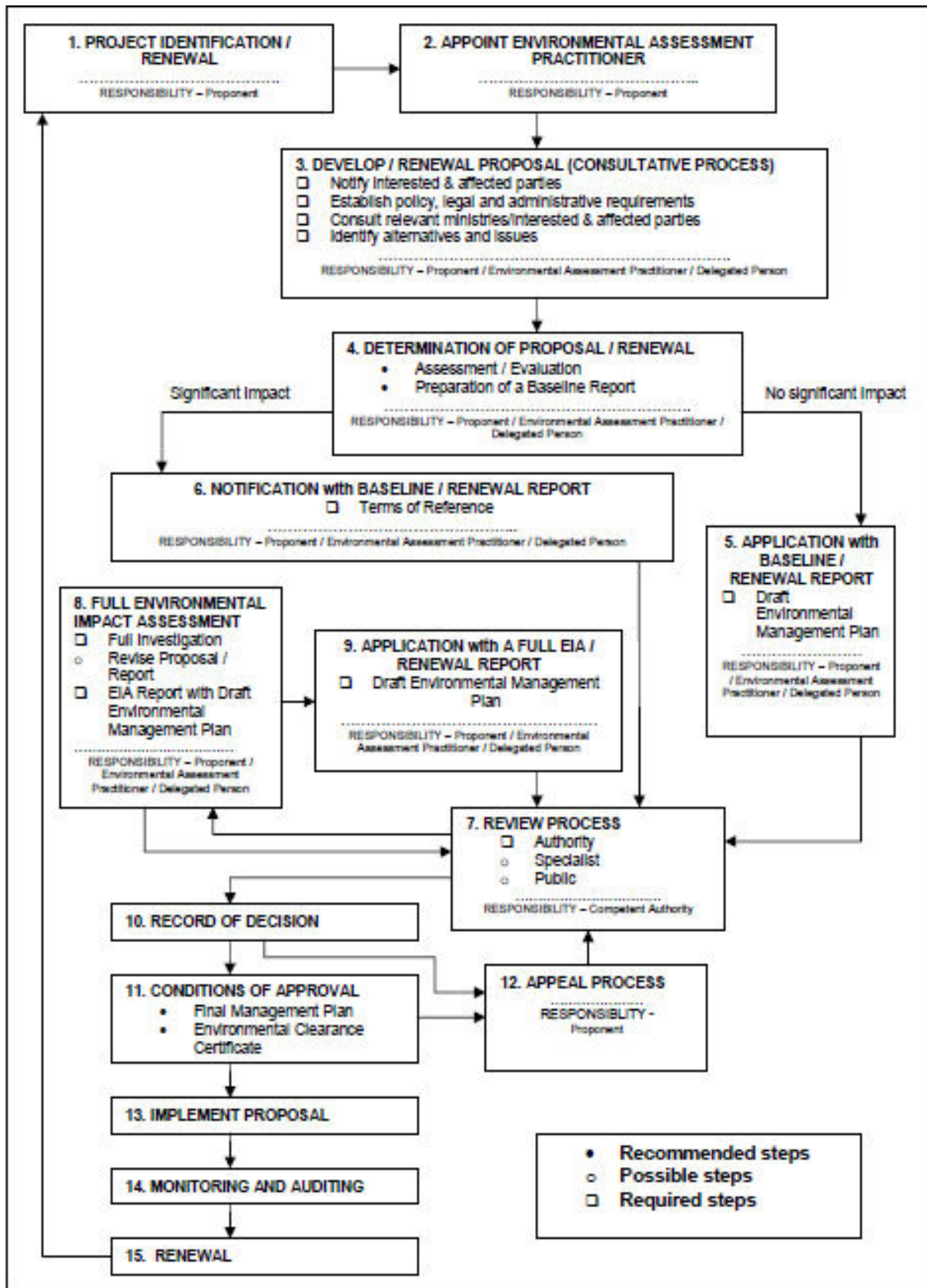


Figure 12: Flowchart of the assessment Process

9. AFFECTED NATURAL AND SOCIAL ENVIRONMENT

9.1. CLIMATE

In broad terms the climate can be described as semi-arid, with summer rainfalls and highest temperatures occurring during October and February. Maximum temperatures recorded in the area vary just under 40 degrees Celsius with an average annual temperature of more than 22 degrees Celsius (*Weather - the Climate in Namibia, 1998 – 2012*).

Rainfall in the form of thunderstorms is experienced in the area during the summer months between October and April. It is further characterised by an average annual rainfall of 450mm in comparison to 250mm for the entire country. Over 70% of the rainfall occurs in the period between November and March with mean annual gross evaporation of 2600-2800mm (*Weather - the Climate in Namibia, 1998 – 2012*).

The prevailing wind direction is expected to prevent the spread of any nuisance namely noise and smell.

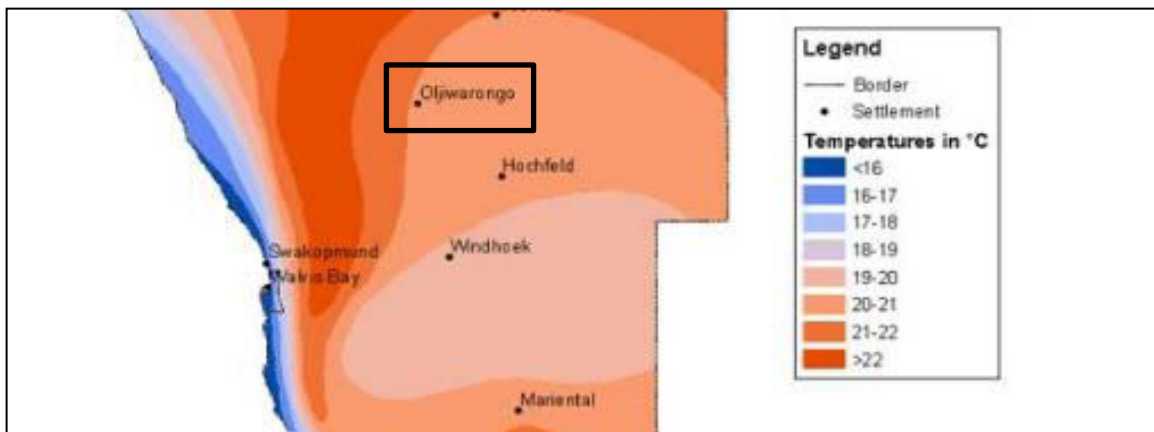


Figure 13: Average temperatures (*Atlas of Namibia Project, 2002*)

CONCLUSION AND IMPACT

The project will not have an impact on the climate.

9.2. GEOLOGY, SOILS AND GEOHYDROLOGY

The Remainder of Consolidated Farm Good Hope No. 298, Otjiwarongo is located in the Khomas Trough on a geological area classified as Damara Supergroup and Gariep Complex. See Map below:

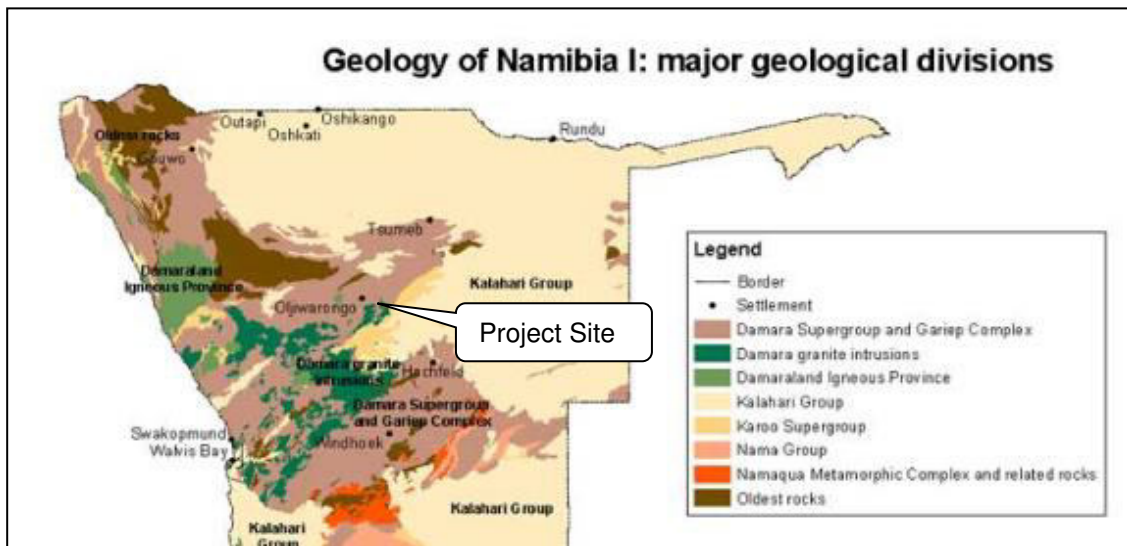


Figure 14: Geology of Namibia (Atlas of Namibia Project, 2002)

The project site is generally even with some higher areas at places. Natural slopes are seen near natural drainage courses on the project site. The soil is suitable for development however the soil is also erodible and should not be cleared unnecessarily from vegetation if not required for the placement of buildings or roads. Unnecessary clearing of soil will lead to erosion.

CONCLUSION AND IMPACT

The development will not impact on the geology, soils and geohydrology of the area. The surface drainage canals will be kept open in order that water can flow through.

9.3. BIODIVERSITY AND VEGETATION

The project site is located in the Tree and Scrub Savanna. The Otjiwarongo area in general contains a large diversity of annual and perennial grass, it is estimated that there is up to 101 grass species. Four of these species are endemic namely *Eragrostis omahekensis*, *Eragrostis scopelophila*, *Pennisetum foermeranum* and *Setaria finite* (Mannheimer & Curtis, 2009). However, these species are not present on the specific site as it has been mostly cleared from vegetation. The natural characteristics of the site namely the vegetation clearance and the destruction of habitats is expected to further on have a low impact on the environment. See map below:

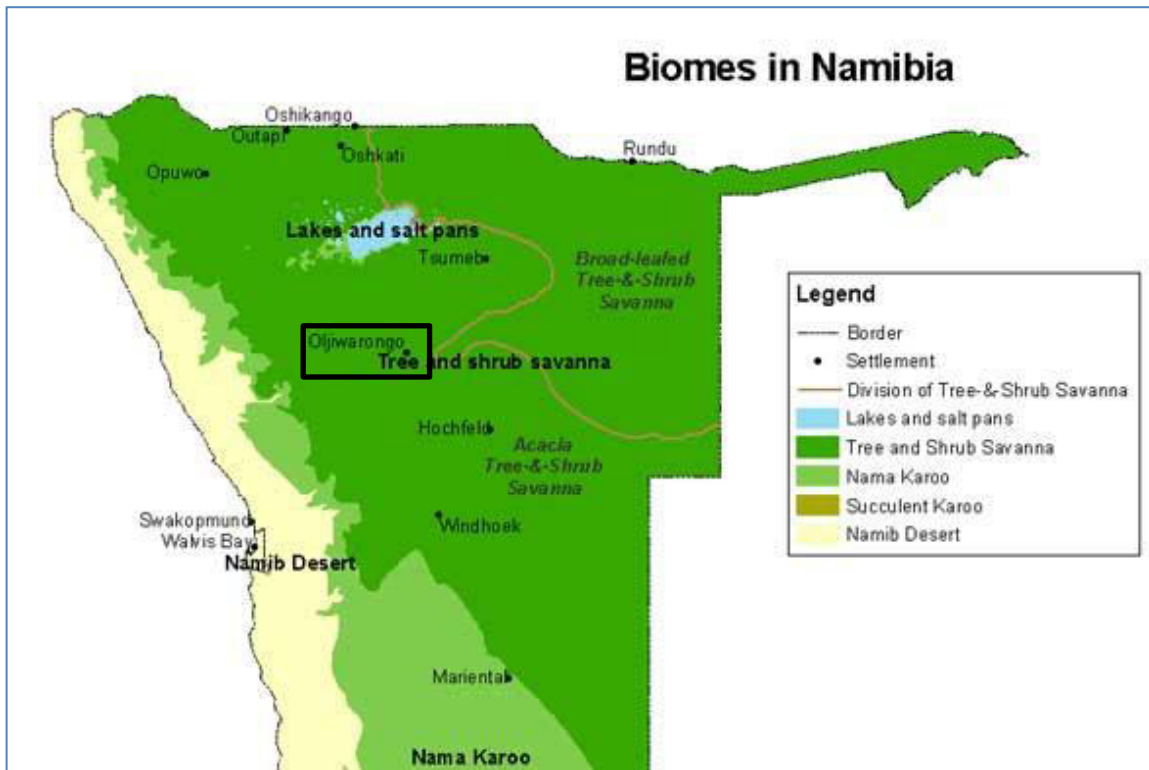


Figure 15: Biomes in Namibia (Atlas of Namibia, 2002)

CONCLUSION AND IMPACT

The development will have a low impact on vegetation, shrubs and trees.

9.4. SOCIAL-ECONOMIC COMPONENT

The proposed development will have a positive impact on the socio-economic environment. Apart from the developer's intention to make a profit out of the proposed development, advantages to the area are numerous. The availability of additional erven will attract more people to the area and that will create the need for more business activities such as medical care, building maintenance, vehicle maintenance, electrical, cabinet making and additional support for our schools and other existing businesses etc.

The proposed project will create various jobs during construction and permanent employment for people after completion. Full time employment opportunities will be created for domestic workers, gardeners and other related work. The development will give the area a much needed economic injection which will have a multiplier effect in the community regarding sales and services. Services that will benefit from this development in Otjiwarongo are amongst others shops, doctors, garages, and plumbers etc. The development will also bring in investments and buying power.

Investors would also see the advantage of establishing manufacturing activities in Otjiwarongo as the availability of staff accommodation would be a favorable factor in their considerations. During construction stages, the building industry will be well supported.

Although the Council will be faced with more demands for services, the revenue from rates and taxes would possibly be sufficient for the Council to become self-sufficient and less of a burden on Government.

Most of all, advantages will be the affordability of erven for the local and national community. For this to be achieved, it is imperative to keep the costs to a minimum in the initial stages. Since the majority of land use in and around the area is characterised by open land, residential and commercial/business related activities, the development will not have a negative impact on the neighbours or the surrounding areas. The socio-economic characteristics of the area in which the project site is located, are in close proximity to existing residential activities.

CONCLUSION AND IMPACT

The activities will have a positive impact on the community since employment will be created.

9.5. CULTURAL HERITAGE

The proposed project site is not known to have any historical significance prior to or after Independence in 1990. The specific area does not have any National Monuments and the specific site has no record of any cultural or historical importance or on-site resemblance of any nature. No graveyard or related article was found in the area. However, the Namibian National Heritage Act (No. 27 of 2004) provides for the protection and conservation of places and objects of heritage significance and the registration of such places and objects and to provide for incidental matters.

CONCLUSION AND IMPACT

No heritage resources or graveyards were observed on the site and in the area.

9.6. SENSE OF PLACE

The Project Site is located inside the already established industrial/business/residential area of the town of Otjiwarongo. The site is also situated in reaching distance to bulk infrastructural networks consisting of roads and electricity. The proposed activities will not have a large/negative impact on the sense of place in the area. An untidy or badly managed site can detract from the ecological well-being and individuality of the area. Unnecessary disturbance to the surroundings could be caused by poorly planned or poorly managed operational activities. The project site should be kept neat and clean where

possible. Vegetation should not be removed or harmed if not necessary since it covers topsoil which prevents erosion. Noise and dust should be limited in the construction phase because of the neighbouring industrial and business activities.

CONCLUSION AND IMPACT

The impact on the sense of place will be low.

9.7. HEALTH

The safety, security and health of the labour force, employees and neighbours are of great importance, workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Personal Protective Equipment). A health and safety officer should be employed to manage, coordinate and monitor risk and hazard and report all health and safety related issues in the workplace. The introduction of external workers into the area is sometimes accompanied with criminal activities posing security risks for neighbours. However, the proponent will take certain measures to prevent any activity of this sort. The welfare and quality of life of the neighbours and workforce needs to be considered for the project to be a success on its environmental performance. Conversely, the process should not affect the overall health of persons related to the project including the neighbours.

CONCLUSION AND IMPACT

The activity will have a low impact on the health of the affected community.

10. IMPACT ASSESSMENT AND EVALUATION

The Environmental Impact Assessment Renewal sets out potential positive and negative environmental impacts associated with the project site. The following assessment methodology will be used to examine each impact identified, see *Table* below:

Table 2: Impact Evaluation Criterion (DEAT 2006)

Criteria	Rating (Severity)	
Impact Type	+	Positive
	0	No Impact
	-	Negative
	L	Low (Little or no impact)

Significance of impact being either	M	Medium (Manageable impacts)
	H	High (Adverse impact)

Probability:	Duration:
5 – Definite/don't know	5 - Permanent
4 – Highly probable	4 – Long-term (impact ceases)
3 – Medium probability	3 – Medium term (5 – 15 years)
2 – Low probability	2 – Short-term (0 – 5 years)
1 – Improbable	1 - Immediate
0 - None	
Scale:	Magnitude:
5 – International	10 – Very high/don't know
4 – National	8 - High
3 – Regional	6 - Moderate
2 – Local	4 - Low
1 – Site only	2 - Minor
	0 - None

The impacts on the receiving environment are discussed in the paragraphs below:

10.1. IMPACTS DURING THE OPERATIONAL PHASE

10.1.1. ECOLOGICAL IMPACTS

Staff and visitors should only make use of walkways and existing roads to minimise the impact on vegetation. Minimise the area of disturbance by restricting movement to the designated working areas during maintenance and drives.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Ecology Impacts	-	1	2	4	2	M	L

10.1.2. DUST POLLUTION AND AIR QUALITY

Vehicles transporting goods and staff will contribute to the release of hydrocarbon vapours, carbon monoxide and sulphur oxides into the air. Possible release of sewer odour, due to sewer system failure or maintenance might also occur. All maintenance of bulk services and infrastructure at the project site has to be designed to enable environmental protection.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust & Air Quality	-	2	2	4	4	M	L

10.1.3. CONTAMINATION OF GROUNDWATER

Spillages might also occur during maintenance of the sewer system. This could have impacts on groundwater especially in cases of large sewer spills. Proper containment should be used in cases of sewerage system maintenance to avoid any possible leakages. Oil and chemical spillages may have a health impact on groundwater users. Potential impact on the natural environment from possible polluted groundwater also exists.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Groundwater contamination	-	2	2	4	2	M	L

10.1.4. GENERATION OF WASTE

Household waste from the activities at the site and from the staff working at the site will be generated. This waste will be collected, sorted to be recycled and stored on site for transportation and disposal at an approved landfill site.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Waste Generation	-	1	2	2	2	M	L

10.1.5. FAILURE IN RETICULATION PIPELINES

There may be a potential release of sewage, stormwater or water into the environment due to pipeline/system failure. As a result, the spillage could be released into the

environment and could potentially be health hazard to surface and groundwater. Proper reticulation pipelines and drainage systems should be installed. Regular bulk services infrastructure and system inspection should be conducted.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Failure of Reticulation Pipeline	-	1	1	4	2	M	L

10.1.6. FIRES AND EXPLOSIONS

There should be sufficient water available for firefighting purposes. Ensure that all fire-fighting devices are in good working order and are serviced. All personnel have to be trained about responsible fire protection measures and good housekeeping such as the removal of flammable materials on site. Regular inspections should be carried out to inspect and test firefighting equipment by the contractor.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Fires and Explosions	-	2	1	4	2	M	L

10.1.7. HEALTH, SAFETY AND SECURITY

The safety, security and health of the labour force, employees and neighbours are of great importance, workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Personal Protective Equipment). Workers should be warned not to approach or chase any wild animals occurring on the site. No open flames, smoking or any potential sources of ignition should be allowed at the project location. Signs such as 'NO SMOKING' must be prominently displayed in parts where inflammable materials are stored on the premises.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Safety & Security	-	1	2	4	2	M	L

10.2.CUMULATIVE IMPACTS

These are impacts on the environment, which results from the incremental impacts of the construction and operation of the development when added to other past, present, and

reasonably foreseeable future actions regardless of which person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. In relation to an activity, it means the impact of an activity that in it may not become significant when added to the existing and potential impacts resulting from similar or diverse activities or undertakings in the area.

Possible cumulative impacts associated with the proposed construction include: sewer damages/maintenance, uncontrolled traffic and destruction of the vegetation or the environment. These impacts could become significant especially if it is not properly supervised and controlled. This could collectively impact on the environmental conditions in the area. Cumulative impacts could occur in both the operational and the construction phase.

Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Cumulative Impacts	-	2	3	4	2	M	L

11. CONCLUSION

In line with the Environmental Management Act (No 7 of 2007), *Green Earth Environmental Consultants* have been appointed to conduct an Environmental Impact Assessment Renewal for the development of the Remainder of Consolidated Farm Good Hope No 298, Otjiwarongo, Otjozondjupa Region.

Negative impacts that can be associated with the development are most likely to include: production of solid waste, dust emissions, atmospheric emissions, noise pollution, movement of soils, increased wastewater generation, the disruption of groundwater from the foundation or other structures, can result in an increase in traffic on the nearby roads and there can be an impact on the occupational health and safety of workers. However, this project is believed to be an asset to this area. Facilities and employment will be made available for which there is a need.

After assessing all information available on this project, *Green Earth Environmental Consultants* believe that the development is required.

12. RECOMMENDATION

It is therefore recommended that the Ministry of Environment, Forestry and Tourism through the Environmental Commissioner support and approve the Environmental Clearance Renewal for the development of the Remainder of Consolidated Farm Good Hope No 298, Otjiwarongo, Otjozondjupa Region and for the following listed activities:

LAND USE AND DEVELOPMENT ACTIVITIES

5.2 Establishment of land resettlement schemes

TOURISM DEVELOPMENT ACTIVITIES

6. The construction of resorts, lodges, hotels or other tourism and hospitality facilities.

INFRASTRUCTURE

10.2 The route determination of roads and design of associated physical infrastructure where -

(a) it is a public road;

(b) the road reserve is wider than 30 meters; or

(c) the road caters for more than one lane of traffic in both directions.

LIST OF REFERENCES

Commencement of the Environmental Management Act, 2012. *Ministry of Environment, Forestry and Tourism*. Windhoek. Namibia, pp. 3 – 22.

Constitution of the Republic of Namibia, 1990. National Legislative Bodies. Namibia, pp. 6 – 63.

Environmental Management Act, 2007. *Ministry of Environment, Forestry and Tourism*. Windhoek. Namibia, pp. 4 - 32.

Forestry Act, 2001. *Office of the Prime Minister*. Windhoek. Namibia, pp. 9 – 31.

Mannheimer, C. & Curtis, B. 2009. *Le Roux and Muller's Guide to the Trees & Shrubs of Namibia*. Windhoek: Macmillan Education Namibia, pp. 249 – 439.

Namibian Environmental Assessment Policy, 1995. *Ministry of Environment, Forestry and Tourism*. Windhoek. Namibia, pp. 3 – 7.

Nature Conservation Ordinance, 1975. Windhoek. Namibia, pp. 4 – 47.

Rushborrok, P. 2001. Guidance on minimum approaches for improvements to existing Municipal Waste Dumpsites, *WHO Regional Office for Europe*, Copenhagen, Denmark.

Soil Conservation Act, 1969. *Office of the Prime Minister*. Windhoek. Namibia, pp. 1 – 14.

Water Resource Management Act, 2004. *Office of the Prime Minister*. Windhoek. Namibia, pp. 6 – 67.

APPENDIX A: CURRICULUM VITAE OF CHARLIE DU TOIT

1. **Position:** Environmental Practitioner
2. **Name/Surname:** Charl du Toit
3. **Date of Birth:** 29 October 1960
4. **Nationality:** Namibian

5. **Education:**

Name of Institution	University of Stellenbosch, South Africa		
Degree/Qualification	Hons B (B + A) in Business Administration and Management		
Date Obtained	1985-1987		
Name of Institution	University of Stellenbosch, South Africa		
Degree/Qualification	BSc Agric Hons (Chemistry, Agronomy and Soil Science)		
Date Obtained	1979-1982		
Name of Institution	Boland Agricultural High School, Paarl, South Africa		
Degree/Qualification	Grade 12		
Date Obtained	1974-1978		

6. **Membership of Professional Association:** EAPAN Member (Membership Number: 112)

7. **Languages:**

	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
English	Good	Good	Good
Afrikaans	Good	Good	Good

8. **Employment Record:**

<u>From</u>	<u>To</u>	<u>Employer</u>	<u>Position(s) held</u>
2009	Present	Green Earth Environmental Consultants	Environmental Practitioner
2005	2008	Elmarie Du Toit Town Planning Consultants	Manager
2003	2005	Pupkewitz Megabuild	General Manager
1995	2003	Agra Cooperative Limited	Manager Trade
1989	1995		Chief Agricultural Consultant

		Namibia	
		Development	Agricultural
1985	1988	Corporation	Researcher
		Ministry of	
		Agriculture	

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.



Charl du Toit

APPENDIX B: CURRICULUM VITAE OF CARIEN VAN DER WALT

1. **Position:** Environmental Consultant
2. **Name/Surname:** Carien van der Walt
3. **Date of Birth:** 6 August 1990
4. **Nationality:** Namibian

5. **Education:**

Institution	Degree/Diploma	Years
University of Stellenbosch	B.A. (Degree) Environment and Development	2009 to 2011
University of South Africa	B.A. (Honours) Environmental Management	2012 to 2013

6. **Membership of Professional Associations:**

EAPAN Member (Membership Number: 113)

7. **Languages:**

Language	Speaking	Reading	Writing
English	Good	Good	Good
Afrikaans	Good	Good	Good

8. **Employment Record:**

From	To	Employer	Positions Held
07/2013	Present	Green Earth Environmental Consultants	Environmental Consultant
06/2012	03/2013	Enviro Management Consultants Namibia	Environmental Consultant
12/2011	05/2012	Green Earth Environmental Consultants	Environmental Consultant

9. **Detailed Tasks Assigned:**

Conducting the Environmental Impact Assessment, Environmental Management Plan, Public Participation, Environmental Compliance and Environmental Control Officer

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engage.

Carien van der Walt

APPENDIX C: ENVIRONMENTAL MANAGEMENT PLAN