



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

Opuwo Town Council
P. O. Box 294, Opuwo

TO UNDERTAKE THE FOLLOWING LISTED ACTIVITY

**TOWNSHIPS ON PORTION B OF THE REMAINDER OF
FARM OPUWO TOWNLANDS NO. 1115 AND PORTION Y
OF THE REMAINDER OF OPUWO TOWNLANDS NO. 876 (AS AMENDED),
KUNENE REGION.**

Issued on the date: **2021-04-19**
Expires on this date: **2024-04-19**

ENVIRONMENTAL COMMISSIONER
22 APR 2022
MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM
Private Bag 13300
WINDHOEK, NAMIBIA

(See conditions printed over leaf)

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REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM

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Cnr Robert Mugabe &
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Namibia

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

NOTIFICATION OF DECISION

REF NUMBER: ECC 01308

DATE OF ISSUE: 19 APRIL 2021

DETAILS OF PROPONENT:

Opuwo Town Council
P. O. Box 294
Opuwo
Namibia

Dear Sir/ Madam

SUBJECT: NOTIFICATION ON APPLICATION FOR ENVIRONMENTAL CLEARANCE TO UNDERTAKE THE PROPOSED LISTED ACTIVITY: TOWNSHIPS ON PORTION B OF THE REMAINDER OF FARM OPUWO TOWNLANDS NO. 1115 AND PORTION Y OF THE REMAINDER OF OPUWO TOWNLANDS NO. 876 (AS AMENDED), KUNENE REGION.

Notice is herewith given in accordance with section 37(2) of the Environmental Management Act, Act 7 of 2007 and Environmental Impact Assessment Regulations of 2012 (GG 4878): that a decision in respect to your application No. **APP 2110** for Environmental Clearance Certificate to undertake a listed activity has been reached.

DECISION

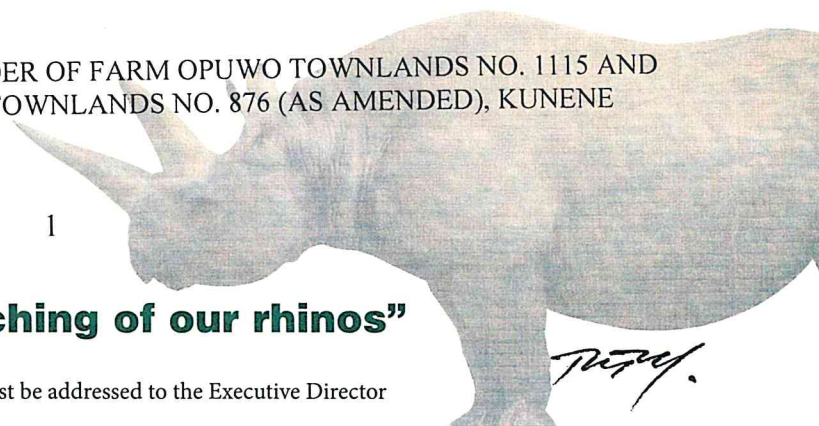
An Environmental Clearance Certificate (ECC) to undertake the listed activities specified in the environmental assessment report and draft management plan dated November 2020, is granted (**ECC 01308**). The applicant / proponent is therefore advised to comply with conditions of approval set out in **Section C** of this notification.

A. DETAILS OF THE PROPOSED ACTIVITY

A1: TITLE OF THE PROPOSED ACTIVITY

TOWNSHIPS ON PORTION B OF THE REMAINDER OF FARM OPUWO TOWNLANDS NO. 1115 AND PORTION Y OF THE REMAINDER OF OPUWO TOWNLANDS NO. 876 (AS AMENDED), KUNENE REGION.

“Stop the poaching of our rhinos”



A2: DETAILS OF ASSESSMENT PRACTITIONER

Urban Dynamics Town & Regional Planners

Ernst Simon
P O Box 20837, Windhoek
Tel: +264 61 240300
Email: Ernst@udanam.com

A3: LOCATION OF PROPOSED ACTIVITY

(Annexure A – proposed site map)

B. RELEVANT LISTED ACTIVITIES

Legislation	Description of Listed Activity	Relevance to Proposed Activity
Regulation 29(sub-regulation 5) of Government Notice No. 29 of 2012	INFRASTRUCTURE 10.1 The construction of- (a) oil, water, gas and petrochemical and other bulk supply pipelines; (b) public roads; (c) railways and harbours; (d) airports and airfields; (e) any structure below the high water mark of the sea; (f) cableways; (g) communication networks including towers, telecommunication and marine telecommunication lines and cables; (h) motor vehicle and motorcycle racing and test tracks; (i) the outdoor racing sites of motor powered vehicles including - (i) motorcars; (ii) trucks; (iii) motorcycles; (iv) quad bikes; (v) boats; and (vi) jet skis; (j) masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding - (i) flag poles; and (ii) lightning conductor poles. 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.	TOWNSHIPS ON PORTION B OF THE REMAINDER OF FARM OPUWO TOWNLANDS NO. 1115 AND PORTION Y OF THE REMAINDER OF OPUWO TOWNLANDS NO. 876 (AS AMENDED), KUNENE REGION.



C. CONDITIONS

C1: Conditions of Approval

1. This certificate does not in any way hold the Ministry of Environment and Tourism accountable for misleading information, nor any adverse effects that may arise from these activities. Instead, full accountability rests with the proponent and its consultants.
2. This Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project.
3. Regular environmental monitoring and evaluations on environmental performance should be conducted. Targets for improvements should be established and monitored throughout this process.
4. This environmental clearance is valid for a period of 3 (three) years, from the date of issue unless withdrawn by this office.

C2: Clearance Certificate Validity

1. On expiry of the ECC, the proponent is required to submit within a period not exceeding one month, and in the prescribed form and manner an application to the Office of the Environmental Commissioner for the renewal of the ECC.
2. Failure to renew an expired environmental clearance certificate shall result in permanent termination of the environmental clearance certificate.
3. In terms of Section 3 (2)C of the Environmental Impact Assessment, you are instructed to, within 14 days of this notice issuance date, ensure that all registered interested and affected parties (“ I&APs”) are notified that an environmental clearance certificate has been issued in respect to your application and of their right to appeal

C3: Compliance with authorization under other laws

4. All other applicable and required permits or authorization from relevant competent authorities must be obtained prior to commencing the proposed activities and accordingly adhered to.

C4: Implementation and Monitoring

5. The granting of the Environmental Clearance Certificate (ECC) constitute, an approval for the implementation of mitigation measures proposed in your approved Environmental Management Plan (EMP), hence making the approved EMP legally binding document.
6. The proponent shall appoint a suitably experienced environmental control officer, or site agent where appropriate, before the commencement of any listed activities to ensure compliance with the conditions of approval and mitigation stipulated in the approved EMP
7. A copy of the Environmental Clearance Certificate (ECC), EMP, Environmental Audit and monitoring reports must be kept at the site of the authorized activity and readily available for inspection by officials of the Ministry and registered Interested and affected Parties (I&APs) on request.



8. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the National Heritage Council of Namibia. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from National Heritage Council.
9. Using the best and affordable methodology, the Proponent must ensure that all listed activity's operations footprints are thoroughly rehabilitated prior to closure of the operation. Wherever possible, the Proponent must proceed with the rehabilitation process concurrently with the progression of the project rather than wait until the damage is far beyond the available means of management.
10. The general standard for all rehabilitation processes must at all costs aim at restoring the natural character of the environment to the satisfaction of the Ministry of Environment and Tourism. Such rehabilitation processes shall be inspected and certified satisfactory or unsatisfactory by the Ministry of Environment and Tourism. Where a certificate of unsatisfactory is issued, the Proponent shall be advised to carry-out certain tasks to meet the requirements. Failure to meet the basic rehabilitation requirements shall be regarded by this Ministry as a breach of this contract and of which serious consequences shall follow.
11. Officials of the environmental commissioner's office may from time-to-time conduct spot-inspection (non-auditing) without prior notice and or Auditing Inspection (dates to be agreed prior to arrival to the site), hence access to the site and the aforementioned documentation must be granted to any authorized official representing the Office of the Environmental Commissioner and Registered Interested and Affected Parties (I&APs)
12. Any changes to, or deviations from the scope of the alternative described in section B above must be accepted or approved, in writing, by the Office of the Environmental Commissioner before such changes or deviations may be implemented. In assessing whether to grant such acceptance/ approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorization in terms of the applicable legislation.
13. Officials representing the Office of the Environmental Commissioner must be, in possession and or by request and for the purpose of inspection referred to in C4(11) present their staff identification card in order to gain entry to the premises
14. The proponent is required, from the date of commencing implementation of project activities, to compile and submit environmental monitoring reports (on project progress and the environmental management profile) on a bi-annual basis to Office of Environmental Commissioner
15. Any changes to, or deviations from the scope of project activities approved in respect to the assessment received and reviewed for the purpose or granting this ECC Number (**ECC 01308**) are subject to an amendment application and approval by the Environmental Commissioner prior to adopting / implementing any such changes / deviations.
16. For the purpose of amending and or transferring the ECC, the proponent submit in the prescribed form and manner an application to the Office of the Environmental Commissioner, clearly indicating the need for amendment and or transfer of the ECC



17. Non-compliance with a condition of this Environmental Clearance Certificate or EMP may render the Proponent liable to criminal prosecution.

D. DISCLAIMER

1. The decision taken by the Office of Environmental Commission is based mainly on information provided by the proponent or their representative, therefore, it must be noted here that the proponent is accountable for any wrong and misleading information that may have been presented in the environmental assessment documents.

Yours sincerely,



Private Bag 13306
WINDHOEK, NAMIBIA
22 APR 2022

Timoteus Mufeti
ENVIRONMENTAL COMMISSIONER



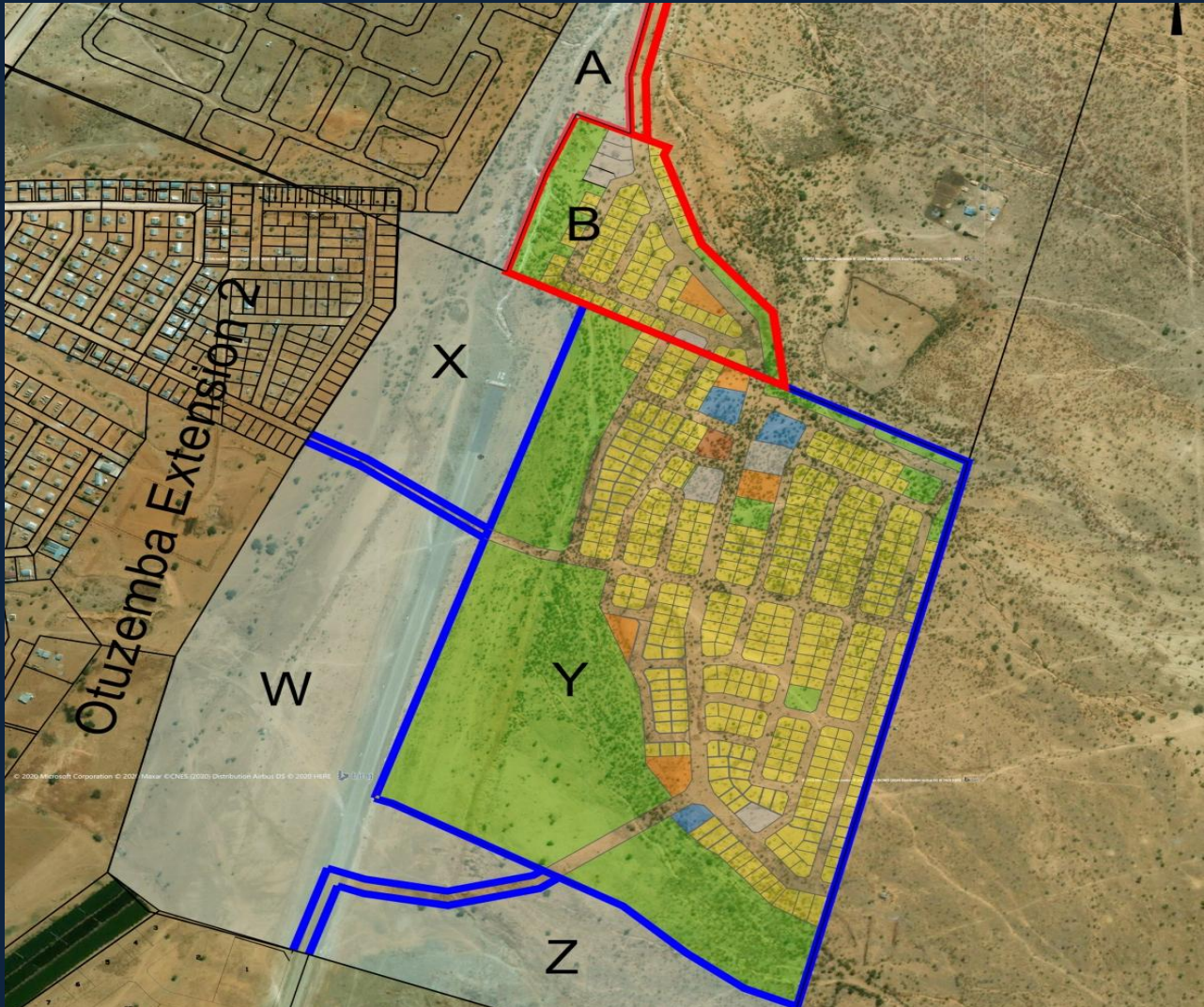
ANNEXURE A: SITEMAP / SITE LAYOUT



APPROVED
24 APR 2022
ENVIRONMENTAL COMMISSIONER
REPUBLIC OF NIGERIA

APPLICATION FOR ENVIRONMENTAL CLEARANCE:

SCOPING REPORT FOR THE PROPOSED ESTABLISHMENT OF TOWNSHIPS ON PORTION B OF THE REMAINDER OF FARM OPUWO TOWNLANDS NO. 1115 AND PORTION Y OF THE REMAINDER OF OPUWO TOWNLANDS NO. 876



PROPONENT:

CLIENT:

Opuwo Town Council
P O Box 00
Opuwo
Namibia



DEVELOPMENT WORKSHOP NAMIBIA
P O Box 40723
AUSSPANNPLATZ
WINDHOEK
NAMIBIA



SUBMISSION:

CONSULTANT:

MINISTRY OF ENVIRONMENT FORESTRY AND
TOURISM
PRIVATE BAG 13306
WINDHOEK
NAMIBIA

URBAN DYNAMICS AFRICA
P O Box 20837
WINDHOEK
NAMIBIA

REFERENCE: 1196
ENQUIRIES: HEIDRI BINDEMANN-NEL
TRESIA AMWAALWA
JOHANN OPPERMAN

TEL: +264-61-240300
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DEVELOPMENT ROLE PLAYERS:

Opuwo Town Council

P O Box 294

Opuwo

NAMIBIA



DEVELOPMENT WORKSHOP NAMIBIA

P O Box 40723

AUSSPANPLATZ

WINDHOEK

NAMIBIA



SCOPING REPORT FOR THE ESTABLISHMENTS OF TOWNSHIPS AT OPUWO, PREPARED BY

URBAN DYNAMICS AFRICA

P O Box 20837

WINDHOEK

NAMIBIA



GENERAL LOCATION DESCRIPTION OF THE DEVELOPMENT AREA:

DESCRIPTOR:	LOCATION SPECIFICS:
NATURE OF ACTIVITIES:	The construction of infrastructure through Township Establishments.
REGION:	Kunene Region
LOCAL AUTHORITY:	Opuwo Town Council
FALL WITHIN:	
PORTION B	of the Remainder of the Farm Opuwo Townlands No. 1115
PORTION Y	of the Remainder of Farm Opuwo Townlands No. 867
NEAREST TOWNS / CITY:	Opuwo
SIZE OF PORTION B	4.01 sqm
SIZE OF PORTION Y	41.638 Ha
LAND USE:	Undetermined
STRUCTURES:	Yes
HISTORICAL RESOURCE LISTINGS:	No
CEMETERY:	No
FLOODLINES:	Yes
ENVIRONMENTAL SIGNIFICANT AREA:	<ul style="list-style-type: none"> ❖ Mopani Woodlands; and ❖ Smaller Ephemeral Rivers
LATITUDE:	-18.048023
LONGITUDE:	13.860819
RELEVANT LISTED ACTIVITIES:	<p>The Environmental Management Act (Act 7 of 2007),</p> <p>Section 8. Water Resource Developments;</p> <p style="padding-left: 40px;">8.8. Construction and other activities in watercourses within flood lines;</p> <p style="padding-left: 40px;">8.9. Construction and other activities within a catchment area;</p> <p>Section 10. Infrastructure</p> <p style="padding-left: 40px;">10.1. The construction of-</p> <p style="padding-left: 80px;">10.1. (b) public roads;</p> <p style="padding-left: 40px;">10.2. Route determination of roads and design of associate physical infrastructure where-</p> <p style="padding-left: 80px;">10.2 (a) public roads.</p>

ABBREVIATION:	DESCRIPTION:
am	ANTE MERIDIEM / BEFORE MIDDAY
Av	AVENUE
BID	BACKGROUND INFORMATION DOCUMENT
DEM	DIGITAL ELEVATION MODEL
DWN	DEVELOPMENT WORKSHOP NAMIBIA
ER	EMPLOYERS REPRESENTATIVE
EA	ENVIRONMENTAL ASSESSMENT
EC	ENVIRONMENTAL COMMISSIONER
ECO	ENVIRONMENTAL CONTROL OFFICER
EMP	ENVIRONMENTAL MANAGEMENT PLAN
Etc.	ET CETERA / OTHER SIMILAR THINGS
e.g.	EXEMPLI GRATIA
FEMO	FLOOD EMERGENCY MANAGEMENT OFFICE
FRMP	FLOOD RISK MANAGEMENT PLAN
HIV	HUMAN IMMUNODEFICIENCY VIRUS
i.e.	ID EST. / IN OTHER WORDS
I&APs	INTERESTED AND AFFECTED PARTIES
KP	Knight Pièsold
NBD	THE NAMIBIA BIODIVERSITY DATABASE
NHC	NAMIBIAN HEALTH CARE
NAMPAB	NAMIBIAN PLANNING ADVISORY BOARD
pm	POST MERIDIEM / AFTER MIDDAY
SME	SMALL-AND-MEDIUM-SIZED ENTERPRISE
TRRP	TREE REMOVAL AND REPLACEMENT PLAN
TB	TUBERCULOSIS
WMP	WASTE MANAGEMENT PLAN
UNIT SYMBOL:	UNIT DESCRIPTION:
0°	DEGREES CELSIUS
E	EAST
ha	HECTARES
Km	KILOMETRE
m	METER
mm	MILLIMETRE
S	SOUTH
m ²	SQUARE METERS
%	PERCENTAGE

The DWN has had deliberations with the Opuwo Town Council for new portions of the Remainder of Farm Opuwo Townlands No. 1115 and the Remainder of Opuwo Townlands No. 876 to assist the Council with the provision of low-cost housing via a high-density residential township that caters for the low-income residents of Opuwo

As a result, the DWN approached Urban Dynamics to

- obtain approval for the subdivision of the Remainder of Farm Opuwo Townlands No. 1115 and the Remainder of Opuwo Townlands No. 876,
- submit a need and desirability application to the Ministry of Urban and Rural Development for the establishment of townships on two of the subdivided land and
- obtain approval for the layouts of the two new Townships.

For the purpose of obtaining approval from the Ministry of Urban and Rural Development through the Urban and Regional Planning Board, an Environmental Clearance Certificate must first be obtained from the Ministry of Environment, Forestry and Tourism.

3 PURPOSE OF THE REPORT

In terms of the Regulations of the Environmental Management Act (Act 7 of 2007), Township Establishment is not a listed activity. Although Section 27 of the Act lists land use and transformation as an area within which activities may be listed, the Honourable Minister chose not to list Township Establishment as one such activity.

However, Urban Dynamics acknowledges that Township Establishment may, in some cases, have unacceptable environmental impacts, but that impacts are generally limited since it is mostly done to extend existing urban areas by way of laying out new erven on Townlands already earmarked for urban development. To ensure that there are no unacceptable or unmitigated environmental and social impacts, Urban Dynamics, as a matter of course, provides the Environmental Commissioner (EC) with a baseline report. This report will enable him to screen the project and determine whether a clearance certificate can be issued, or a full assessment is required. A copy of the minutes of the meeting with the Environmental Commissioner wherein this modus operandi was agreed is attached as (**Appendix "D.2"**).

4 NATURE OF THE ACTIVITY

The purpose of the application is to obtain approval from the Ministry of Environment and Tourism in terms of

Section 8. Water Resource Developments:

8.8. Construction and other activities in watercourses within flood lines;

8.9. Construction and other activities within a catchment area;

Section 10. Construction of Infrastructure:

10.1 The construction of –

(b) public roads;

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

(a) it is a public road;

This report documents the baseline information necessary to enable the EC to screen this project and issue an Environmental Clearance Certificate in terms of **Section 33 of the Environmental Management Act (Act 7 of 2007)**.

This report also deals with the nature of the project, identifies the potential impacts that may be expected and the mitigation measures which will be implemented to deal with those impacts.

5 LEGISLATION

The following table provides the legislative framework against which the application should be assessed:

STATUTE	PROVISIONS	PROJECT IMPLICATIONS
<p>THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, 1990:</p>	<p>The state shall actively promote and maintain the welfare of the people by adopting, inter-alia, policies aimed at the following:</p> <p>(i) <i>management of ecosystems, essential ecological processes and biological diversity of Namibia and utilisation of living natural resources on a sustainable basis for the benefit of all.</i></p>	<p>Ensure that the ecological integrity of the ecosystems of the area is protected.</p>
<p>ENVIRONMENTAL MANAGEMENT:</p>	<p><i>Environmental Management Act No.7 of 2007:</i></p> <p><i>EIA Regulation (EIAR) GN 57/2007 (GG 3212):</i></p> <p>In terms of Section 10.1(a), 10.1(b), 10.2(a), and 10.2(c) for environmental clearance for the construction of oil, water, gas and petrochemical and other bulk supply pipelines, the construction of public roads and the construction of a road with more than one lane of traffic in both directions.</p> <p>In terms of Section 8.8, 8.10 and 8.11, for construction and other activities in watercourses within flood lines, the reclamation of land from below or above the high-water and the alteration of natural wetlands are listed activities.</p> <p>Prescribes the procedures to be followed for authorisation of the project (i.e. Environmental clearance certificate).</p>	<p>Evaluate if the alignment of the street will impact on the social and natural environment.</p> <p>Determine if the risk of flooding of the erven is at acceptable levels.</p> <p>Determine if proposed limited infill would impact the function of the watercourse or cause flooding elsewhere.</p> <p>Determine how wastewater pipelines in the riverbed should be designed, constructed and maintained to prevent groundwater and other pollution.</p>

<p>WATER AND RESOURCES MANAGEMENT:</p>	<p><i>The Water Act No. 54 of 1956 and Water Resources and Management Act No.27 of 2007 Section 92:</i></p> <p>Section 92 (1), A person may not engage in any construction work or activity that causes or is likely to cause, the natural flow conditions of water in to or from a watercourse to be modified, unless the Minister has granted prior written approval for the work or activity to be carried out.</p> <p>Section 100 (e) consult with the regional Council or local authority in determining the geographic extent of flood plain areas in its region or local authority, as the case may be, and assist any such councils in regulating the development and use of land within floodplain areas</p> <p>Section 100 (f) prescribe measures for control and management of storm and flood risk within local authority areas.</p> <p>Section 101 (b) development on the banks of any wetland or dam; and</p> <p>Section 101 (c) the removal of rocks, sand or gravel or any other material from a watercourse.</p>	<p>Assess the potential risk that the planned activities may have on both the watercourse on the one hand and future occupants of the land on the other.</p>
<p>THE PUBLIC HEALTH AND HEALTH AND SAFETY REGULATIONS:</p>	<p><i>The Public Health Act 36 of 1919 as amended and the Health and Safety Regulations:</i></p> <p>These acts control the existence nuisances such as litter that can cause a threat to the environment and public health.</p>	<p>Prevent activities which can have an impact on the health and safety of the public.</p>

6 METHODOLOGY

The following section discusses the methodology used by Urban Dynamics Africa (UDA) in assessing the site in terms of its strengths, weaknesses, opportunities, and threats and to then formulate a planning approach to prepare a layout which harnesses the strengths, accommodate the weaknesses, utilise the opportunities and avoid the threats identified. These also include the natural and social environment within which the project is set.

6.1 TOPOGRAPHY AND SITE INFORMATION

In terms of obtaining an accurate topographical base map and aerial survey images, a registered land surveyor was appointed by Development Workshop of Namibia to survey the site during February 2020. In addition to contour survey, 5 m contours data was obtained from the Surveyors Generals office.

DWN appointed Knight Pièsold consulting (KP) to create a 1 to 21-year flood analysis of the project site. KP made use of HEC RAS software, to model a 2 Dimensional hydrodynamic numerical model of the project areas flood area. Find attached the flood analysis for the site as **Appendix "E"**.

Site information was obtained by means of a site visit of the area and aerial photography. A site visit was conducted in May 2020 by UDA, KP, NamWater with a senior representative of the Opuwo Town Council and DWN. The site visit identified four structures, rivers, and some crop fields within the project area.

6.2 NATURAL RECEIVING ENVIRONMENT

The UDA team conducted an environmental screening for the affected area in March 2020. The team used orthophoto analysis, a site visit, literature surveys and extensive personal experience of the region.

Data sources used include:

- Atlas of Namibia (Mendelsohn et. al, 2002).
- Kunene Regional Development Profile (Kunene Regional Council,2015)
- Opuwo low-cost residential development: Flood Analysis (Knight Pièsold Consulting., 2020)

6.3 PUBLIC CONSULTATION

Urban Dynamics notified potentially interested and affected parties of the proposed application. Interested and affected parties were invited to register as stakeholders. A Background Information Document (BID) provided,

- ❖ background on the nature and location of the activity, and
- ❖ details where further information on the application or activity can be obtained.

Simultaneously, two newspaper notices were placed in separate newspapers for two successive weeks, and a notice of intent was placed at the site. The advertisements which were placed are attached as **Appendix "C.1"**. UDA and DWN held a community meeting on the 3rd of December 2020 at Opuwo. The meeting's minutes and attendance register are attached as **Appendix "C.4"**

Figure 2: Community Meeting



7 DESCRIPTION OF THE SITE

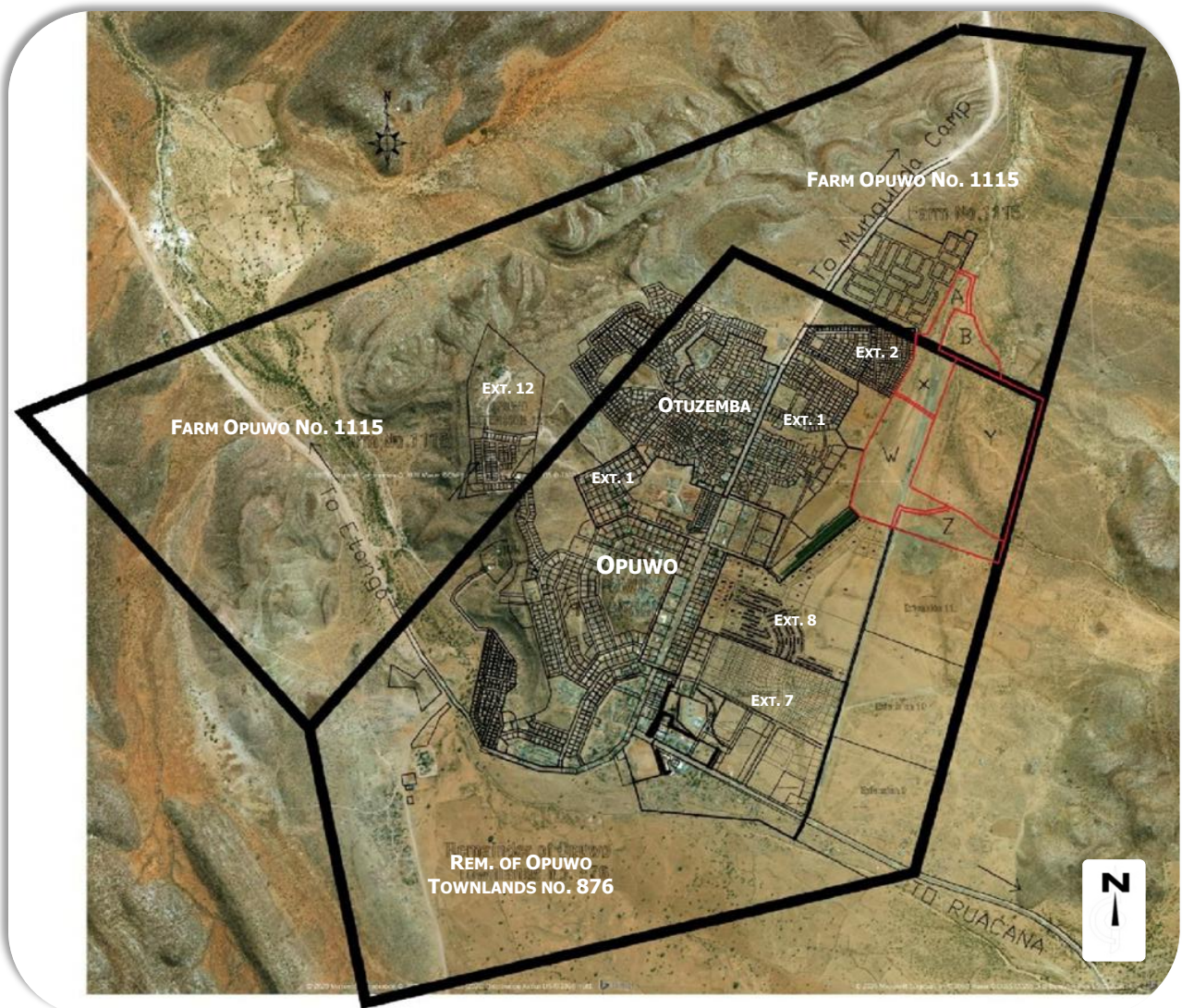
This section provides a planning description of the Opuwo development sites relative to the surrounding urban areas, existing uses and settlement, services and other infrastructure, topography, and any other features of the site.

7.1 LOCATION OF THE SITES

Farm Opuwo No. 1115 will be subdivided into Portion A, B and remainder. Simultaneously, the Townlands of Opuwo No. 876 will be subdivided into four new portions, Portions W, X, Y and Z.

The project sites are located at -17.766036 S, 24.693962 E situated north of Extension 8, Opuwo and south-east of Extension 2, Otuzemba.

Figure 3: Locality of the Portions within the Opuwo Townlands



7.2 SIZES AND SHAPES OF THE PORTIONS

7.2.1 Portions A and B

Portion A of the Farm Opuwo Townlands No. 1115 is approximately 4.01 ha, and **Portion B** of the same Townlands is approximately 6.13 ha. The Portions sizes and land use are shown in **table 1**. **Figure 4** illustrates the shapes of the two Portions.

Table 1: *Portions A & B Sizes and Land Uses*

THE SITE	AREA SIZE/ HA	LAND USE
PROPOSED PORTION A	4.01	UNDETERMINED
PROPOSED PORTION B	6.13	UNDETERMINED
REMAINDER	791.389	UNDETERMINED
TOTAL	801.532	-

Figure 4: *Portions A and B's Form*



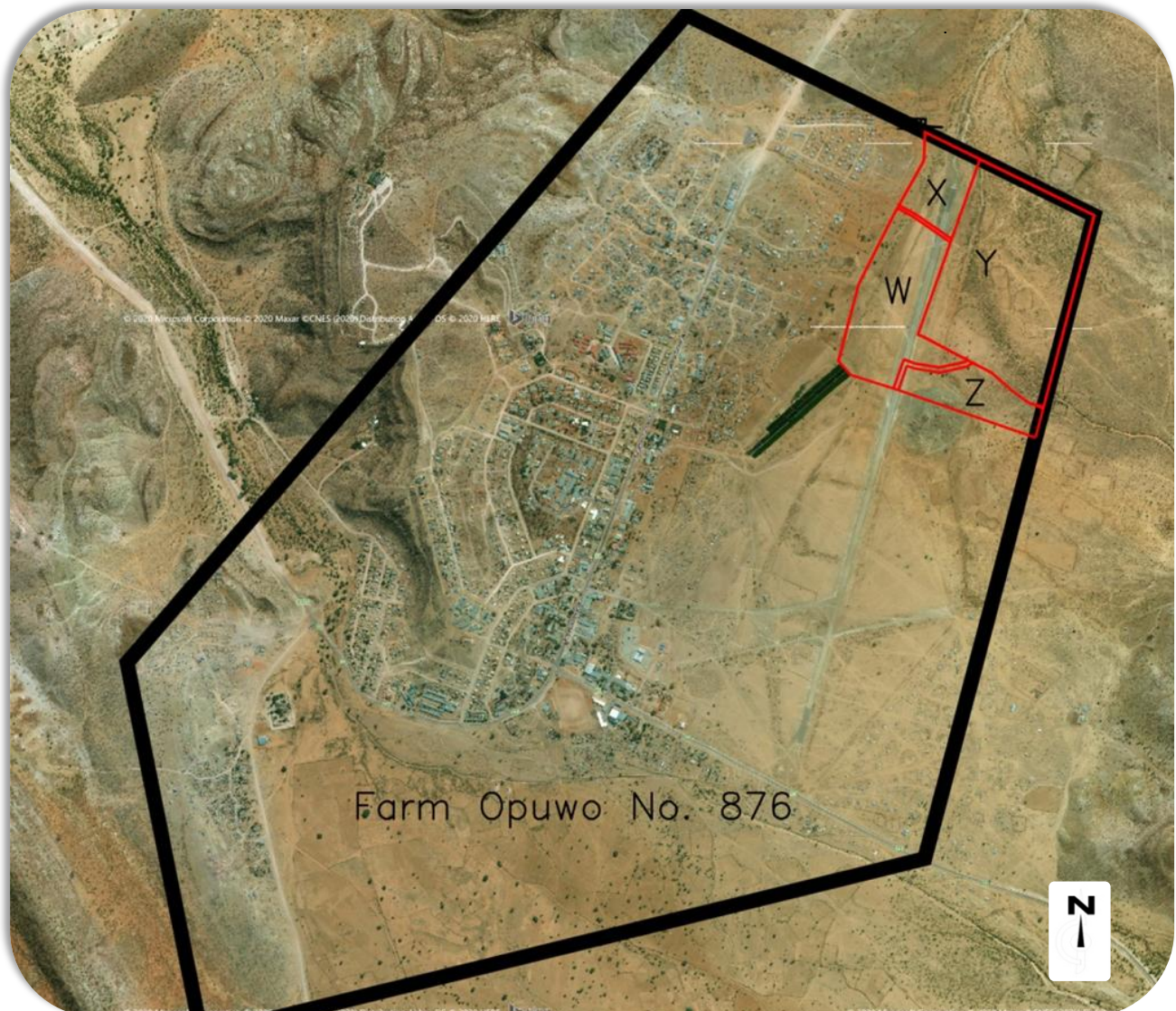
7.2.2 Portions W, X, Y and Z of the farm Opuwo Townlands No. 876

Portion W is approximate 19.58 ha, **Portion X** is approximate 7.45 ha, **Portion Y** is approximate 41.63 ha, and **Portions Z** is approximate 8.53 ha in extend. The Portions sizes and land use are shown on **Table 2**. **Figure 5** illustrates the shapes of the proposed four Portions.

Table 2: Portions W to Z's Sizes and Land Uses

THE SITE	AREA SIZE/ HA	LAND USE
PORTION W	19.585	UNDETERMINED
PORTION X	7.453	UNDETERMINED
PORTION Y	41.638	UNDETERMINED
PORTION Z	8.537	UNDETERMINED
REMAINDER	906.9	UNDETERMINED
TOTAL	984.114	-

Figure 5: Portions W to Z's shapes



7.3 LAND USE ACTIVITIES

The proposed development sites are currently zoned "Undetermined". Portion Y's site has four temporary scattered structures. The portion also borders onto the old Opuwo Airfield, which is in the process to be decommissioned as indicated on **Figure 6**.

Figure 6: Current Land Use

OLD OPUWO AIR STRIP



FIELDS AND TEMPORARY STRUCTURE



Source: Brian J. McMorrow

7.4 ACCESS AND UTILITY SERVICES

7.4.1 Access:

The site is easily accessible by two 20 m distributor roads leading from Otuzemba Ext. 2 to the project area.

7.4.2 Electrical Supply:

Currently, the site has no electricity supply. The proposed development is to be supplied from the Opuwo Town Council's reticulated network, through the nearby extension from the closest and most suitable line.

7.4.3 Water Connection:

The development's source of water supply will be from the Opuwo Town Council's reticulated network.

7.4.4 Sewerage:

The town is served by a sewerage system consisting of a collection network and pump stations that send sewerage to oxidation ponds located on the south-west of the site.

7.4.5 Communication:

Telecommunication services are available by means of cellular. However, Telecom landline infrastructure will be implemented by Telecom.

7.5 CULTURAL RESOURCES

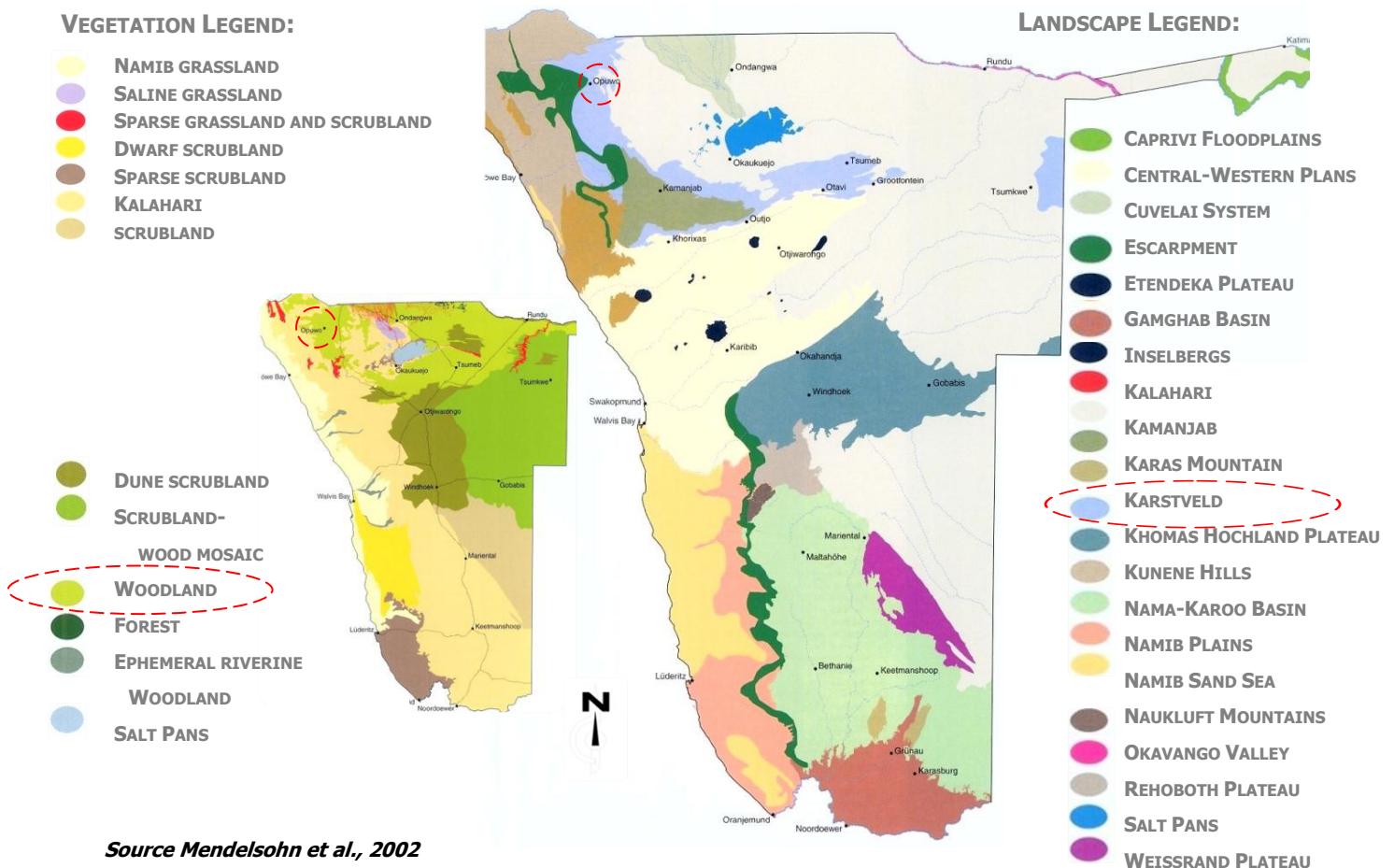
No graves were identified on the site, and no other items of historical value were found or could be identified within the site boundaries.

7.6 ENVIRONMENTAL CHARACTERISTICS AND TOPOGRAPHY

7.6.1 Natural Environment:

Vegetation in Namibia is strongly influenced by the low rainfall patterns, topography and soil conditions of the regions (Mendelsohn et al., 2002). Opuwo is situated in the north-western part of Namibia within the Kunene Region, which has low-lying hills and vast semi-arid karstveld plains (Mendelsohn et al., 2002).

Figure 7: Landscape and Vegetation



According to Mendelsohn et al. (2002), vegetation surrounding Opuwo is classified as the Acacia Colophospermum (Mopani) - and shrub savanna (Karstveld).

Vegetation at the project area was found to be low-density Mopani Woodlands, with barren areas and very little undergrowth.

Figure 8: The Site's Vegetation

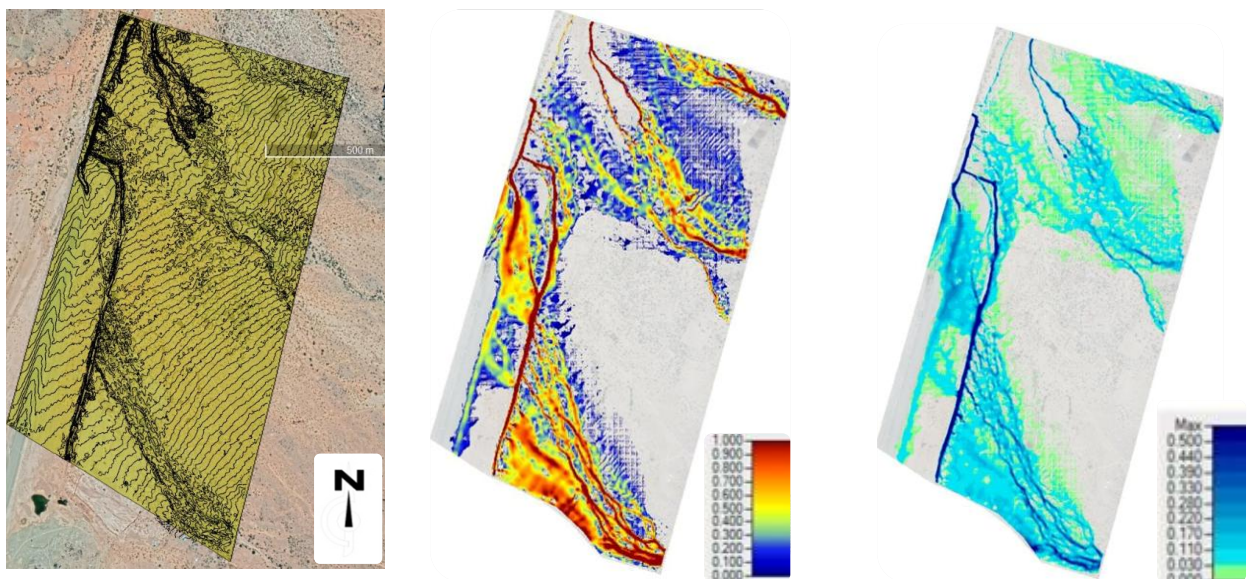


The project site has no residential wildlife and does not form part of the migration routes of wild animals in the Kunene Region

7.6.2 Topography and Flooding

The topographical characteristics of Opuwo consist of a large flat area which is almost completely surrounded by the floodplain. The site has a downward slope of 1:16m from a South-Eastern direction and naturally drains into a northern direction.

Figure 9: Topography and Flooding



The Floodline study of the site, compiled by Knight Pièsold indicated that a 1 in 25-year flood would submerge a large portion of the northern area and parts of the site's southern area. It is, however, noted that area inundated with low flow velocity (i.e. less than 0.1 m/s), at a very low flow depth (>0.03 m, shown in light green on **Figure 9**).

7.6.3 Geology and Soil

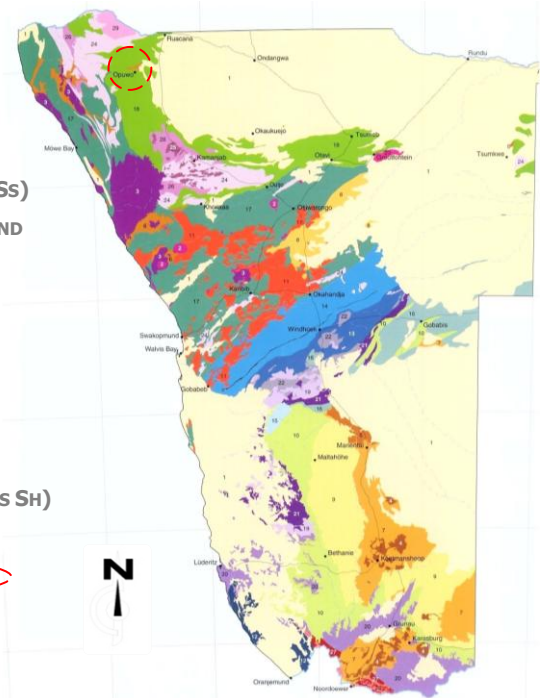
Figure 10 indicates the locality of the Otavi fold belt in Namibia. The surrounding rock formation at Opuwo is primarily limestone which forms part of the Otavi Group (Mendelsohn et al., 2002). The Kunene Region’s landscapes generally consist of valleys, escarpments, mountains, springs and perennial rivers (Kunene Regional Development Profile, 2015).

Figure 10: Rock Types in Namibia

LEGEND:

- | | | | |
|---|-----------------------------|----|--|
| 1 | KALAHARI AND NAMIB SAND (S) | 10 | FISH RIVER SUBGROUP (Ss) |
| 2 | IGNEOUS INTRUSIONS (Ls Ss) | 11 | KUIBIS AND SCHWARZRAND SUBGROUP (Ss C) |
| 3 | ETENDEKA GROUP (Ss) | 12 | DAMARA GRANITE (G) |
| 4 | DYKES AND SILLS (V) | 13 | GARIEP COMPLEX (Cx) |
| 5 | KALKDRAND BASALTS (B) | 14 | HAKOS GROUP (Ss) |
| 6 | HUAB BASIN (Ss SH) | 15 | KHOMAS GROUP (SCH) |
| 7 | MAIN KAROO BASIN (Ss SH) | 16 | NAUKLUFT MOUNTANS (Ls SH) |
| 8 | WATERBERG BASIN (Ss C) | 17 | SWAKOP GROUP (SCH) |
| | | 18 | OTAVI GROUP (Ls) |
| | | ~ | MATCHLESS BELT (A) |

Source Mendelsohn et al., 2002



The project area is in a low lying area, with silty sand, which is shallow and not well-drained. Drainage channels on the site consists of large hard rock and is covered with alluvial pebbles, and is well-drained as indicated on **Figure 11** (Knight Pièsold, 2020).

Figure 11: Site’s Landscape



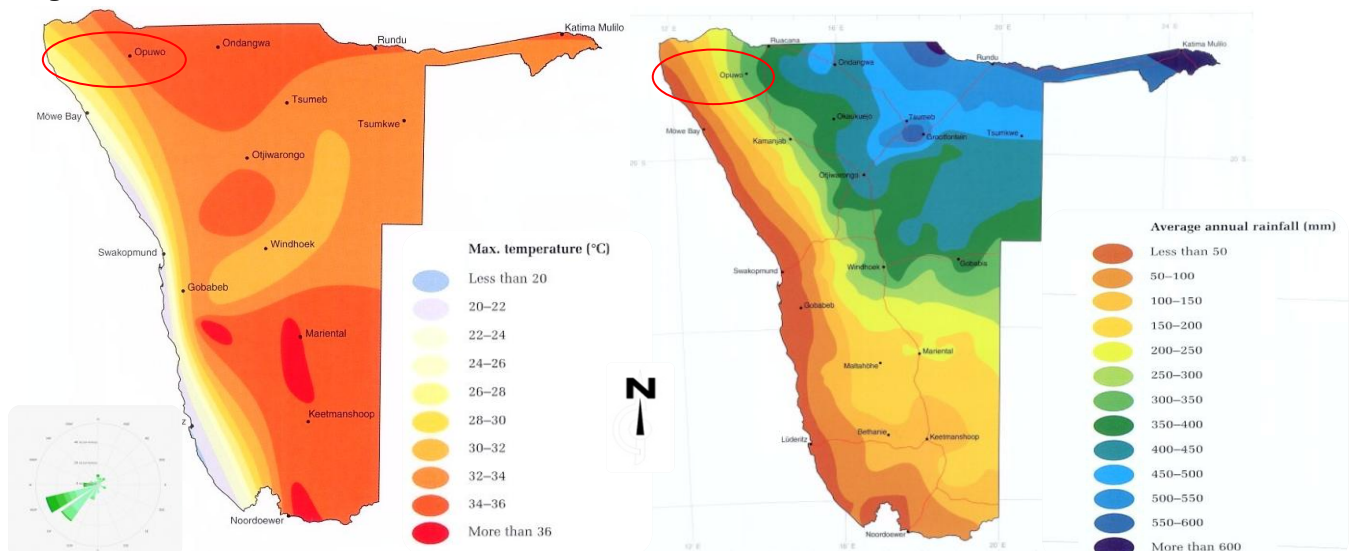
7.6.4 Climate, Wind Directions, and Rainfall:

Namibia is a hot and dry country, and due to low levels of humidity in the air, the country experiences low levels of cloud cover and rain, but also extremely high rates of evaporation. During winter months, Opuwo’s temperatures can range from an average of 5 to 26 degrees centigrade and during December, it can reach to more than 35 degrees centigrade (Mendelsohn et al., 2002).

Winds within the region are predominantly south easterly. The area experiences wind calm about 57% of the time. Winds mostly blow from the east and seldom reach speeds exceeding 35 km per hour (Meteoblue, 2020). The windiest month is October.

Opuwo has about 12.5 hours of sunlight, of which December and January are the two months with longest days.

Figure 12: National Climate



Source Mendelsohn et al., 2002

Most rain-bearing clouds are fed into the country by east north-easterly winds (Mendelsohn et al., 2002 & Meteoblue 2020) As such, the South and Western parts of the country receive less rainfall than the central and northern parts of the country as indicated on Figure 12. The average monthly humidity at midday ranges from 50% in March to 17% in September. Like the rest of the country, the region has an arid climate and a very short wet season, mainly during February to March. The average yearly rainfall across the region increases from west (50 mm) to east 415, which is less than 50 mm to 415 mm per annum and is very sporadic (Mendelsohn et al., 2012).

7.6.5 Status of Protected Area:

The site itself has no protected status.

7.7 SUMMARY OF THE HABITATION ON SITE

As a result of the population density at Opuwo, habitat alteration occurred. The site is ecologically degraded, no longer pristine and is not fully functional at the ecosystem level. It may be best described as a highly impacted originally rural agricultural ecosystem and is not a natural environment any more.

Key environmentally relevant features show that:

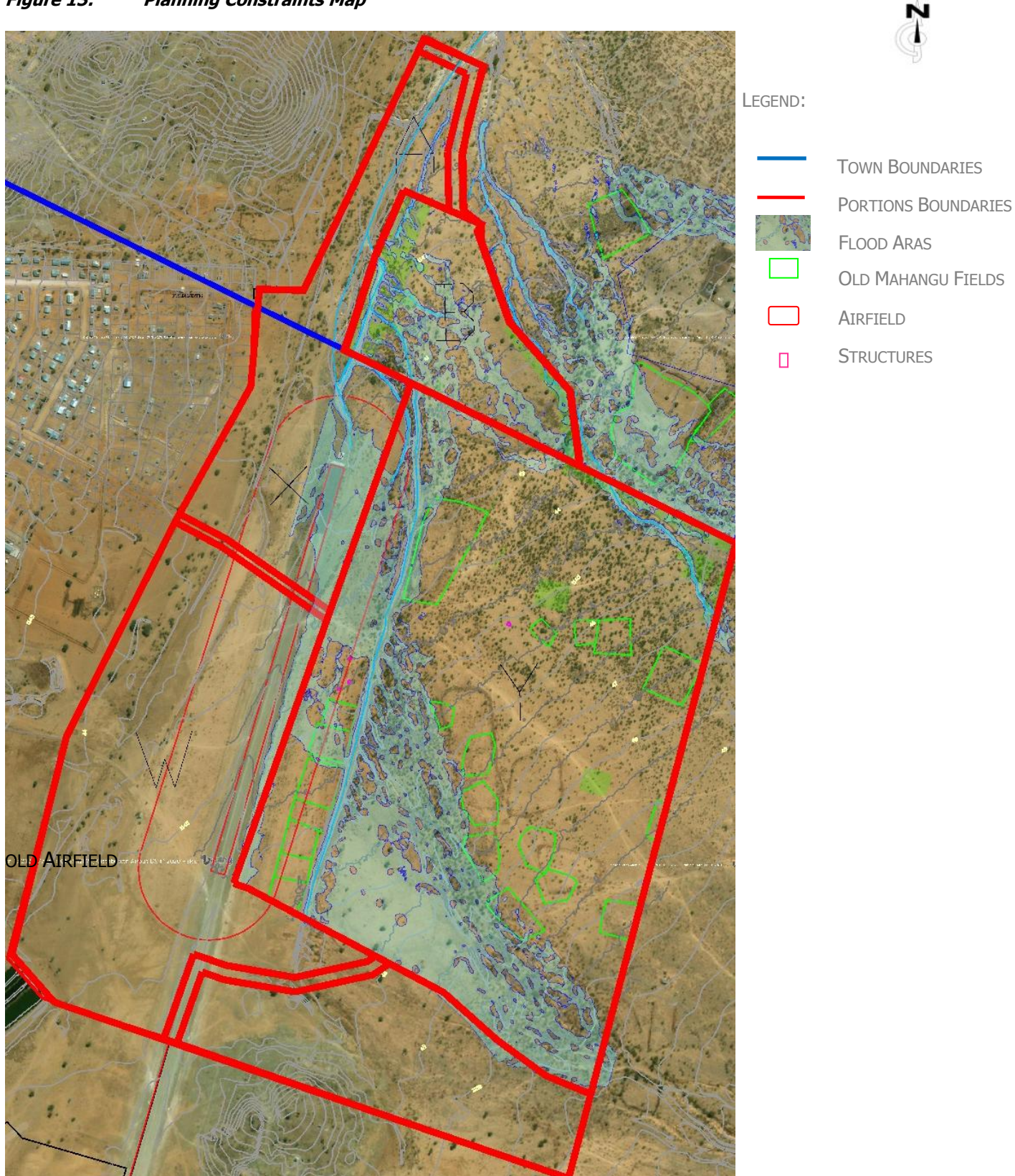
- ❖ The site has no residential wild mammals, and does not form part of the migration routes of wildlife in the Kunene Region;
- ❖ The site has a downward slope of 1:16 m from a South-Eastern direction and naturally drains into a northern direction;
- ❖ The 1 in 25-year floodline Knight Pièshold recommended for the development is based on a maximum flow depth of 0.03 m. The nature of the development and the rare occurrence of a 1 in 25-year flood event that the flood line will be considered acceptable;
- ❖ The land has been cleared for croplands and is located next to an urban area;
- ❖ Portion Y includes four scattered temporary structures, twenty mahangu fields;
- ❖ The natural vegetation on the project site consists of low-density Mopani Woodlands and, barren areas with very little undergrowth;
- ❖ Soil type at Opuwo consist out of silty soil; and
- ❖ Temperatures in the average winter range from 5 to 26 degrees centigrade and during December it can reach to more than 35 degrees centigrade.

The screening process turned up no significant biodiversity-related issues for the current development, and there are no aspects that require further investigation. However, the layouts should take into account the river channels, and the 1 in 25-year floodline. The scattered trees should be considered in the area, and where necessary permits should be obtained for these to be moved. It is recommended that the development proceeds without the need for further assessment, as provided for under articles 33 and 34 of the Environmental Management Act.

7.8 SUMMARY OF THE PLANNING CONSTRAINTS

As indicated on the constraints map on **Figure 13**, three temporary structures, 12 old mahangu fields, smaller ephemeral rivers and their flood areas form planning constraints on the sites.

Figure 13: *Planning Constraints Map*



8 THE PROJECT TOWNSHIPS

After the subdivision of the townlands, the Council and DW Namibia intent to establish two new townships. The first township will be established on Portion B of the Remainder of the Farm Opuwo Townlands No. 1115. The township will be a residential neighbourhood, thereby meeting the rising demand for housing within Opuwo.

The second township will be established on Portion Y of the Remainder of the Opuwo Townlands No. 875. The townships will consist of a mixed-use neighbourhood, thereby meeting the rising demand for housing and business plots within Opuwo and within the Kunene Region.

8.1 LAYOUT DETAIL

Figure 14: Opuwo Layouts

The layouts will alter the current zoning from undetermined to include Residential-, Institutional-, Business plots and Public Open Spaces. The block's shapes and sizes are illustrated in **Figure 14**.

The tables below provide a summary of the detailed land-use allocation on the Portions, while the mitigated detail of the layout is discussed afterwards.

LEGEND:

- RESIDENTIAL
- GENERAL RESIDENTIAL
- BUSINESS
- INSTITUTIONAL
- CIVIC
- PUBLIC OPEN SPACE

Table 3: Proposed Land Use

Portion B			Portion Y		
LAND USE	AREA (M2)	NO. OF ERVEN	LAND USE	AREA (M2)	NO. OF ERVEN
SINGLE RESIDENTIAL	21 151	66	SINGLE RESIDENTIAL	13 2314	389
GENERAL RESIDENTIAL	1 609	1	GENERAL RESIDENTIAL	6 938	4
BUSINESS	-	-	BUSINESS	5 816	3
CIVIC	-	-	CIVIC	1 458	1
INSTITUTIONAL	4860	6	INSTITUTIONAL	5 422	3
POS	16529	3	POS	179 106	11
STREET	16924	-	STREET	84 574	-
Total	61073	76	Total	415628	411

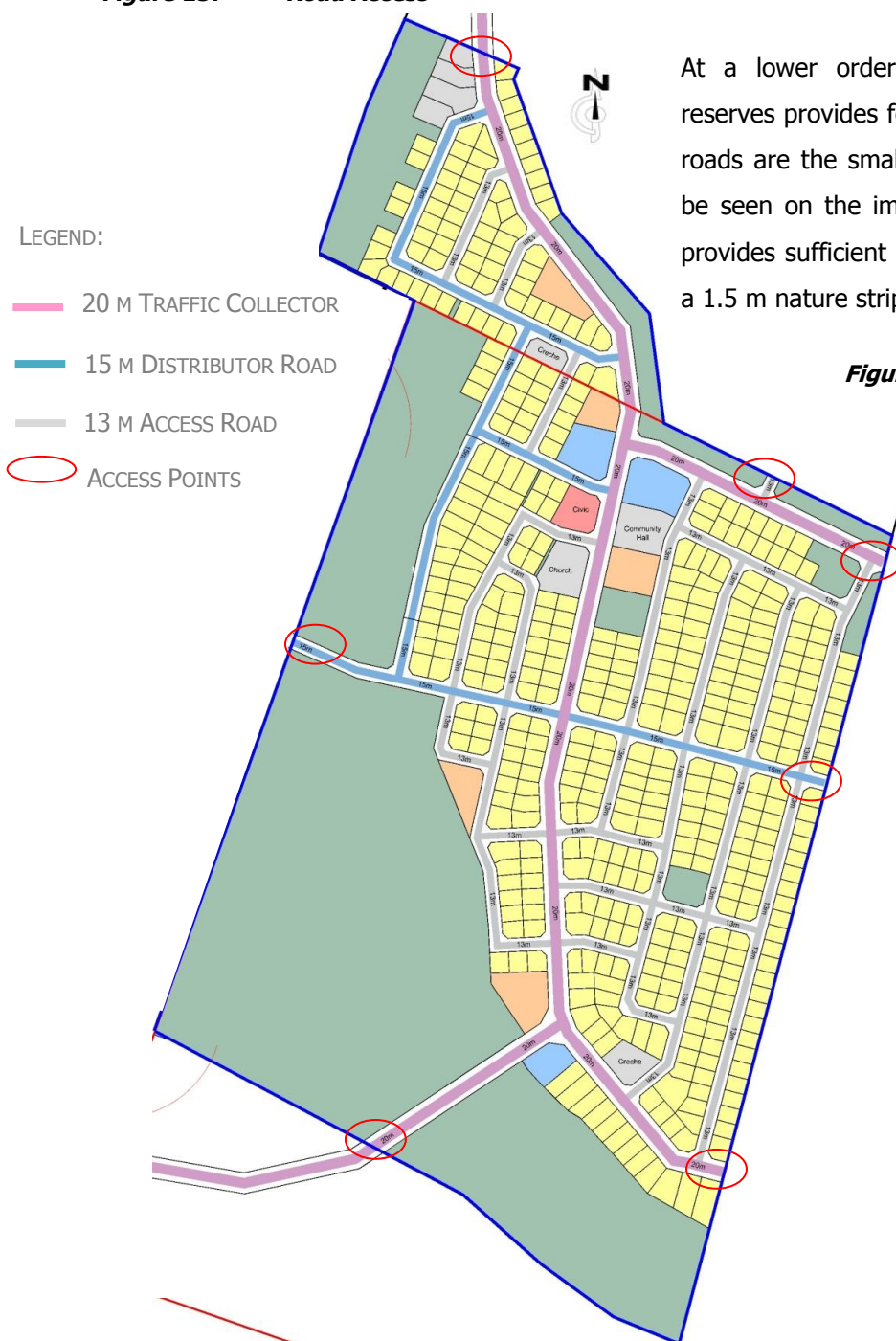


8.2 THE STREET LAYOUT

Access to the layout will be obtained through 7 access points. "Traffic Collectors" provide a function of internal mobility throughout the new suburb and also between the different facilities and land use zones within the urban context. They have a 20 m wide road, reserves and fall under the jurisdiction of the local authority.

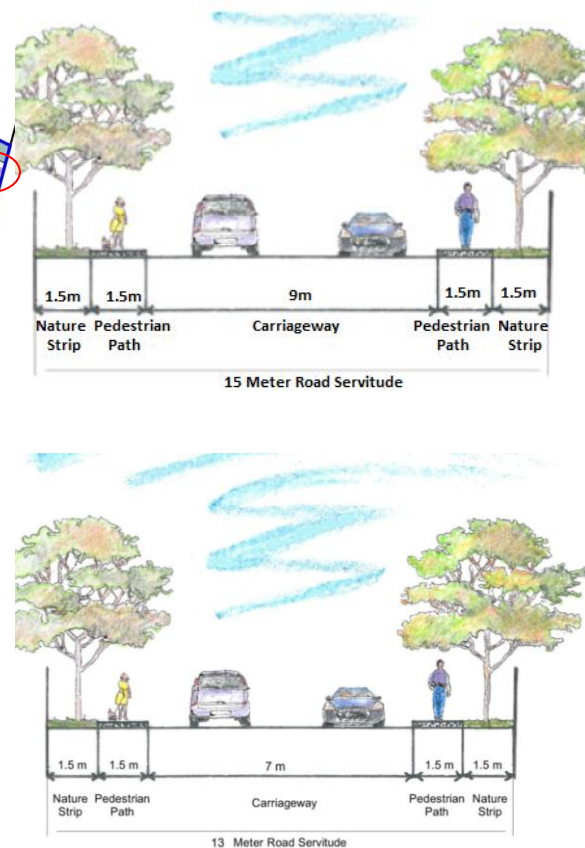
At a moderate order, "distributor Roads" with 15 m wide reserves provide for a medium volume of traffic, linkages between collector roads and ultimately access to the residential erven. The collector roads ease traffic away from the distributor roads reducing congestion on major roads.

Figure 15: Road Access



At a lower order, "Access Roads" with 13 m wide reserves provides for the lower volumes of traffic. These roads are the smallest and carry the least traffic. It can be seen on the image below that a 13 m road reserve provides sufficient space for a 7 m two line carriageway, a 1.5 m nature strip and pedestrian path either side.

Figure 16: Provision of Pedestrians



8.2.1 Provision for Drainage:

Stormwater drainage will be designed, and culverts and bridges will be used to accommodate the flow of the water.

9 POTENTIAL IMPACTS

During the course of preparing the Opuwo layout, the team constantly assessed the potential positive and negative impacts of the project. Attempts have been made to enhance and strengthen positive impacts and mitigate and weaken the effects of negative impacts in all cases. Several alterations to the plan were produced until the planners were satisfied that the layout had been refined to the point where it limits risks, mitigates negative impacts and enhances positive impacts to as great an extent as possible. The following section explores each of these impacts in detail, describing and exploring the various ideas integrated into the layout, and assessing alternatives where they seem viable.

The section also explores positive impacts that are not fully addressed by the layout. Many impacts may be transitory in nature (for example, occurring only during the construction phase of the project) or unavoidable, given the site constraints and the need for maximising long-term benefits overall. These impacts and strategies for dealing with them are discussed here, but given that this document is an application for environmental clearance, the measures dealing with their mitigation/enhancement are dealt with in detail in the EMP.

9.1 SUMMARY OF POTENTIAL IMPACTS

The planning of the layout, together with the upgrading of bulk infrastructure and alignment of roads has the potential to cause environmental and social impacts. The following is a list of potential impacts identified through the scoping process:

9.1.1 Benefits of the Project:

- Provision for serviced erven;
- Stimulation of economic development and providing new employment opportunities during the construction;
- Employment creation and local economic development; and
- Stimulation of the health and wellness of Opuwo and the Kunene Region.

9.1.2 Potential Negative Impacts during the Construction:

- Impact of removal of trees from the site;
- Impact of dust;
- Impact of noise;
- Impact on traffic flow during construction;
- Impact on the health and safety of workers; and
- Impact of waste.

9.1.3 Potential Negative Impacts during Operations:

- Impact on traffic flow during operations and
- Impact of waste during operation.

9.2 POTENTIAL IMPACTS

9.2.1 Project Benefits:

- **Provide for serviced erven.** The communities will now have access to properly planned erven with specified erf boundaries. This will lead to residents having formal and permanent occupation of land and security of tenure. The process of layouts creates a formal development framework, which would prevent uncontrolled settlement growth and address the current uncontrolled developments.
- **Stimulate health and wellness within the Opuwo Townlands.** The layout makes provision for much-needed service connections that are safe and in line with the layout. It will also create properly aligned roads which will ease traffic circulation within the township. Clearly defined roads will allow for the provision of pedestrian infrastructure, creating a safe walking environment.
- **Stimulate the health and wellness of Opuwo within the Kunene Region.** The development will lead to employment creation during the construction and operation phases. It will render services within the formal economy of Opuwo, employ staff, contribute to rates and taxes and spend money within the same economy.

9.2.2 Negative Impacts during Construction:

- **Impact of the removal of trees from the site.** The layout was prepared in such a way to avoid the removal of trees. Trees within the project site will remain intact as far as possible during the alignment of the roads.
- **Impact on traffic flow during construction.** Construction vehicles would need to haul the excavated soil to a disposal site and provide building material and other supplies

(i.e. fuel etc.), supplies to the construction site, most of which could be delivered to the site by truck. Construction vehicles are most likely to pass in close proximity to erven, as well as disrupt traffic flow near Extension 2 (although the exact access routes to the site are yet to be defined).

- **Impact of dust.** The movement of construction vehicles on bare soil will cause excessive dust, which will expose the community and workers on the site to dust pollution, and can impact their health. Preventative measures need to be put in place on the site to prevent excessive dust.
- **Impact of potential construction noise.** Construction machinery creates substantial noise, and this will impact the surrounding community. Ongoing noise can cause stress and health impacts on nearby residents.
- **Impact of construction waste.** Solid waste is the expected major source of waste at the construction site. If no waste management plan is in place to address the disposal of general and hazardous waste at the site, it can lead to water and soil pollution on the site, and/or within the water areas.
- **Impact on the health and safety of workers and nearby residents.** Construction activities always have potential risk for workers and nearby residents. Inadequate site management measures can expose workers and residents living near the site to hazardous chemicals and dust and noise. A lack of notices and signs within the area where deep excavation work is done can put the lives of residents and workers in danger.

9.2.3 Impacts during Operations:

- **Impact of operational waste.** Solid waste is also expected to be a significant source of waste during operations. If no recycling disposal of general waste at the settlement happens, it can lead to water air and soil pollution on the site.

9.3 LAYOUT STRATEGIES

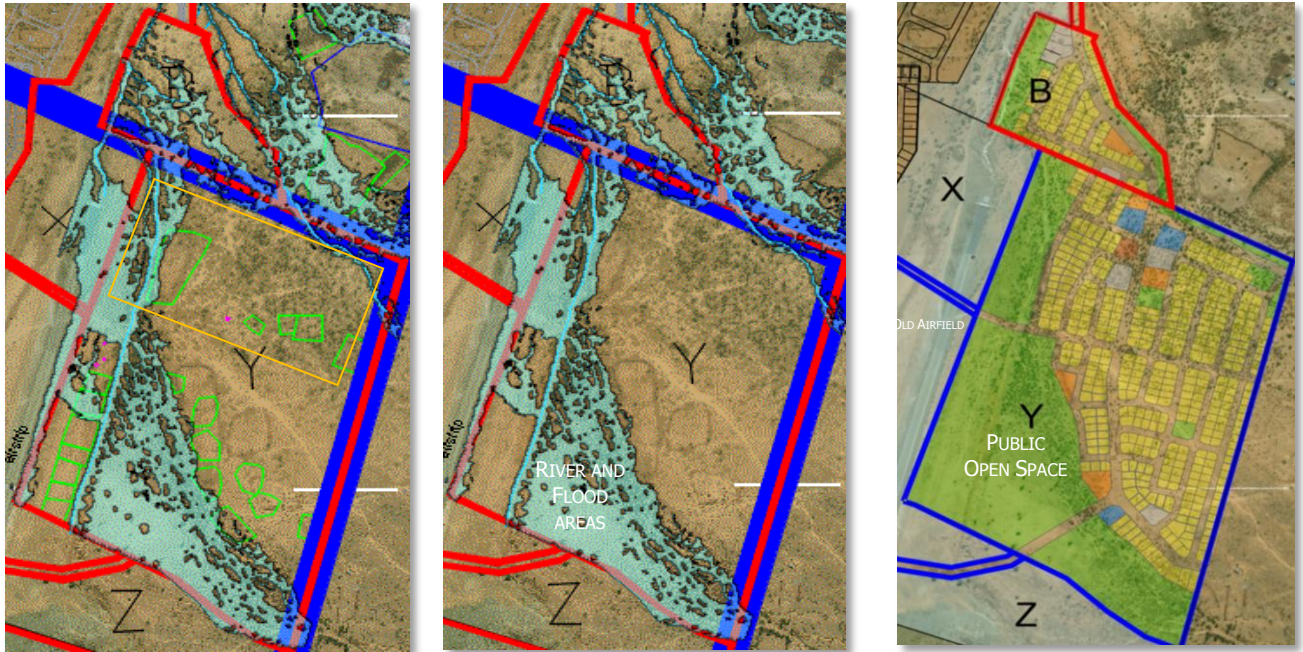
Potential environmental and social impacts were addressed throughout several layout strategies.

The following impacts that can be influenced by alternative layout strategies were considered and dealt with in different ways than was originally proposed:

Relocation and compensation of structures and crop fields: Affected structures and fields will be either compensated for where applicable, or alternatives will be made available for such individuals to

relocate their structures to. The Casualty Map below shows the locality of casualties. Owners will be compensated as per the *Cabinet Compensation Policy*.

Figure 17: Constraints Map



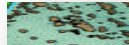





IDENTIFIED CONSTRAINTS: STRUCTURES, RIVER, FLOOD AREA AND CROP FIELDS





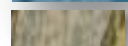

FIELDS AND STRUCTURES WILL BE COMPENSATED AND REMOVED

THE LAYOUT ACCOMMODATES THE RIVERS AND FLOOD AREA WITHIN PUBLIC OPEN SPACE

CONSTRAINTS LEGEND:

-  TOWN BOUNDARIES
-  PORTIONS BOUNDARIES
-  RIVER AND FLOOD AREAS
-  20 MAHANGU FIELDS
-  4 STRUCTURES
-  MOPANI WOODLAND AREA

LAYOUT LEGEND:

-  PORTION Y
-  RESIDENTIAL
-  GENERAL RESIDENTIAL
-  BUSINESS
-  INSTITUTIONAL
-  PUBLIC OPEN SPACE



Accommodating the Mopani woodland areas: The layout makes provision for public open spaces, to accommodate the pockets of Mopani woodland areas in the site. Continuity of public open spaces, was planned to enable the ecosystem to function with limited interference. The open space areas will make approximately 25% of the total project area, equating to about 351 216 m².

9.4 DEALING WITH RESIDUAL IMPACTS

9.4.1 Residual Social Impacts:

Residual social impacts through this project could be elaborated on as follows:

Some structures and Mahangu fields will have to be relocated. However, the owners of these structures are aware that they are within the townlands and will need to make way for future development. In all the cases where structures will be removed, the owners will be compensated as per the provisions of the Cabinet Compensation Policy Guidelines for Communal land by the Opuwo Town Council.

9.4.2 Residual Environmental Impacts

Residual environmental impacts through this project could be elaborated on as follows:

- The development project will create dust and noise during the construction phase, but this will be limited, and a method to limit it is contained in the EMP.
- The project development will have an impact on traffic during the construction phase. To minimise the increase in transportation, during the construction phase, mitigation measures, to manage the vehicles on the construction site, when services are installed, is included in the provisions of the EMP.
- As a result of their work environment, there will be a potential impact on the health and safety of the workers, during the construction phase. This will be limited, and methods to limit it are contained in the EMP.
- Not all trees can be protected within the layout thus a Tree Management Plan (TMP) should be compiled before construction commences. Mitigation methods are contained in the EMP regarding the TMP and required permits for the removal of protected trees

10 SUMMARY AND APPLICATION

10.1 PROJECT IMPACTS, AVOIDANCE MEASURES AND RESIDUAL IMPACTS

POTENTIAL IMPACT:	MEASURES:			RESIDUAL IMPACTS:
	AVOIDANCE:	MITIGATION:	ENHANCEMENT:	
<i>Stimulate local economic development and create employment opportunities:</i>			<p>During the development phase, the construction company will render service within the formal economy, employ staff, pay rates and taxes and spend money all within the same economy.</p> <p>Emphasis must be placed on employing of local people.</p>	
<i>Providing serviced residential erven:</i>			<p>The project will lead to a formal and permanent occupation of land, the security of tenure, access to capital and partaking in the economy, and ultimately to wealth creation in the operational phase.</p>	

POTENTIAL IMPACT:	MEASURES:			RESIDUAL IMPACTS:
	AVOIDANCE:	MITIGATION:	ENHANCEMENT:	
STIMULATE THE HEALTH AND WELLNESS OF THE COMMUNITY:			<p>THE DEVELOPMENT:</p> <p>Provide that all services will be on the higher road reserve.</p> <p>Provide for a closed system sewer system, which will prevent pollution during flooding.</p> <p>Provide for pedestrian infrastructure.</p> <p>The development is also situated walking distance from the town centre, schools and health facilities within Opuwo.</p> <p>Provide formal and permanent occupation of land and the security of tenure.</p>	
POTENTIAL NEGATIVE IMPACTS				
POTENTIAL REMOVAL OF STRUCTURES	Avoid the removal of structures and homesteads on the site.	<ul style="list-style-type: none"> Owners will be compensated as per the Cabinet Compensation Policy. 		
POTENTIAL REMOVAL OF EXISTING TREES:	Avoid the removal of existing trees.	<p>Mopani and single trees will be accommodated within:</p> <ul style="list-style-type: none"> Individual erven. The road alignment, reserve. 		<i>Not all the trees can be protected</i>

POTENTIAL IMPACT:	MEASURES:			RESIDUAL IMPACTS:
	AVOIDANCE:	MITIGATION:	ENHANCEMENT:	
POTENTIAL DUST AND NOISE ON THE CONSTRUCTION SITE:		<p>Dust:</p> <ul style="list-style-type: none"> No removal of vegetation or soil on the site except where necessary during the construction phase. <p>Noise:</p> <ul style="list-style-type: none"> Construction work will be restricted between 07h00 and 18h00. 		<i>Not all the dust and noise can be prevented.</i>
POTENTIAL IN AN INCREASE IN TRAFFIC DURING THE CONSTRUCTION PHASE:	Avoid an uncontrolled increase in traffic during the construction phase.	Traffic during the construction phase will be restricted between 07h00 and 18h00.		<i>Increase in traffic can be managed. However, the increase in traffic will still have a potential impact on residents.</i>
HEALTH AND SAFETY OF WORKERS:	Avoid health and safety impacts on workers during the construction phase.	Proper construction practices and safety procedures need to be applied.		<i>Not all the health and safety aspects of the workers can be prevented.</i>

11 APPLICATION FOR ENVIRONMENTAL CLEARANCE

Given the findings of this baseline investigation, no significant biodiversity-related issues were identified, and there are no aspects that require further investigation. However, the layout should consider the river streams, 1 in 25-year floodlines, as well as the various protected species of tree in the area, and where necessary apply for permits for these to be moved.

It is recommended that the development proceeds without the need for further assessment, as provided for under articles 33 and 34 of the Environmental Management Act. The application form for an Environmental Clearance Certificate as per Section 32 is attached as **Annexure "1"** to this Scoping Report.

ANNEXURE 1

FORM 1 APPLICATION FOR AN ENVIRONMENTAL CLEARANCE CERTIFICATE

FORMS

Form 1

REPUBLIC OF NAMIBIA

ENVIRONMENTAL MANAGEMENT ACT, 2007

(Section 32)

APPLICATION FOR ENVIRONMENTAL CLEARANCE CERTIFICATE



PART A: DETAILS OF APPLICANT


1. Name:	Urban Dynamics Africa (Pty) Ltd
2. Business Registration / Identity No.	93/423
3. Correspondence Address:	P. O. Box 20837, Windhoek
4. Name of Contact Person:	Mrs. H. Bindemann-Nel
5. Position of Contact Person:	Planner in Training/Eap
6. Telephone No.:	(061) 240 300
7. Fax No.:	(061) 240 309
8. E-mail Address:	heidri@udanam.com

PART B: SCOPE OF THE ENVIRONMENTAL CLEARANCE CERTIFICATE

The environmental clearance certificate is for:	
TOWNSHIP ESTABLISHMENTS AT OPUWO WITHIN THE KUNENE REGION	
Title of Activity:	The alignment and construction of public roads and the construction of infrastructure within flood areas through township establishment.
Nature of Activity:	Infrastructure development/ townships establishment
Location of Activity:	Opuwo within the Kunene Region
Scale and Scope of Activity:	Scoping Report

PART C: DECLARATION BY APPLICANT

I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand the environmental clearance certificate may be suspended, amended or cancelled if any, information given above is false, misleading, wrong or incomplete.

	<u>Heidri Bindemann-Nel</u>	<u>Planner in training/Eap</u>
Signature of Applicant	Full Name in Block Letters	Position

on behalf of the **Opuwo Town Council** Date: 18/11/2020

ANNEXURE 2

CV OF ENVIRONMENTAL PRACTITIONER

- 1. Surname:** Heidri Estellè Bindemann-Nel
- 2. Profession:** Environmentalist
- 3. Date of Birth:** 29 March 1977
- 4. Nationality:** South African, PR number N6723/94
- 5. Membership in Professional Bodies:**

- Member of the Namibia Council of Town and Regional Planners
- Member of the Namibia Institute of Town and Regional Planners

KEY QUALIFICATIONS: (RELEVANT TO THE PROJECT)

SELECTED TOWN PLANNING EXPERIENCE RELATED TO ENVIRONMENTAL CLEARANCE	
ENVIRONMENTAL CLEARANCE:	
DETAILED TASKS ASSIGNED:	RELEVANT PROJECTS:
SCOPING REPORTS FOR ENVIRONMENTAL CLEARANCE FROM THE MINISTRY OF ENVIRONMENTAL AND TOURISM:	<p>Environmental Clearance for Township Establishment at, Tungo within the Rundu Town and Townlands No. 1329 (approved 2014),</p> <p>Environmental Clearance for Township Establishment at, Ozondje within the Omaruru Town and Townlands No. 85 (approved 2014),</p> <p>Environmental Clearance for Township Establishment at, Onesi Town and Townlands No. 992 (approved 2015),</p> <p>Environmental Clearance for Township Establishment at, Onayena Town and Townlands No. 985 (approved 2015),</p> <p>Environmental Clearance for Township Establishment at Portion 154, within the Consolidated Farm Okahandja Town and Townlands No. 277 (approved 2015),</p> <p>Environmental Clearance for Townships Establishments for the development of 18 New Township Extensions in Oshitayi, within the Ondangwa Town and Townlands No.882 (approved 2016),</p> <p>Environmental Clearance for Township Establishment on Portion 1 of Farm 1115, within the Opuwo Townlands No. 876. (approved 2017),</p> <p>Environmental Clearance for creating of a street on the Remainder of Erf 3093, Tsumeb, Extension 4 (approved 2017),</p> <p>Environmental Clearance for the Amendment of Conditions of Title from Residential to Industrial and the Existing Charcoal Storage and Packing Facility on Portion 149 (Randte), within the Remainder of Farm Outjo Townlands No. 193 (approved 2019),</p> <p>Environmental Clearance for the Rezoning of Erf 680, Swakopmund From "General Residential 2" to "General Business" (approved 2019),</p> <p>Environmental Clearance for Odila Lodge within the Ohangwena Region" (approved 2019),</p> <p>Environmental Clearance for the Establishment of Townships at Okanjengedi South within the Remainder of Farm Okshakati Townland No. 880 (approved 2019),</p>

<p>SCOPING REPORTS FOR ENVIRONMENTAL CLEARANCE FROM THE MINISTRY OF ENVIRONMENTAL AND TOURISM:</p>	<p>Environmental Clearance for the Establishment of Land Hold Titles at Onawa, Oshakait – As defined by the Flexible Land Tenure Act, 2012 (Act 4 of 2012 (approved 2019),</p> <p>Environmental Clearance for the creation of a street and construction and other activities within a watercourse floodline, on the Remainder of Erf 3526, Extension 7, Katima Mulilo (approved 2019),</p> <p>Environmental Clearance for the Establishment of Land Hold Titles at Onawa, Oshakait – As defined by the Flexible Land Tenure Act, 2012 (Act 4 of 2012 (approved 2019),</p> <p>Environmental Clearance for the Establishment of erven within existing Extension 1 and 2 Okalongo - Closure of public open spaces and portions of public open spaces, and Closure of public street and portions of public streets (approved 2019),</p> <p>Renewal of Environmental Clearance for public roads created through the subdivision of Erf 1055, Oshakati Extension 3 Oshana Region (approved 2019),</p> <p>Renewal of Environmental Clearance for public roads created through the subdivision of Erf 3122, Oshakati, Extension 3, Oshana Region, and</p> <p>Environmental Clearance for the construction and operation of a water-based paint manufacturing plant on Erf 2, Nubu Industrial Park, Windhoek (approved 2020).</p>
--	--

FIELDWORK OR SURVEYS:

<p>COLLECTED AND ANALYSED DATA:</p>	<p>Townships Establishments for the development of 18 New Township Extensions in Oshitayi, within the Ondangwa Town and Townlands No.882 (2014),</p> <p>Township Establishment at Portion 154, within the Consolidated Farm Okahandja Town and Townlands No. 277. (2015).</p>
<p>COLLECTED DATA:</p>	<p>Socio-Economic impact study on the DR 3670, DR 3671 and DR 3672. (2017),</p> <p>Socio-Economic Study for Okalongo (2020), and</p> <p>Kavango West Feasibility Study (2020)</p>

EDUCATION:

INSTITUTION:	DATES ATTENDED:	DEGREES OBTAINED:
Stellenbosch University	2006 to 2008	B.A in Environmental Studies
Stellenbosch University	2009 to 2010	Honours in Geography and Environment
University of Pretoria	2012 to 2014	Masters Degree in Town and Regional Planning

EMPLOYMENT RECORD:

JULY 2014 – CURRENT:	Urban Dynamics (Pty) Ltd - Windhoek-Namibia
	Position held: Environmental Practitioner and Town and Regional Planner in training.
	Responsibilities include Compiling Scoping Reports for Environmental Clearance, consolidations, subdivisions and drafted locality and site plans.
FEBRUARY 2013 – JULY 2014:	Bindemann Associates, Land Surveyors- Walvis Bay-Namibia
	Position held:: Office assistant
	Responsibilities include: Compiling applications for consolidations, subdivisions and drafted locality and site plans.
MAY TO DECEMBER 2012:	Silberbauer Welman Design – Grabouw –South Africa
	Position held: Assisting draftsperson
	Responsibilities include: Drafting house and site plans, submitting building plans and environmental clearance applications to the local governments regarding the Koberg Biosphere. Projects were located in Grabouw and Hermanus, South Africa.

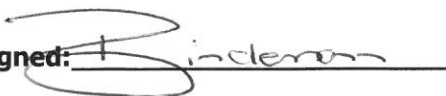
LANGUAGE:

	Speaking	Reading	Writing
English	Good	Good	Good
Afrikaans	Excellent	Good	Good

CERTIFICATION:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and experience.

Date: 28/01/2021

Signed: 

Heidri Estellè Bindemann-Nel

ANNEXURE 3

CONTACT DETAIL OF THE PROPONENT

OPUWO TOWN COUNCIL

P O Box 294

OPUWO

NAMIBIA



ANNEXURE 4

CONTACT DETAIL OF THE CONSULTANT

DETAIL OF THE EAP

- | | |
|--------------------------------|---|
| 1. Name: | URBAN DYNAMICS / Heidri Bindemann-Nel |
| 2. Identity No. | 770329 0222 084 |
| 3. Correspondence Address: | Private Bag 20837, Windhoek |
| 4. Position of Contact Person: | EAP/Planner in Training |
| 5. Telephone No.: | 081 651 7336 / 061 240 300 |
| 6. Fax No.: | 061 240 309 |
| 7. E-mail Address: | heidri@udanam.com |

ANNEXURE 5

PASSPORT

ANNEXURE 6

ENVIRONMENTAL MANAGEMENT PLAN



**URBAN
DYNAMICS**
town and regional planners

ENVIRONMENTAL MANAGEMENT PLAN:

**FOR THE ALIGNMENT AND CONSTRUCTION OF PUBLIC ROADS
AND THE CONSTRUCTION OF INFRASTRUCTURE AS A RESULT OF
TOWNSHIP ESTABLISHMENT AT OPUWO**

DEVELOPMENT ROLE PLAYERS:

OPUWO TOWN COUNCIL

P O Box 294

OPUWO

NAMIBIA



DEVELOPMENT WORKSHOP NAMIBIA

P O Box 40723

AUSSPANNPLATZ

WINDHOEK

NAMIBIA



SCOPING REPORT FOR THE ESTABLISHMENTS OF TOWNSHIPS AT OPUWO, PREPARED BY

URBAN DYNAMICS AFRICA

P O Box 20837

WINDHOEK

NAMIBIA



GENERAL LOCATION DESCRIPTION OF THE DEVELOPMENT AREA:

DESCRIPTOR:	LOCATION SPECIFICS:
NATURE OF ACTIVITIES:	The construction of infrastructure through Township Establishments.
REGION:	Kunene Region
LOCAL AUTHORITY:	Opuwo Town Council
FALL WITHIN:	
PORTION B	of the Remainder of the Farm Opuwo Townlands No. 1115
PORTION Y	of the Remainder of Farm Opuwo Townlands No. 867
NEAREST TOWNS / CITY:	Opuwo
SIZE OF PORTION B	4.01 sqm
SIZE OF PORTION Y	41.638 Ha
LAND USE:	Undetermined
STRUCTURES:	Yes
HISTORICAL RESOURCE LISTINGS:	No
CEMETERY:	No
FLOODLINES:	Yes
ENVIRONMENTAL SIGNIFICANT AREA:	<ul style="list-style-type: none"> ❖ Mopani Woodlands; and ❖ Smaller Ephemeral Rivers
LATITUDE:	-18.048023
LONGITUDE:	13.860819
RELEVANT LISTED ACTIVITIES:	<p>The Environmental Management Act (Act 7 of 2007),</p> <p>Section 8. Water Resource Developments;</p> <p style="padding-left: 40px;">8.8. Construction and other activities in watercourses and flood lines;</p> <p style="padding-left: 40px;">8.9. Construction and other activities within a catchment area;</p> <p>Section 10. Infrastructure</p> <p style="padding-left: 40px;">10.1. The construction of-</p> <p style="padding-left: 80px;">10.1. (b) public roads;</p> <p style="padding-left: 40px;">10.2. Route determination of roads and design of associated physical infrastructure where-</p> <p style="padding-left: 80px;">10.2 (a) public roads.</p>

ABBREVIATION:	DESCRIPTION:
am	ANTE MERIDIEM / BEFORE MIDDAY
Av	AVENUE
BID	BACKGROUND INFORMATION DOCUMENT
EPP	EMERGENCY PREVENTION PLANS
ER	EMPLOYERS REPRESENTATIVE
EA	ENVIRONMENTAL ASSESSMENT
EC	ENVIRONMENTAL COMMISSIONER
ECO	ENVIRONMENTAL CONTROL OFFICER
EMP	ENVIRONMENTAL MANAGEMENT PLAN
etc.	ET CETERA / OTHER SIMILAR THINGS
e.g.	EXEMPLI GRATIA
FC/AC	FIBRE CEMENT/ASBESTOS CEMENT
HIV	HUMAN IMMUNODEFICIENCY VIRUS
i.e.	ID EST. / IN OTHER WORDS
I&APs	INTERESTED AND AFFECTED PARTIES
NHC	NAMIBIAN HEALTH CARE
NAMPAB	NAMIBIAN PLANNING ADVISORY BOARD
pm	POST MERIDIEM / AFTER MIDDAY
SME	SMALL-AND-MEDIUM-SIZED ENTERPRISE
TMP	TRAFFIC MANAGEMENT PLAN
TRRP	TREE REMOVAL AND REPLACEMENT PLAN
TB	TUBERCULOSIS
WMP	WASTE MANAGEMENT PLAN

UNIT SYMBOL:	UNIT DESCRIPTION:
0°	DEGREES CELSIUS
E	EAST
ha	HECTARES
Km	KILOMETRE
m	METER
mm	MILLIMETRE
S	SOUTH
m ²	SQUARE METERS
%	PERCENTAGE

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1 INTRODUCTION

Development Workshop of Namibia (DWN) is a non-profit trust registered in Namibia. It focuses on sustainable urban development and poverty reduction and is part of a worldwide network of Development Workshop organisations. It was founded in the 1970s by three architect students in the UK and has been funded by non-governmental organisations, private citizens, and national and international development organisations.

In Namibia, DWN's activities focus on urban-related research, the provision of low-cost urban land for housing, and the identification and promotion of appropriate low-cost sanitation solutions for low-income residential areas. DWN's programme is officially supported by the Ministry of Urban and Rural Development and implemented through partnerships with local authorities across the country.

Figure 1. The Locality of Opuwo within the Kunene Region



The DWN have had deliberations with the Opuwo Town Council for portions of Opuwo Townlands to assist the Council with providing low-cost housing via a high-density residential township that caters for the low-income residents of Opuwo. The project sites are located north of Extension 8, Opuwo and south-east of Extension 2, Otuzemba.

As a result, the DWN approached Urban Dynamics to

- obtain approval for the subdivision of the Remainder of Farm Opuwo Townlands No. 1115 and the Remainder of Opuwo Townlands No. 876,

- submit a need and desirability application to the Ministry of Urban and Rural Development for the establishment of townships on two of the subdivided land and
- Obtain approval for the layouts of the two new Townships.

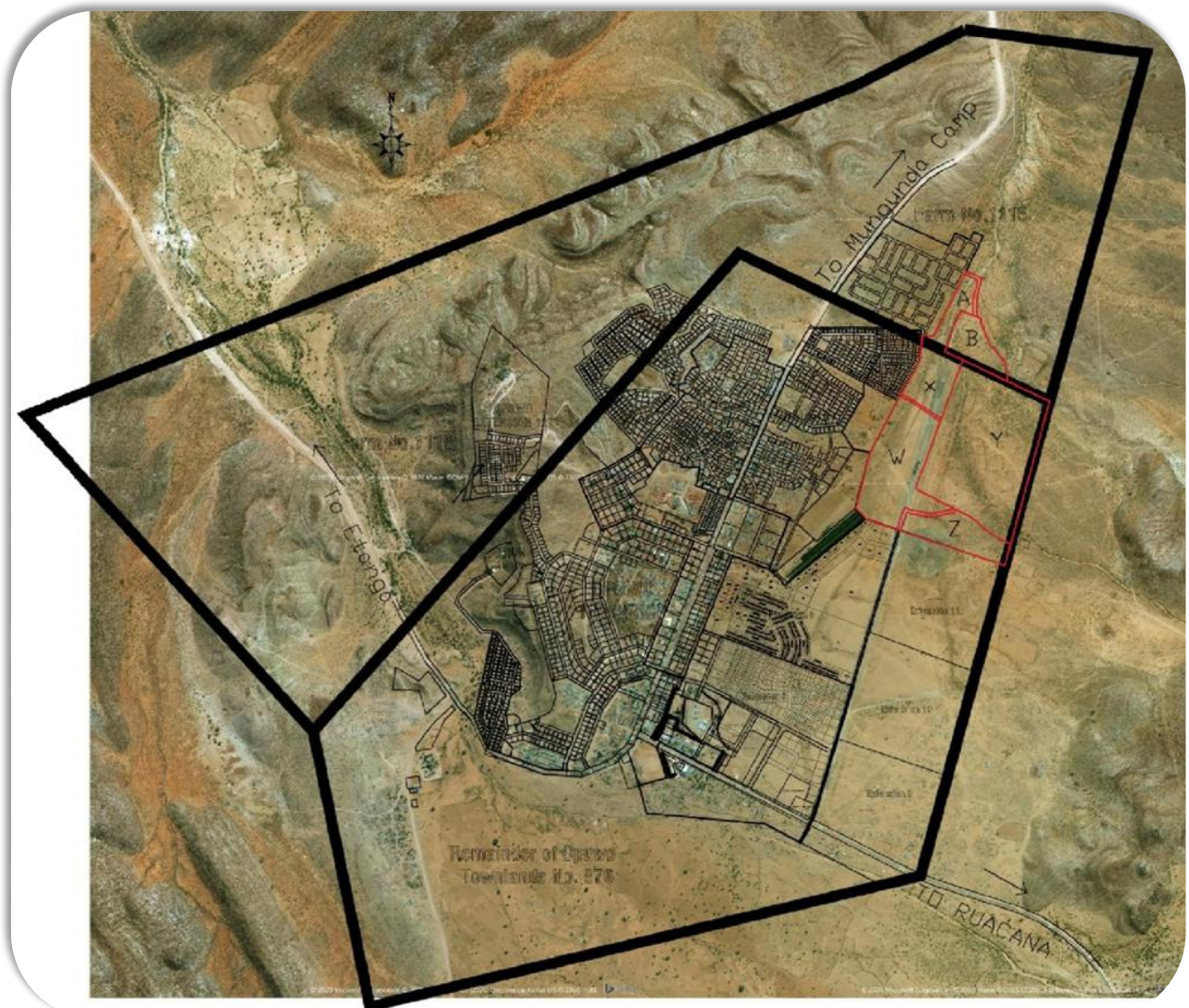
For the purpose of obtaining approval from the Ministry of Urban and Rural Development through the Urban and Regional Council, an Environmental Clearance Certificate must first be obtained from the Ministry of Environment Forestry and Tourism.

1.1 LOCATION OF THE PROPOSED DEVELOPMENT

Farm Opuwo No. 1115 will be subdivided into Portion A, B and remainder. Simultaneously, the Townlands of Opuwo No. 876 will be subdivided into four new portions, Portions W, X, Y and Z. Two new townships will be established on Portion B and Portion Y.

The project sites are located at -17.766036 S, 24.693962 E situated north of Extension 8, Opuwo and south-east of Extension 2, Otuzemba.

Figure 2. The Locality of the Site



The layouts will alter the current zoning from undetermined to include Residential-, Institutional-, Business plots and Public Open Spaces. The block's shapes and sizes are illustrated in **Figure 3**.

The tables below provide a summary of the detailed land-use allocation on the Portions, while the mitigated detail of the layout is discussed afterwards.

The table below provides a summary of the detailed land-use allocation for the Portion, while the detail of the street layout is discussed afterwards.

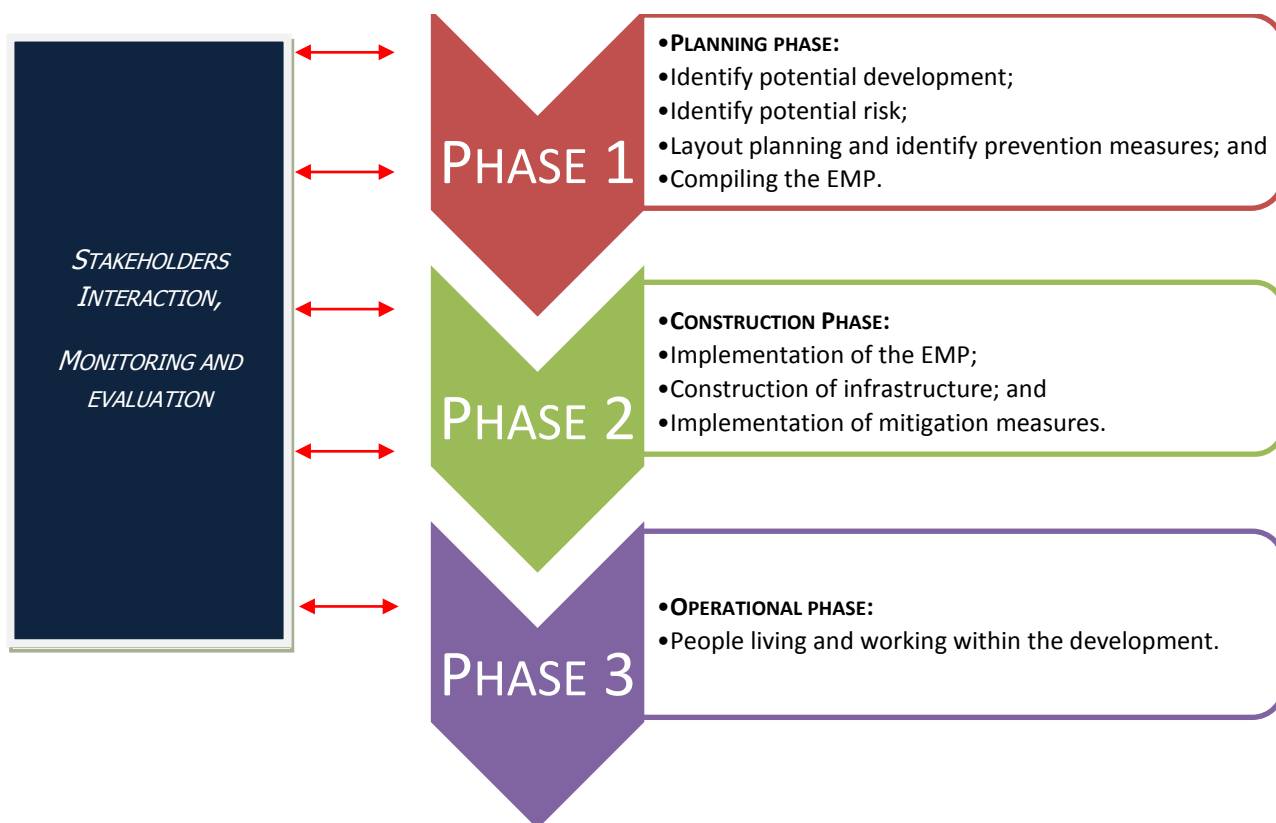
Figure 3. Proposed Opuwo Layouts & Land Use Tables



An EMP is an essential product of an Environmental Assessment (EA) process. An EMP synthesises all recommended mitigation and monitoring measures laid out according to the various stages of a project life cycle, with clearly defined follow-up actions and responsibility assigned to specific actors. This EMP has been drafted in accordance with the Namibian Environmental Management Act (No. 7 of 2007) and its Environmental Impact Assessment Regulations (2012). This plan describes the mitigation and monitoring measures to be implemented during the following phases of the development:

- ❖ Construction and
- ❖ Operation

Table 1: Project Phases



2 RESPONSIBILITIES

Implementation of the EMP is ultimately the responsibility of the Opwuo Town Council, who will be the Developer and the administrator of the development after construction. Due to the magnitude of the project, it may be necessary to outsource certain functions pertaining to managing all aspects of the actual development process. When implementing the Environmental Management Plan (EMP), the following roles and responsibilities apply.

Each role player's responsibilities are described.

EMPLOYERS REPRESENTATIVE (ER)

The Employers Representative (ER) is appointed by the Developer to manage all contracts for work/services that are outsourced during the construction phase. Any competent employee or third party organisation which possesses the appropriate experience may fill this position. Any official communication regarding work agreements is delivered through this person/organisation.

The ER shall assist the Environmental Control Officer (ECO) where necessary and will have the following responsibilities regarding the implementation of this Environmental Management Plan:

- ❖ Ensuring that the necessary legal authorisations and permits have been obtained by the Contractor,
- ❖ Assisting the Contractor in finding environmentally responsible solutions to problems with input from the ECO where appropriate,
- ❖ Warning and ordering the removal of individuals and/or equipment not complying with the EMP,
- ❖ Issuing fines for the transgression of site rules and penalties for contravention of the EMP, and
- ❖ Providing input into the ECO's ongoing internal review of the EMP. This review report should be submitted on a monthly basis to the Developer.

ENVIRONMENTAL CONTROL OFFICER (ECO)

The ECO should be a competent person appointed by the ER. If the ECO has no training in occupational safety and health on a construction site, they should be sent for such training. The ECO is the ER's onsite representative primarily responsible for the monitoring and review of onsite environmental management and implementation of the EMP by the Contractor(s). If no ECO is appointed the duties of the ECO fall upon the ER. The the Opwuo Town Council should, with the commencement of the project monitor the implementation of the EMP onsite on an ad hoc basis.

The ECO's duties include the following:

- ❖ Assisting the ER in ensuring that the necessary legal authorisations have been obtained;
- ❖ Maintaining open and direct lines of communication between the ER, Developer, Contractor, and Interested and Affected Parties (I&APs) with regard to this EMP and matters incidental thereto;
- ❖ Monthly site inspection of all construction areas with regard to compliance with this EMP;
- ❖ Monitor and verify adherence to the EMP (audit the implementation of the EMP) and verify that environmental impacts are kept to a minimum;

- ❖ Taking appropriate action if the specifications for the EMP are not adhered to;
- ❖ Assisting the Contractor in finding environmentally responsible solutions to problems;
- ❖ Training of all construction personnel with regard to the construction and operation mitigation measures of this EMP and continually promoting awareness of these;
- ❖ Ensure that all contractors shall provide for adequate environmental awareness training (see Plan Component 5) of senior site personnel by the ECO and that all construction workers and newcomers receive an induction presentation on the importance and implications of this EMP. The presentation shall be conducted, as far as is possible, in the employees' language of choice;
- ❖ Monthly inspection to verify if new personnel have received appropriate environmental, health and safety training and training those who have not;
- ❖ Advising on the removal of person(s) and/or equipment not complying with the specifications of the EMP in consultation with the ER;
- ❖ Recommending the issuing of fines for transgressions of site rules and penalties for contraventions of the EMP; and
- ❖ Undertaking a monthly-month review of the EMP and recommending additions and/or changes to the document.

CONTRACTOR

The Contractor is responsible for the implementation, onsite monitoring and evaluation of the EMP. In order to ensure sound environmental management, the relevant sections of this EMP should be incorporated operation in all contracts of work outsourced, thus legally binding all appointed contractors.

The Contractor must keep records of all environmental training sessions, including names, dates and the information presented for inspection and reporting by the ER and ECO at all times.

3 RELEVANT LEGISLATION AND PERMIT REQUIREMENTS

The following table provides the legislative framework within which the EMP should be viewed:

STATUTE	PROVISIONS	PROJECT IMPLICATIONS
<p>THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, 1990:</p>	<p>The state shall actively promote and maintain the welfare of the people by adopting, inter-alia, policies aimed at the following:</p> <p>(i) <i>management of ecosystems, essential ecological processes and biological diversity of Namibia and utilisation of living natural resources on a sustainable basis for the benefit of all.</i></p>	<p>Ensure that the ecological integrity of the ecosystems of the area is protected.</p>
<p>ENVIRONMENTAL MANAGEMENT:</p>	<p><i>Environmental Management Act No.7 of 2007:</i></p> <p><i>EIA Regulation (EIAR) GN 57/2007 (GG 3212):</i></p> <p>In terms of Section 10.1(a), 10.1(b), 10.2(a), and 10.2(c) for environmental clearance for the construction of oil, water, gas and petrochemical and other bulk supply pipelines, the construction of public roads and the construction of a road with more than one lane of traffic in both directions.</p> <p>In terms of Section 8.8, 8.10 and 8.11, for construction and other activities in watercourses within flood lines, the reclamation of land from below or above the high-water and the alteration of natural wetlands are listed activities.</p> <p>Prescribes the procedures to be followed for authorisation of the project (i.e. Environmental clearance certificate).</p>	<p>Evaluate if the alignment of the street will impact on the social and natural environment.</p> <p>Determine if the risk of flooding of the erven is at acceptable levels.</p> <p>Determine if proposed limited infill would impact the function of the watercourse or cause flooding elsewhere.</p> <p>Determine how wastewater pipelines in the riverbed should be designed, constructed and maintained to prevent groundwater and other pollution.</p>

<p>WATER AND RESOURCES MANAGEMENT:</p>	<p><i>The Water Act No. 54 of 1956 and Water Resources and Management Act No.27 of 2007 Section 92:</i></p> <p>Section 92 (1), A person may not engage in any construction work or activity that causes or is likely to cause, the natural flow conditions of water in to or from a watercourse to be modified, unless the Minister has granted prior written approval for the work or activity to be carried out.</p> <p>Section 100 (e) consult with the regional Council or local authority in determining the geographic extent of flood plain areas in its region or local authority, as the case may be, and assist any such councils in regulating the development and use of land within floodplain areas</p> <p>Section 100 (f) prescribe measures for control and management of storm and flood risk within local authority areas.</p> <p>Section 101 (b) development on the banks of any wetland or dam; and</p> <p>Section 101 (c) the removal of rocks, sand or gravel or any other material from a watercourse.</p>	<p>Assess the potential risk that the planned activities may have on both the watercourse on the one hand and future occupants of the land on the other.</p>
<p>THE PUBLIC HEALTH AND HEALTH AND SAFETY REGULATIONS:</p>	<p><i>The Public Health Act 36 of 1919 as amended and the Health and Safety Regulations:</i></p> <p>These acts control the existence nuisances such as litter that can cause a threat to the environment and public health.</p>	<p>Prevent activities which can have an impact on the health and safety of the public.</p>

<p>POLLUTION CONTROL AND WASTE MANAGEMENT BILL:</p>	<p><i>Pollution Control and Waste Management Bill:</i></p> <p>This bill aims to promote sustainable development and to prevent and regulate the discharge of pollutants into the environment.</p>	<p>Consider the risk of pollution as a result of the sewer infrastructure in the riverbed.</p>
<p>LABOUR:</p>	<p><i>Labour Act. 11 of 2007:</i></p> <p>This bill aims to protect workers and their environment which they work in.</p>	<p>Ensure the protection of workers' rights and safety in Namibia.</p>
<p>COMPENSATION POLICY:</p>	<p><i>Cabinet Compensation Policy Guidelines for Communal land:</i></p> <p>Providing compensation to individuals regarding the relocation of people, removal of fruit trees or the development of Mahango fields, within communal land.</p>	<p>Assess to what extent the proposed policy complies with the provision of the plan to ensure the rights of individuals within communal land.</p>

PLANNING AND DESIGN PHASE**Table 2: Management Requirements for the Planning and Design Phase**

ASPECT	MANAGEMENT REQUIREMENTS
Natural Building Material	All building material (sand and gravel) must be sourced from a local registered borrow pit only. Road building material, (G4, G5, etc. material) must be sourced in collaboration within Opuwo from approved borrow pits within the townlands. If suitable material can only be sourced from untouched land to create a new borrow pit, then that is legally subject to an EIA as well by the Council.
EMP Implementation	Relevant sections of this EMP should be included in the tender documents for all construction so that tenderers can make provision for implementation of the EMP.
Financial Provisions	<ul style="list-style-type: none"> • Financial provision for the facilitation of an induction programme for senior, temporary construction personnel as well as subcontractors and associated personnel should be included as a cost item within tenders concerning the construction and/or operation and maintenance of the proposed development. • Financial provision for the compilation of a Tree Management Plan should be included as a cost item within construction tender documents.
Recruitment	<ul style="list-style-type: none"> • Provisions designed to maximise the use of local labour should be included within tenders concerning the construction of bulk and reticulation services. • A provision stating that all unskilled labour should be sourced locally should be included in tenders concerning the construction of all services of the development. • Specific recruitment procedures ensuring local firms enjoy preference during tender adjudication should be included in tenders concerning the construction of the development's bulk services. • Provisions promoting gender equality pertaining to recruitment should be included in tenders concerning the construction of the township services. • Women should be given preference for certain jobs (e.g. those jobs that require relatively less physical strength).

4 CONSTRUCTION MITIGATION DETAIL

Table 3 provides a scale overview of all the major environmental management themes pertaining to both generic and site-specific construction mitigation detail. This table serves as a reference for the mitigation detail that follows subsequently for each theme. This is done to simplify the implementation of the construction component of this EMP.

Table 3: Generic and Site-Specific Environmental Management Actions:

THEME:	OBJECTIVE:	MITIGATION DETAIL:	
		GENERIC:	ITE-SPECIFIC:
WASTE MANAGEMENT:	Minimise and avoid all waste pollution associated with construction.	PLAN COMPONENT 1	YES
HEALTH AND SAFETY MANAGEMENT:	Focusing on the wellbeing of the labourers on and the community near the construction.	PLAN COMPONENT 2	YES
NOISE AND DUST MANAGEMENT:	Minimise and avoid all noise and dust associated with construction.	PLAN COMPONENT 3	YES
TRAFFIC MANAGEMENT:	Minimise and avoid traffic impacts.	PLAN COMPONENT 4	YES
ENVIRONMENTAL TRAINING AND AWARENESS:	Awareness creation regarding the provisions of the EMP as well as the importance of safeguarding environmental resources.	PLAN COMPONENT 5	YES
ENVIRONMENTAL CONSERVATION:	Minimise the effect of the activity and protect the social environment in which it is happening.	PLAN COMPONENT 6	YES
EMPLOYMENT /RECRUITMENT	Ensure the protection of workers' rights and safety in Namibia.	PLAN COMPONENT 7	YES
STAKEHOLDER COMMUNICATION:	Provide a platform for stakeholders to raise grievances and receive feedback and hence, minimise conflict.	PLAN COMPONENT 8	YES
SOCIO-ECONOMIC AND MISCELLANEOUS:	Protecting cultural and general wellbeing of the affected.	PLAN COMPONENT 9	YES

4.1 PLAN COMPONENT 1: WASTE MANAGEMENT

At the Opuwo construction site, high importance shall be placed on waste management, and it needs to be performed daily. Solid waste is the expected significant source of waste at the construction site, and therefore, a **Waste Management Plan** (WMP) should be compiled. The WMP must address measures for the uses and the disposal of general waste and hazardous waste at the site, as indicated below:

4.1.1 CONSTRUCTION WASTE MANAGEMENT:

GENERAL WASTE:

- The construction site should be kept tidy at all times. All general construction waste produced should be cleaned and contained daily,
- No waste may be buried or burned,
- No waste may be dumped in any watercourse in and around the project area,
- A sufficient number of separate waste containers (bins) for hazardous and domestic/general waste must be provided onsite. These should be clearly marked as such, and
- Construction labourers should be sensitised to dispose of waste in a responsible manner and not to litter.

HAZARDOUS WASTE:

- All heavy construction vehicles and large fuel-powered equipment on the site should be provided with a drip tray,
 - If the vehicle used is suspected of having an oil leakage, drip trays are to be transported with vehicles wherever they go on site.
 - Drip trays should be cleaned daily, and spillage handled, stored, and disposed of as hazardous waste.
- Spilled concrete (wet) should be treated as waste and disposed of by the end of each day in the appropriate waste containers,
- Unbound cement (dry) in its raw state and cement infused water from mixers are classified as hazardous waste, due to its high alkalinity content. Treatment would be the same as for hazardous waste and disposal of such should take place in the appropriate labelled hazardous waste containers,

- A hazardous waste spill clean-up kit should be kept onsite, and its stock replenished as needed. The kit will consist of the following items (with the numbers of each item is up to the discretion of the ER):
 - Medium-sized shovels, strong plastic bags, drip trays, dust masks, heavy-duty gloves, and a biodegradable hand wash (degreasing) agent, and
- A storage location must be provided for the use of all hazardous substances (e.g. fuel etc.) or chemicals. The storage area must be of an impermeable surface; this is bonded awaiting use and disposal afterwards.

The duration of the phase is short term (0-5 years) and will end at the start of the operational phase. The responsibility to implement of the EMP, onsite monitoring and evaluation of the EMP / WMP lies with the Contractor, environmental control officer and the ER.

4.1.2 OPERATIONAL WASTE MANAGEMENT:

GENERAL WASTE:

- The development needs to provide efficient waste management infrastructure for household and business, which will include recycling infrastructure,
- The household and business waste needs to be collected by the Opuwo Council or service provider, and
- Sewerage needs to be pumped through a closed system pipeline to the proposed oxidation ponds.

The timeframe of the actions mentioned above are long term, and the responsibility and monitoring lie with the Opuwo Town Council who will be responsible for the maintenance of the sewerage pipelines after construction and the solid waste removal.

4.2 PLAN COMPONENT 2: HEALTH AND SAFETY

The health and safety aspect of the workspace is something that cannot be understated; considering that unexpected severe events can occur at any given moment.

4.2.1 HEALTH AND SAFETY MANAGEMENT:

The construction industry is fraught with hazards; therefore, careful planning and prevention measures are necessary to reduce the risk of serious injuries while on duty.

The Contractor needs to apply to the Labour Act. Nr 11 of 2007 in conjunction with Regulation 156, 'Regulations which describe the health and safety of employees at work'.

HIV/AIDS AND TB TRAINING:

The Contractor should approach the Ministry of Health and Social Services to appoint a health officer to facilitate HIV/AIDS and TB education programmes periodically onsite during the construction phase.

ROAD SAFETY:

- Vehicles contents/consignments should be adequately secured to avoid items falling off the vehicle.
- All trucks carrying sand or fine material loads should be covered with a shade net cover to prevent these materials from being blown off onto approaching vehicles from both directions.
- No construction vehicle may be used to transport personnel to and from the construction site. This is an offence and punishable by law due to the extreme safety risk involved.

SAFETY AROUND EXCAVATED AND WORK AREAS:

- A meeting with the neighbouring community shall be held, and the safety precautions of the construction area explained,
- Excavations should be left open for an absolute minimum time only,
- Excavate short lengths of trenches and box areas for services or foundations in such a way that the trench will not be left unattended for more than 24 hours,
- Demarcate the following areas with danger tape or orange demarcation netting:
 - All excavation works;
 - Soil and other building material stockpiles; and

- Temporary waste stockpiles.
- Provide additional warning signage in areas of movement and in "no person allowed" areas where workers are not active;
- Work areas must be set out and isolated with danger tape on a daily basis,
- All building materials and equipment are to be stored only within set out and demarcated work areas;
- Only construction personnel will be allowed within these demarcated work areas; and
- Two dry chemical powder fire extinguishers should be available at fuel storage areas and the workshop area, as well as the site office.

ABLUTIONS:

- Separate ablutions (toilet) should be available for men and women and should clearly be indicated as such,
- Portable toilets (i.e. easily transportable) should be available at every construction site:
 - 1 toilet for every 25 females.
 - 1 toilet for every 50 males.
- Sewage waste needs to be removed on a regular basis to an approved (council) sewage disposal site. Alternatively, pump it into sealable containers and store it until it can be removed, and
- Workers responsible for cleaning the toilets should be provided with latex gloves and masks.

4.2.2 OPERATIONAL PHASE HEALTH AND SAFETY MANAGEMENT:

The site has low lying areas which are known for flooding during the raining season. Low lying contours were identified, which forms flood areas within the sites. The 1 in 25-year floodline Knight Pièsold recommended for the development is based on a maximum flow depth of 0.03 m.

Flood and stream areas are accommodated within public open space within the layouts. This is to ensure that limited development takes place within the flood area. Flood areas within the road reserve will be filled when constructing the road. However, mitigation measures must be put in place to prevent any flood risk within the layout.

Flood Risk Impact Preventions:

- The development should take into account the river channels and the 1 in 25-year floodline;

- All services (power and sewer lines) need to be placed in the evaluated road reserve, to prevent it from being influenced during raining seasons;
- The sewerage network needs to link up with the nearby sewer line which runs through the area. The system will be incorporated with the nearest extensions sewerage network, which flows to the oxidation ponds located east of the settlement. A closed gravity system needs to be used to prevent any future pollution in the area during raining seasons;
- The residents or Contractor need to inform the Council's sewer or electrical department if they have problems with the sewer or electrical network; and
- Culverts need to be maintained.

The timeframe of the actions mentioned above are continuous, and the responsibility and monitoring lie with the Opuwo Town Council or the owner of the new erven.

4.3 PLAN COMPONENT 3: NOISE AND DUST

Noise and dust can cause stress and health impacts on nearby residents, patients at the clinic, students of the nearby schools and construction workers. Therefore, high priority needs to be placed on mitigation measures to manage noise and dust pollution.

4.3.1 NOISE PREVENTION:

Mitigation measures need to be in place to prevent noise pollution within the area.

- No noisy activities onsite between 17:00 and 07:00;
- Construction activities on Saturday should be between 08:00 and 13:00;
- Sunday and public holidays - no noisy activities onsite; and
- In the event that work is necessary outside the designated working hours, all receptors (residents or businesses within 500 m from the work areas) need to be notified at least two days in advance.

The duration of the actions mentioned above are short term, and the impact ceases after the operational phase starts. The responsibility for monitoring lies with the Contractor, Environmental Control Officer of the development, and the Opuwo Town Council.

4.3.2 DUST PREVENTION:

The movement of construction vehicles on bare soil will cause excessive dust, which will expose nearby residents and workers on the site to dust pollution. Fugitive dust from construction sites can spread crystalline silica, which can impact nearby residents and site workers' health.

Fugitive dust from the construction site can also cause poor visibility for road users using the main road B1. Mitigation measures must be put in place to prevent dust pollution.

The following measures are provided below to minimise dust:

- Provide a suitable screen/panels surrounding the construction site, to reduce the spread of dust from the site;
- Dust palliatives need to be applied to the road surfaces to prevent dust clouds;
- A watering truck with semi-purified water should be used on gravel roads with the most vehicle movement, especially during dry and windy conditions;
- Stockpiles of building material and earth material need to be kept moist, or the surfaces need to be kept stabilised. A nylon mesh cover which reduces dust lift with $\pm 50\%$ can be an alternative option;
- Limit the size of stockpiles of large quantities of soil, topsoil and other fine material;
- Dust protection masks should be issued to all workers exposed to dust on the site; and
- Improve awareness of ambient air quality and consideration regarding wind speed and direction when undertaking dust-generating activities.

The duration of the actions mentioned above are short term, and the impact ceases after the operational phase starts. The responsibility for monitoring lies with the Contractor, Environmental Control Officer of the development, and the Opuwo Town Council.

4.4 PLAN COMPONENT 4: TRAFFIC MANAGEMENT

The construction of the infrastructure will have a disruptive impact on the surrounding traffic. Mitigation measures should be in place to minimise the anticipated disruption of the surrounding traffic during the infrastructure upgrade construction.

4.4.1 TRAFFIC DURING THE CONSTRUCTION PHASE:

The following measures are provided to minimise traffic:

TRAFFIC MITIGATION:

- Develop a **Traffic Plan** to reduce traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with shuttle service;
- Schedule operations, affecting traffic for off-peak hours. Minimise obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites;
- Construction vehicles should be restricted during peak hours, between 07:00-08:00 and 17:00-18:30; and
- Appropriate advance road warning signage should be used on the site.

The duration of the actions mentioned above is short term and will end when the operation phase commences. The responsibility for implementation and monitoring lies with the Contractor. However, the road infrastructure will become permanent, and the responsibility for maintaining the streets will rest with the Opuwo Town Council after construction.

4.5 PLAN COMPONENT 5: ENVIRONMENTAL TRAINING AND AWARENESS

All construction workers at the development site are to undergo environmental training and awareness programs. The following aspects should be included:

- Explanation of the importance of complying with the EMP;
- Discussion of the potential environmental impacts of construction activities;
- Employees' roles and responsibilities, including emergency preparedness;
- Explanation of the mitigation measures that must be implemented when particular workgroups carry out their respective activities; and
- Explanation of the specific mitigation measures within this EMP, especially unfamiliar

provisions.

During the training sessions, an attendance register should be completed, including the names, positions designations and signatures of everyone who attended the training and kept on file for auditing purposes. Thereby, all the training sessions prior to it being conducted must be approved by the ECO.

4.6 PLAN COMPONENT 6: ENVIRONMENTAL CONSERVATION

4.6.1 TREE MANAGEMENT PLAN:

The scoping report did not identify large, protected trees. However, trees in the project site will remain intact as far as possible during development. Trees should be accommodated on individual erven, and along the road in such a manner as to allow the positioning and construction of residential buildings and construction of the road without necessitating removal.

A **Tree Management Plan** shall be implemented, which should include the following content at the minimum level:

- All protected trees should be surveyed;
- Permits shall be obtained before the removal of protected trees, by the ECO;
- Protected trees which are removed shall be replaced and used within the landscaping of the development; and
- The forestry officers can also direct the Developer to nearby nurseries where additional trees may be bought.

The duration of the actions mentioned above is long term. The responsibility for the implementation of the **Tree Management Plan** lies with the Developer, Contractor and Council.

4.6.2 MATERIALS CAMP AND LAY-DOWN AREAS:

With the ER's assistance, the Contractor needs to identify a suitable location for the **materials camp and lay-down** areas. The following should be considered in selecting these sites:

- The areas designated for the proposed services infrastructure should be used as far as possible; and
- Sensitive areas should be avoided (e.g. watercourses).

The duration of the actions mentioned above is short term. The responsibility for the implementation of the EMP lies with the Contractor, ER and ECO.

4.7 PLAN COMPONENT 7: EMPLOYMENT/RECRUITMENT

The construction of the development will take place over several years and will employ about up to a thousand (500) workers. It is not clear at this stage which skill sets would be required, nor the extent to which employment opportunities could be created in the project area.

The benefits to the local community from jobs could be dependent on the extent of local recruitment and the measures put in place to ensure preferential local gender-based recruitment where possible.

4.7.1 RECRUITMENT:

The formal recruitment process should be compiled and shall include the following minimum provisions:

- The ER and the Contractor shall design a recruitment process whereby local residents shall be given preference;
- Ensure that all sub-contractors are aware of recommended recruitment procedures and discourage any recruitment of labour outside the agreed-upon process;
- Contractors should give preference in terms of recruitment of sub-contractors and individual labourers to those from the project area and only then look to surrounding towns; and
- Clearly explain to all job-seekers the terms and conditions of their respective employment contract (e.g. period of employment, etc.) – make use of interpreters when required.

4.7.2 LEGISLATION:

The Contractor needs to adhere to the legal provisions in the Labour Act (Labour Act. 11 of 2007), for the recruitment of labour (target percentages for gender balance, optimal use of local labour and SME's, etc.) in the contract.

4.8 PLAN COMPONENT 8: STAKEHOLDER COMMUNICATION

Within the construction phase, the Developer should draft a **Communication Plan**. Thereby the ER in collaboration with the Developer must appoint an ECO to liaise between the Contractor, Stakeholders, Developer, and Consultants. The appointed Contractor shall appoint a person from the construction team to take responsibility for the implementation for all provisions of this EMP.

4.8.1 COMMUNICATION PLAN:

In addition, the plan shall specify:

- How stakeholders, who require ongoing communication for the duration of the construction period, will be identified and recorded and who will manage and update these records,
- How these stakeholders will be consulted on an ongoing basis, and
- How grievances shall be handled – i.e. how concerns can/ will be lodged/ recorded and how feedback will be delivered as well as further steps of arbitration in the event that feedback is deemed unsatisfactory.

4.8.2 GENERAL COMMUNICATION:

- The Contractor shall at every site meeting report on the status of the implementation of all provisions of the EMP,
- The ECO must list the stakeholders of the project and their contact details with whom ongoing communication would be required for the duration of the contract. This list, together with the **Communication Plan**, must be agreed upon and given to the ER before construction commences,
- The Communication Plan, once agreed upon by the Developer, shall be binding,
- All communication with the stakeholders must take place through the ECO,
- A copy of the EMP must be available at the site office and should be accessible to all stakeholders,
- The Contractor should liaise with the Developer regarding all issues related to community consultation and negotiation before construction commences,
- A procedure should be put in place to ensure that concerns raised have been followed-up and addressed, and

- All people on the stakeholder's list should be informed about the availability of the complaints register in writing by the ER prior to the commencement of construction activities.

Table 4: Public Consultation Process

THE PROCESS:	DESCRIPTION OF THE PROCESS:
PLANNING PHASE:	
I&APs IDENTIFICATION:	Key Interested and Affected Parties (I&APs) were identified and included in a list of I&APs (Appendix D.3). The list included the Opuwo Town Council council.
NEWSPAPER NOTICES:	Notices were placed, for two consecutive weeks in two widely circulated newspapers, briefly describing the developments and their locality, inviting the public to register as I&APs (Appendix C.1).
INFORMATION PROVISION:	A Background Information Document (BID) was compiled that contained essential information about the project (Appendix C.2).
MEETINGS:	A Public Meeting was held on the 3rd of December 2020 .
Public Comments Period:	The public comments period was from the 12th of November to the 11th of December 2020 .
THE CONSTRUCTION PHASE:	
COMMUNICATION PLAN:	<ul style="list-style-type: none"> ❖ The Contractor shall at every site meeting report on the status of the implementation of all provisions of the EMP. ❖ The ECO must list the project stakeholders and their contact details with whom ongoing communication would be required for the duration of the contract. Together with the Communication Plan, this list must be agreed upon and given to the ER before construction commences. ❖ The Communication Plan, once agreed upon by the Developer, shall be binding. ❖ All communication with the stakeholders must

take place through the ECO.

- ❖ A copy of the EMP must be available at the site office and should be accessible to all stakeholders.
- ❖ The Contractor should liaise with the Developer regarding all issues related to community consultation and negotiation before construction commences.
- ❖ A procedure should be put in place to ensure that concerns raised have been followed-up and addressed.
- ❖ All people on the stakeholder's list should be informed about the availability of the complaints register in writing by the ER prior to the commencement of construction activities.

4.9 PLAN COMPONENT 9: SOCIO-ECONOMIC AND MISCELLANEOUS

Heritage or Archaeological Sites

In the case where a heritage or archaeological site is uncovered or discovered during the construction phase of the development, a 'chance find' procedure should be applied as follows:

- If operating machinery or equipment to stop work immediately;
- Demarcate the site with danger tape;
- Determine GPS position if possible;
- Report findings to foreman;
- Cease any works in the immediate vicinity;
- Visit the site and determine whether the work can proceed without damage to the findings;
- Determine and demarcate exclusion boundary;
- Inspect site and confirm the exact location.
- Advise the National Heritage Council (NHC) and request written permission to remove findings from the work area; and
- Recovery, packaging and labelling of findings for transfer to National Museum.

Should human remains be found, the following actions will be required:

- Apply the 'chance find' procedure as formerly described;
- Schedule a field inspection with an archaeologist to confirm that the remains are human;
- Advise and liaise with the NHC and Police; and

- Remains will be recovered and removed either to the National Museum or the National Forensic Laboratory.

If it is found that the construction site is on a heritage site or an archaeological site, the Developer will need to apply for a permit from the National Heritage Council in order to carry out works in a protected place as indicated in the National Heritage Act 27 of 2004.

APPENDIX A

CONSENT

Tel: 065 273 007/332
Fax: 065273 250
P.O. Box 294
Enq. Eric N. Muleko
Email: ericmuleko@gmail.com



Mbumbijazo Muharukua Avenue
Email: opuwotc@gmail.com
Opuwo, Namibia

OPUWO TOWN COUNCIL

OFFICE OF THE CHIEF EXECUTIVE OFFICER

17 September 2020

Urban Dynamics
P.O Box 20837
Windhoek
Namibia

Dear Sir

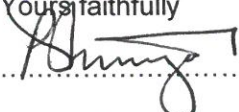
APPLICATION FOR LAYOUT APPROVAL FOR PROPOSED PORTIONS B & Y OF THE FARM OPUWO NO. 1115 AND NO. 876

The Town Council at its Ordinary Council Meeting held on the 06 August 2020, as per Resolution No. **ORD 07 – 28/07/2020-07**, resolved to approve:

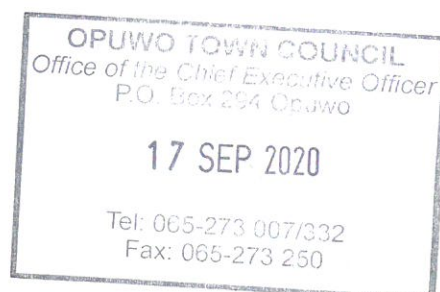
1. Subdivision of the Farm Opuwo Extended Townlands No. 1115 into Portion A, B, (1115) and Remainder
2. Subdivision of the Farm Opuwo Townlands No. 876 into 4 Portions, W, X, Y, Z, (876) and Remainder;
3. Need and Desirability of Township Establishment of Portions *1115 and Y/876;
4. Township Establishment and Layout Approval for Proposed Portions B/115 and
5. Township Establishment and Layout Approval for Proposed Portions Y/876

The approved Zoning plan is attached. You may proceed to submit the above-mentioned application to NAMPAB and the Township Board for final approval. Attached is the council resolution and signed power of attorney

Thank you for your usual cooperation

Yours faithfully


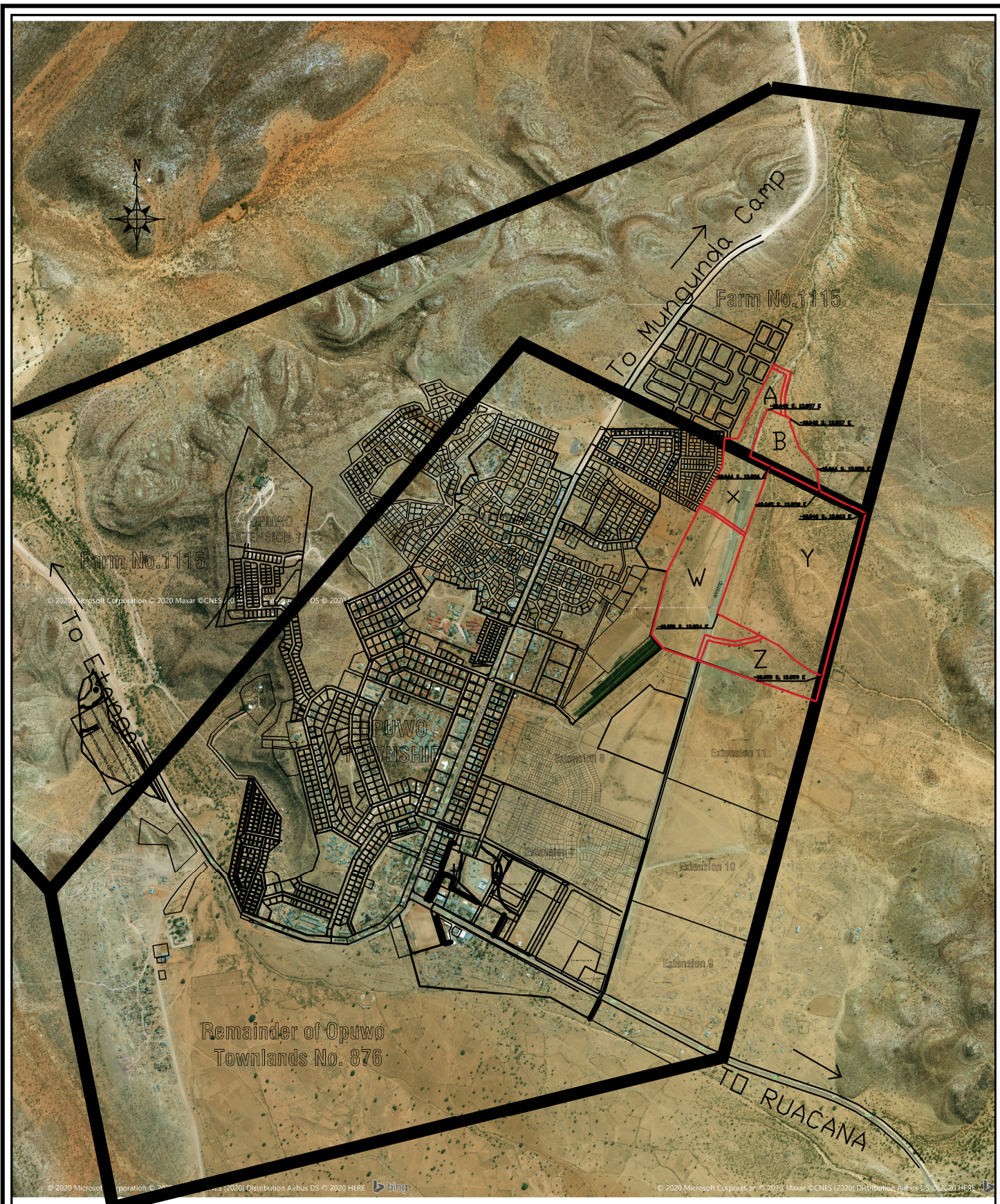
Petrus Shuuya
Chief Executive Officer



All official correspondence must be addressed to the Chief Executive Officer

APPENDIX B

LOCALITY PLAN



**LOCALITY OF THE PORTIONS B OF THE FARM OPUWO TOWNLANDS NO. 1115
AND PORTION Y OF THE OPUWO TOWNLANDS NO. 376**

The copyright of this drawing is reserved

DESIGN	URBAN DYNAMICS	DATE	August 2020
DRAWN	URBAN DYNAMICS	DATE	August 2020
REVISION		DATE	
JET: PROJECT NUMBER/ DRAWING NAME		1196/ Drawings	
SCALE	1 : 25 000	DRAWING NAME	Opuwo updated option 2 July 2020 HM

LEGEND	
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PREPARED BY:



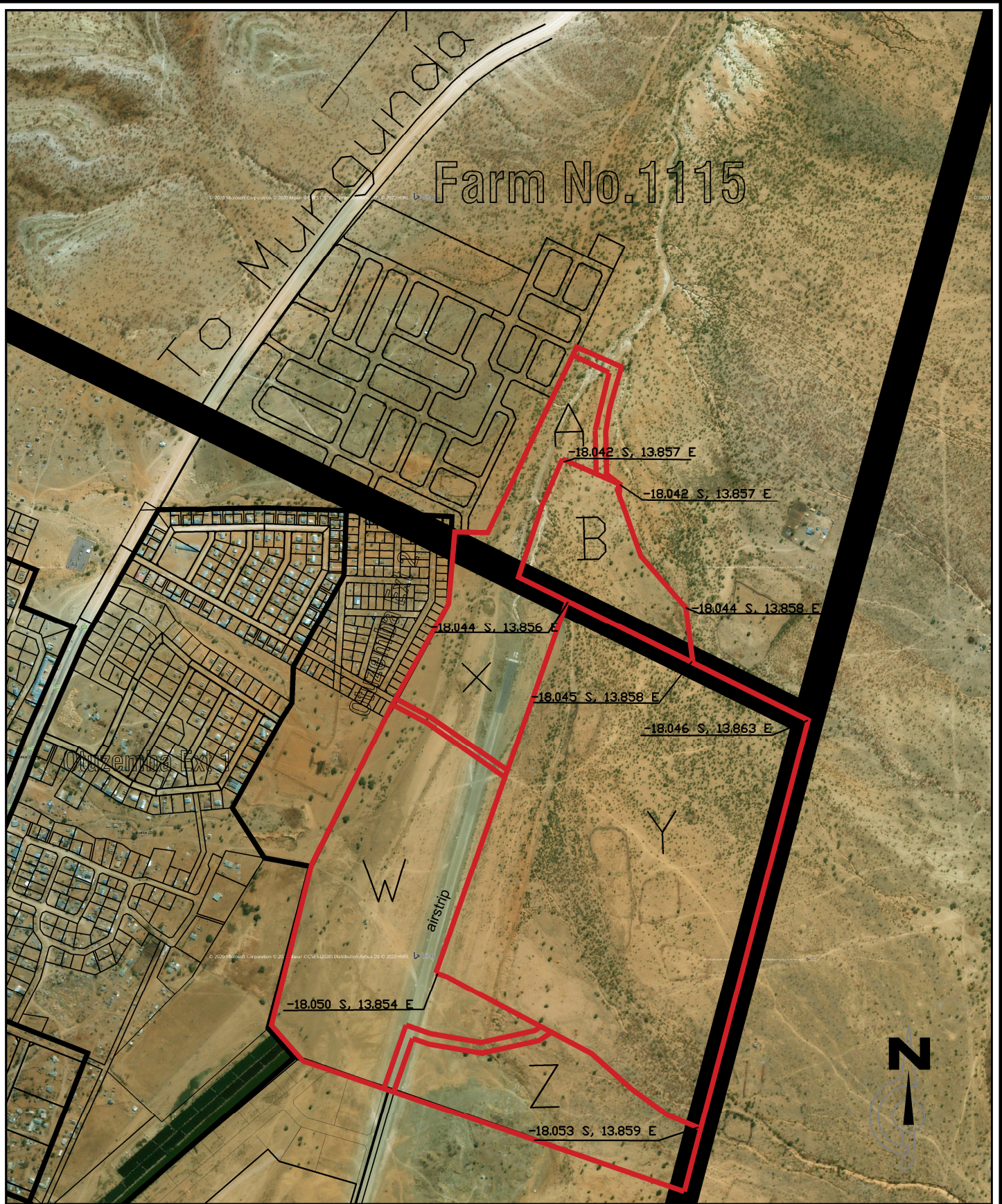
URBAN DYNAMICS
town and regional planners

45 NELSON MANDELA AVE.
KLEIN WINDHOEK, NAMIBIA

P O BOX 20837
WINDHOEK
Namibia

Telephone +264-61-240300
Telefax +264-61-240309
E-mail uda@udanam.com
Web www.udanam.com

Farm No.1115



LOCALITY OF THE PORTIONS B OF THE FARM OPUWO TOWNLANDS NO. 1115 AND PORTION Y OF THE OPUWO TOWNLANDS NO. 376

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DESIGN	DATE
URBAN DYNAMICS	August 2020
DRAWN	DATE
URBAN DYNAMICS	August 2020
REVISION	DATE
JET: PROJECT NUMBER/ DRAWING NAME	
1196/ Drawings	
SCALE	DRAWING NAME
1 : 10 000	Opuwo updated option 2 July 2020 HM

LEGEND

PREPARED BY:



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APPENDIX C

PUBLIC CONSULTATION PROCESS

APPENDIX C.1

NOTES AND ADVERTISEMENTS

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Fax (061) 220584

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- Cancellations and alterations: 16:00, two days before date of publication in writing only

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Legal Notice N\$460.00
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Birthdays from N\$200.00
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Tombstone Unveiling from N\$200.00
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Medical X-Ray Centre is an equal opportunity employer and invites proactive, professional, caring, ethical person to apply for the following positions:

1. Position: Radiographer

Qualifications, Skills, Competencies and Experience Requirements:

- Bachelor of Medical Imaging.
- Minimum 4 years' experience as a Radiographer.
- Valid license to practice the profession must be registered with HPCNA.
- Namibian citizen or eligible to work within Namibia.

Should you meet the above-mentioned requirements, kindly submit your CV and all certified supporting documents at the Human Resource Department, Ondangwa Private Hospital, P.O. Box 4027 Ondangwa or forward them via e-mail to: recruitment@oph.com.na

FARM MANAGER

VENENATUM FARM 1005 GROOTFONTEIN

QUALIFICATION

- Certificate/Diploma/Degree in Agriculture
- Driver's license Code CE
- Knowledge in agronomy/animal science
- At least 3 years experience in industry

DUTIES

- Able to run the farm
 - Able to do selection and breeding of animals
 - Knowledge of administering vaccines through three main avenues; subcutaneous, intramuscular and intravenous
 - Able to intervene in difficult animal birth
 - Able to manage multiple enterprises namely: poultry, animal, crop and charcoal production
- Interested individuals should send their CV to: venenatumfarm@gmail.com

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CHIEF FINANCIAL OFFICER

We are looking for persons with the following requirements urgently:

- Requirements:**
- Grade 12
 - Multilingualism – Spanish and English
 - + 10 years of experience in Accounting and Management
 - + 10 years of Experience in Financial reporting
 - + 5 years of Experience in Taxation
 - + 5 years of Experience in International Reporting Standards (IFRS-EU)
 - + 5 years of Experience in the Fishing Industry and Aquaculture Accounting
 - Proficient in Microsoft Office Systems
 - Proficient in Computerised Accounting
 - Computer literate and Good command of Business software

Qualifications:

- Degree in Business Administration
- Post Graduate Degree in Auditing and Accounting

- Responsibilities:**
- Financial Reports and Accounting
 - Auditing, Financial statements
 - Monitoring Accounts and expenses
 - Management of accounting and maintaining accounting policies
 - Analyse internal controls and reporting
 - Team management
 - Preparing Activity Reports
 - Financial Forecasts/Projection
 - Financial Management Control
 - Management Administration
 - responsible for professional services to the review, issuance of recommendations of the key processes of the company
 - Analyse markets for business

Should you meet the above requirements, please send a resume and cover letter, including all copies of relevant qualifications to namvacancies2019@gmail.com

Closing date: 11 NOVEMBER 2020

Please note that only shortlisted candidates who meet all of the requirements and qualifications will be contacted. No CVs and documentation will be returned.

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Grades: 8 to 11

Minimum: 8 Learners per Teacher

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Aucor Namibia
ONGWEDIVA REPO & SALVAGE AUCTION 16 - 19 NOVEMBER 2020
Websites: www.aucor.auction

Duly instructed by the Bank, in terms of the Credit Agreement Act, Aucor Namibia (Pty) Ltd, will sell the following Bank Repossessed Vehicles by Online & Public Auction

- | #AUTOMOTIVE TRUCKS, BAKKIES, 4X4's & SUV's : | #AUTOMOTIVE TRUCKS & SEDANS: |
|--|------------------------------------|
| 2016 ISUZU KB240 4X4 | 2017 IVECO DAILY 50C15 V16 23 SEAT |
| 2 X 2015 CHEVROLET 1.4 UTILITY | 2016 TOYOTA COROLLA 1.6 |
| 2015 CHEVROLET 1.4 CLUB | 2014 HONDA BRIO 4D |
| 2013 CHEVROLET CORSA 1.4 A/C | 2012 VW GOLF 2.0 GTI |
| 2012 ISUZU KB240 LE | |

VARIOUS SALVAGE VEHICLE ie.:
TOYOTA, ISUZU, NISSAN, FORD, VW, JEEP, KIA, MAZDA, CHEVROLET, ETC
Registration & Bidding on: www.aucor.auction
Online Bidding: Starts Monday 16 Nov 2020 @ 10:00
Live Webcast Auction Starts Thursday 19 Nov 2020 @ 10:00
Viewing: Ongwediva 16 - 18 November 2020 @ 9 am - 4 pm
COVID-19 NOTE: Lockdown restrictions apply. T & C apply. Buyer's premium will be charged. Details subject to change without prior notice.

BRAKWATER TRUCK & SALVAGE AUCTION: 23 - 26 NOVEMBER 2020
Websites: www.aucor.auction

Duly instructed by the Bank, in terms of the Credit Agreement Act, Aucor Namibia (Pty) Ltd, will sell the following Bank Repossessed Vehicles by Online & Public Auction

- | #AUTOMOTIVE TRUCKS, TRAILERS & BUSES: | #AUTOMOTIVE 4X4's, SUV'S & SEDANS: |
|---------------------------------------|-------------------------------------|
| 2018 ISUZU NPS NQR 19 SEATER BUS | 2016 NISSAN NP200 1.6i |
| 2018 ISUZU NPS NQR 19 SEATER BUS | 2011 L/ROVER DISC 4 3.0 TD V6 SE |
| 2018 ISUZU NPS NQR 19 SEATER BUS | VARIOUS SALVAGE VEHICLE ie.: |
| 2018 ISUZU FTR 850 25 SEATER BUS | TOYOTA, FORD, NISSAN, HINO, KIA |
| 2018 ISUZU FTR 850 25 SEATER BUS | ISUZU, VW, MBENZ, BMW, AUDI, |
| 2018 ISUZU F850 25 SEAT BUS | HYUNDAI, RANGE ROVER, HONDA, |
| 2018 ISUZU NQR 500 TOUR BUS | MITSUBISHI, SCANIA, ACHOR, ETC. |

Registration & Bidding on: www.aucor.auction
Online Bidding: Starts Monday 23 November 2020 @ 10:00
Live Webcast Auction: Thursday 26 November 2020 @ 10:00
Viewing: Brakwater 23 - 25 November 2020 @ 9 am - 4 pm
COVID-19 note: Lockdown restrictions apply. T & C apply. Buyer's premium will be charged. Details subject to change without prior notice

CONTACT US AT:
WINDHOEK: TEL: +264 61 257945/6
ONGWEDIVA: TEL: +264 65 230 186
EMAIL: info@aucornamibia.com www.aucornamibia.com



ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

INVITATION TO COMMENT / PARTICIPATION

Rodger Kauta; Mining Claims- 72194, 72195, 72196,72197 & 72198 in Gobabis District Omaheke Region

CENTRE FOR GEOSCIENCES RESEARCH cc has been appointed to undertake an Environmental Impact Assessment (EIA) in accordance with the Namibian Environmental Management Act (2007) and it Regulations (2012).

Rodger Kauta; Mining Claims- 72194, 72195, 72196,72197 & 72198 in Gobabis District Omaheke Region is proposing to undertake mining of zeolite group of mineral (Sepiolite).

The mining is being undertaken in line with the mining programme that has been submitted to the Ministry of Mines and Energy in the application for award of the mining claims. Interested and affected parties are encouraged to register via email in order to receive the Background Information Document (BID) to the email below within a period of fourteen days from the date of advert to the email below, and information on a possible arrangement for a Public meeting.

All comments and concerns should be submitted to **CENTRE FOR GEOSCIENCES RESEARCH**. Please contact:

Mr Mulfie Siyambango
CENTRE FOR GEOSCIENCES RESEARCH cc
P.O. Box 31423 Pioneerspark
Windhoek, Namibia. 128A Bach Street
Tel: 061-3071577/ Cell: 0856419511
Email: cegeornam@gmail.com

Notice
Legal Notice

IN THE MAGISTRATE'S COURT FOR THE DISTRICT OF OSHAKATI

HELD AT OSHAKATI CASE NO. 61 /2019

In the matter between:

SIMSON AINGURA t/a AINGURA ATTORNEYS PLAINTIFF

and

TIMOTEUS NDEENGENAKO SHIIMI DEFENDANT

NOTICE OF SALE IN EXECUTION

In pursuance of a Judgment of the above Honorable Court dated 13th of SEPTEMBER 2019 the following goods will be sold in a sale in execution on 8th of DECEMBER 2020 at Advanced Refrigeration, Main Road, Oshakati at 12h00.

1 X TOYOTA HILUX
2.7 N9453U

TERMS OF SALE: VOETSTOOTS AND CASH TO THE HIGHEST BIDDER

DATED at OSHAKATI this 2ND day of OCTOBER 2020.

AINGURA ATTORNEYS
Legal Practitioners for Plaintiff
Per: **S AINGURA**
Room 205, Palms Complex
Cnr of Robert Mugabe & Main Road
OSHAKATI
(Ref: S18179)

IN THE MAGISTRATE'S COURT FOR THE DISTRICT OF OSHAKATI

HELD AT OSHAKATI CASE NO. 206/2018

In the matter between:

SIMSON AINGURA t/a AINGURA ATTORNEYS PLAINTIFF

and

PEINGEYO DAVID DEFENDANT

NOTICE OF SALE IN EXECUTION

In pursuance of a Judgment of the above Honorable Court dated, 13th of SEPTEMBER 2019 the following goods will be sold in a sale in execution on 8th of DECEMBER 2020 at Advanced Refrigeration, Main Road, Oshakati at 12h00.

1 X LOUNGE SUITE
1 X FLAT SCREEN TV
1 X TV TABLE
1 X FRIDGE
1 X TABLE
1 X MICRO WAVE
1 X ELECTRIC STOVE
1 X FRIDGE

TERMS OF SALE: VOETSTOOTS AND CASH TO THE HIGHEST BIDDER

DATED at OSHAKATI this 22ND day of SEPTEMBER 2020.

AINGURA ATTORNEYS
Legal Practitioners for Plaintiff
Per: **S AINGURA**
Room 205, Palms Complex
Cnr of Robert Mugabe & Main Road
OSHAKATI
(Ref: S17211)

Notice
Legal Notice

CALL FOR PUBLIC PARTICIPATION FOR A COMMUNITY MEETING AT KEETMANSHOOP

Notice is herewith given to interested and affected parties that application will be made to the Environmental Commissioner in terms of the Environmental Management Act 2007 (Act 7 of 2007) and the EIA Regulations (GN No. 30 of 6 February 2012 for the following:

KEETMANSHOOP COMMUNITY MEETING: ON 3 NOVEMBER 2020

Venue: Erf 2972, Tseiblaagte, Extension 6;
Time: 18:00;
Proponent: Development Workshop of Namibia;
Project Location: Keetmanshoop on Porton A of the Remainder of Keetmanshoop Town and Townland No.150;
Project: Establishment of Brukharos Proper.

Registration as Interested and Affected Parties: I&AP's are invited to register to receive the background information document and/or submit their written comments/questions/ concerns before **11 November 2020** Heidri Nel at: email: heidri@udanam.com and Allison Anderson at email allison@udanam.com Fax: 061 240 309, or Phone:061 240 300



CALL FOR PUBLIC PARTICIPATION FOR A COMMUNITY MEETING AT OPUWO

Notice is herewith given to interested and affected parties that application will be made to the Environmental Commissioner in terms of the Environmental Management Act 2007 (Act 7 of 2007) and the EIA Regulations (GN No. 30 of 6 February 2012 for the following:

OPUWO COMMUNITY MEETING: ON 3 NOVEMBER 2020

Venue: Opuwo Town Council, Boardroom;
Time: 10:00;
Proponent: Development Workshop of Namibia;
Project Location: Porton B of the Remainder of Farm Opuwo Townlands No. 1115 & on Porton Y of the Remainder of Opuwo Townlands No. 876.
Project: Opuwo Township Establishment.

Registration as Interested and Affected Parties: I&AP's are invited to register to receive the background information document and/or submit their written comments/questions/ concerns before **11 November 2020** Heidri Nel at: email: heidri@udanam.com and Tresia Amwaalwa at email tresia@udanam.com Fax: 061 240 309, or Phone: 061 240 300



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ENGINEERS/MINERS/MECHANICS/WELDERS
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Email infocareermarketing@telkomsa.net
BOOKING FEE R2300-00

URGENTLY HIRING FOR UK/USA/CANADA DRIVERS/SECURITY GUARDS/WELDERS

CALL 0027119726054/002784917253
BOOKINGS NOW OPEN
Email: infocareermarketing@telkomsa.net
Web: www.careermarketingint.com
BOOKING FEE R2500-00
GUARANTEED PLACEMENTS
CLOSING DATE 30 NOV 2020

mOshiwambo

Tuma etumwalaka lyoye efupi nenge "sms" konomola ndji 99902, omanga inoo shanga etumwalaka lyoye, tameka noshitya Oshi opo ihe to landulithako "osms" yoye. Osms kehe ota yi gu N\$1.

Ehangano lyaChina lya sindana po otendela yoomiliyona N\$530

... iilonga yetungo lyopate yokuumbugantu woshilongo

EPANGELO lyaNamibia okwa li lya gandja okontalaka yotendela yoomiliyona N\$530 kehangano lyomatungo lya yama kepangelo lyaChina opo li tunge opate ndjoka ya thaankwa tayi ka tungwa kuumbugantu woshilongo.

Oodokumente odhu ulike kutya ehangano lyokusila oshimpwiyu oopate moshilongo lyedhina Roads Authority (RA) okwa li lya gandja okontalaka kehangano lyedhina China Henan International Cooperation Group momasiku sho ga li 3 Novemba.

Otendela ndjoka oyo ku tunga opate yopokati kaTses naGochas.

Etokolo ndyoka inali nyanyukilwa komahangano ogendji gomoshilongo ngoka ga li ga ningi omaidilo giilonga mbyoka nelalakano kutya otaga vulu oku ka kala ga kaleka po ompito dhaaniilonga yawo.

"Eliko lyoshilongo otali nana nondatu ashike onkene natango otatu kutha mo oshimaliwa [moshilongo]," osho gumwe gomoshikondo shomatungo a popi ngaaka oshiwike sha zi ko.

Ashike nande ongaaka, omahangano ogendji

ngoka ga li ga holola ohokwe yokupewa okontalaka ya tumbulwa pombanda natango ogAachina.

Omahangano ngoka ongaashi China State Construction, Zhongmei Engineering Group, China Jiangxi International, China Geo-Engineering Corporation, Synohydro and Otjomuise JV, osho wo Shanxi Mechanical JV.

Omahangano galwe natango ga li ga tala ngele genongo taga fe gongombe okupewa otendela ndjoka omwa kwa telwa WBHO Construction, Unik Construction, NCR Joint venture, Avic-International Project

Engineering osho wo Shanxi Construction Investment Group.

Omukuluntuwiliki go-RA, Conrad Lutombi, mEtiyali okwa li a koleke kutya ehangano ndyoka lyedhina China Henan International Cooperation Group oyo lya li lya tothwa mo okupewa otendela ndjoka.

"Omolwankalo nuunene woprojeka ndjoka, ehogololo okwa li lya ningwa okupitila momaindilo gopandondo yopaigwana kwi ikwatelelwa kokatendo 30 kOveta yokulanda Iipambebe yepangelo," osho a popi ngaaka.

Omulandu ngoka gwegandjo lyompito komahangano gokondje yoshilongo, Lutombi, okwa popi kutya, ogwa pitika omahangano agehe kutya nee ogo moshilongo nenge ogo megumbo ga ningi omaidilo gotendela ndjoka, notashi ningwa mokutotha mo kwi ikwatelelwa kowino notseyo yi niwe komahangano ngoka.

"Ehangano ndyoka lya tothwa mo olya adha iipumbiwa ayihe lya oyo natango lya li lya pewa iintsya yi li pombanda pethimbo lyokutotha mo, noli na ondando yi li pevi," osho Lutombi a popi ngaaka.

Pauelele wa zi kuLutombi, otendela ndjoka oya li ya gandjwa kwi ikwatelelwa kompano nomilandu ndhoka dha li dha ziminwa pokati komahangano gaali, lyo-RA osho wo lyedhina KfW lyokOndowishi - ndyoka tali ka kwathela mokufuta otendela ndjoka.

Nomeuvathantsokumwe lyomahangano ngoka gaali okwa li kwa tokolwa opo ompito yaamboka ye na ohokwe yokutungo opate ndjoka, yi kale ya patulukila omahangano agahe kutya nee ogo kondje yoshilongo.

"Osha pumbiwa ndi shi popye mpaka, kutya oshi li oshinakugwanithwa sho-Roads Authority

okushilipaleke kutya omahangano gokondje yoshilongo ngoka ga pewa iilonga mbyoka oge na okukala ga gandja ontseyo komahangano gomoshilongo pethimbo lyiilonga yokutungo oprojeka yontumba," osho a popi ngaaka.

"Oshi li miipumbiwa kutya oopelesenda dhontumba dhofuto yokontalaka ndjoka odhi na okufutwa omahangano gopevi gomoshilongo ngoka taga ka pewa oshinakugwanithwa shiilongadhalwa iishona motendela ndjoka, nomahangano ngoka gopevi oge na okukala gAanamibia," osho a popi ngaaka.

Okwa li a gwedha po kutya omahangano gomoNamibia ngoka ge li moshikondo shomatungo nago onkene taga ka kala ge na mo oshitolwa motendela ya tumbulwa pombanda notaga ka kala lela ga mona mo omauwanwa.

Monakuziwa onzokundaneki ndjika oya li ya lopota kutya omahangano gAachina ngoka haga pewa ootendela dhokutungo oopate ga longele pamwe nomahangano gomoshilongo, olundji ohaga ka thiga omahangano gomoshilongo mofogo.

Dhokutya ehangano lyo-RA ohali kala olundju tali thindile omahangano gomoshilongo konankondongolo nokukala owala tali gandja ootendela komahango gopondje yoshilongo, Lutombi okwa popi kutya ndhoka odha nakalindi.

"Uuna pu na euvathanotsokumwe nomahangano [taga yambidhidha mofuto yotendela], o-Roads Authority aluhe oyi na okukala yi iyutha komilandu nokoopango dhehangano ndyoka tali kwathele mokufuta - unene tuu ngele otashi ya komulandu ngoka kutya ompito [yokupewa okontalaka yontumba] nayi egulukile nomahangano gokiilongo yopondje,"

osho a popi ngaaka. Lutombi okwa popi kutya RA aluhe ohayi shilipaleke kutya uuna otendela ya gandjwa kehangano lyopondje yoshilongo, omahangano gopevi meni lyoshilongo oga pewa mo oshitopolwa moprojeka ndjoka.

"Moprojeka ndjika, okontalaka oyoomiliyona N\$530, ashike oopelesenda dhi li po-20, ndhoka dhi thike poomiliyona N\$120, oshitopolwa nenge oshipambu shoka tashi ka pewa omahangano gomoshilongo," osho a popi ngaaka.

Ndjoka hayo ashike okontalaka onene yotango tayi ka kala yapewa ehangano lyoko-Beijing shaChina. MuJuni numvo onzokundaneki ndjika oya li ya kundaneke kutya epangelo lyaChina okwa li lya gandja omusholondondo gomadhina gomahangano ga pamba epangelo lyawo kepangelo lyaNamibia, opo ku vule okutothwa mo ehangano ndyoka tali ka pewa oshinakugwanithwa shotendela yokutungo nokunenepeka okapale kopaigwana ka-Hosea Kutako International Airport, koshimaliwa shoobilyona dhi li po-N\$3,5. Oonzokundaneki pethimbo ndyoka okwa li dha popi kutya omukalelipo gwaChina moNamibia Zhang Yiming okwa li a ningi iigongi naanambelewa aakuluntu mepangelo kombinga yetulo miilonga lyokontalaka ndjoka yokutanununa okapale hoka koondhila.

Sho a li a pulwa kombinga yokontalaka ndjoka muJuni numvo, minista gwIimaliwa Iipumbu Shiimi okwa li a yanda omapulo.

Okwa li a popi kutya uuyeleele mboka wokutya epangelo lyaChina okwa li lya gandja epopilo lyomahangano ngoka taga vulu okupewa otendela ndjoka, ke wu shi. "Uuyeleele wu li ngaaka mombelewa yandje natango inawu thika mo," osho a li a yamukula ngaaka.



Conrad Lutombi

CALL FOR PUBLIC PARTICIPATION FOR A COMMUNITY MEETING AT OPUWO

Notice is herewith given to interested and affected parties that application will be made to the Environmental Commissioner in terms of the Environmental Management Act 2007 (Act 7 of 2007) and the EIA Regulations (GN No. 30 of 6 February 2012 for the following:

OPUWO COMMUNITY MEETING: ON 3 DECEMBER 2020

Venue: Orutjandja Etati;
Time: 10:00;
Proponent: Development Workshop of Namibia;
Project Location: Portoin B of the Remainder of Farm Opuwo Townlands No. 1115 & on Portion Y of the Remainder of Opuwo Townlands No. 876.
Project: Opuwo Township Establishment.

Registration as Interested and Affected Parties: I&APs are invited to register to receive the background information document and/or submit their written comments/questions/concerns before 11 December 2020 Heidri Nel at:

email: heidri@udanam.com
and Tresa Amwaalwa at
email: tresia@udanam.com
Fax: 061 240 309, or
Phone: 061 240 300



CALL FOR PUBLIC PARTICIPATION FOR A COMMUNITY MEETING AT KEETMANSHOOP

Notice is herewith given to interested and affected parties that application will be made to the Environmental Commissioner in terms of the Environmental Management Act 2007 (Act 7 of 2007) and the EIA Regulations (GN No. 30 of 6 February 2012 for the following:

KEETMANSHOOP COMMUNITY MEETING: ON 3 DECEMBER 2020

Venue: Erf 2972, Tseiblaagte, Extension 6;
Time: 18:00;
Proponent: Development Workshop of Namibia;
Project Location: Keetmanshoop on Portion A of the Remainder of Keetmanshoop Town and Townlands No.150;
Project: Establishment of Brukharos Proper.

Registration as Interested and Affected Parties: I&APs are invited to register to receive the background information document and/or submit their written comments/questions/concerns before 11 December 2020 Heidri Nel at:

email: heidri@udanam.com
and Allison Anderson at
email: allison@udanam.com
Fax: 061 240 309, or
Phone: 061 240 300



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Fax: (061) 220584

Email: classifieds@nepc.com.na

Auction	Auction	Notice	Notice	Notice	Notice	Notice
Auto - Goods	Auto - Goods	Legal Notice	Legal Notices	Legal Notices	Legal Notices	Legal Notices

ONLINE AUCTION

EAGLE STEEL WORKS CLOSING DOWN AUCTION 3 - 8 DECEMBER 2020
 WEBSITE: www.aucor.auction
 Duly instructed by the client, Aucor Namibia (Pty) Ltd. will sell the following by Online Auction

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 PUNCHES, SPEEDFRAMES, FILES
 STEEL DRILLS, SDS DRILLS
 HANDHELD & POWER TOOLS
 HAND TOOLS, SAWS, LADDERS

#MOVEABLES
 EQUIPMENT:
 WELDING MACHINES, INVERTERS
 MIG MACHINES, TIG MACHINES,
 PETROL WELDERS, PIPE BENDERS
 CUT-OFF MACHINES,
 CUTTING TORCH, PUNCH MACHINE
 CONCRETE DRILLING MACHINE
 CONCRETE MIXER, GENERATORS

OFFICE FURNITURE AND MANY MANY MORE!
Registration & Bidding on: www.aucor.auction
Online Bidding: Starts Thursday 3 December 2020 @ 10:00
Ends Tuesday 8 December 2020 @ 13:00
 Viewing: 1 - 4 December 2020 @ 9am - 4pm. Eagle Steel Works,
 Joule Street 11, Southern Industrial, Windhoek.
 COVID -19 NOTE: Lockdown restrictions apply. T&C Apply. Buyer's
 Premium will be charged. Details subject to change without prior notice.

CONTACT US AT:
WINDHOEK: TEL: +264 61 257 945/6
EMAIL: info@aucornamibia.com www.aucornamibia.com

REZONING NOTICE

Take notice that Nghivelwa Planning Consultants (Town and Regional Planners) on behalf of the owners, intends to apply to the Oshakati Town Council for the:

- Rezoning of Erf 100, Oshakati Proper from "Single Residential" to "General Residential" with a density of 1:100;
- Consent to commence construction of flats while the rezoning is being formally processed.

Erf 100 is located in Oshakati Proper and measures 936m² in extent. The erf is currently zoned for "Single Residential" purposes.

It is the intention of the owners to rezone Erf 100, Oshakati Proper from "Single Residential" to "General Residential" with a density of 1:100. The proposed rezoning will enable the owner to construct flats on the property; therefore, they are not expected to have any negative impacts to the surrounding area nor the urban character.

Should this application be successful, the number of vehicles for which parking must be provided on-site will be in accordance with the Oshakati Town Planning Scheme.

Further take notice that the plan of the erf lies for inspection on the town planning notice board of the Oshakati Town Council: 1st floor, Civic Center, Sam Nujoma Road, Oshakati and applicant: Suite 4, Paragon Office Suites, Garten Street, Windhoek.

Further take notice that any person objecting to the proposed use of the land as set out above may lodge such objection together with the grounds thereof, with the Town Council and with the applicant in writing within 14 days of the last publication of this notice.

The last date for any objection is: **10 December 2020**

Dated at Oshakati this 19th day of November 2020.

Applicant: Nghivelwa Planning Consultants P O Box 40900, Ausspannplatz
Web: www.nghivelwa.com.na
Email: planning@nghivelwa.com.na
Tel: 061 269 697 Cell: 085 3232 230

CALL FOR PUBLIC PARTICIPATION FOR A COMMUNITY MEETING AT OPUWO

Notice is herewith given to interested and affected parties that application will be made to the Environmental Commissioner in terms of the Environmental Management Act 2007 (Act 7 of 2007) and the EIA Regulations (GN No. 30 of 6 February 2012) for the following:

OPUWO COMMUNITY MEETING: ON 3 DECEMBER 2020

Venue: Opuwo, Orutjandja, Etati
 Time: 10:00
 Proponent: Development Workshop of Namibia;

Project Location: Portion B of the Remainder of Farm Opuwo Townlands No. 1115 & on Portion Y of the Remainder of Opuwo Townlands No. 876.
Project: Opuwo Township Establishment.

Registration as Interested and Affected Parties: I&AP's are invited to register to receive the background information document and/or submit their written comments/questions/concerns before **11 December 2020** Heidi Nel at:

Email: heidri@udanam.com and Tresia Amwaalwa at tresia@udanam.com
Fax: 061 240 309, or Phone: 061 240 300


REPUBLIC OF NAMIBIA MINISTRY OF TRADE & INDUSTRY LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998 (regulations 14, 26 & 33)

Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region: ZAMBEZI

- Name and postal address of applicant: **TINTO INVESTMENTS CC, P O BOX 72318, NGWENZE**
- Name of business or proposed Business to which applicant relates: **TINTO BAR**
- Address/Location of premises to which Application relates: **LISIKILI AREA, MUKUNGU VILLAGE, KABBE NORTH CONSTITUENCY**
- Nature and details of application: **BAR SPECIAL LIQUOR LICENSE**
- Clerk of the court with whom Application will be lodged: **KATIMA MULILO MAGISTRATE**
- Date on which application will be Lodged: **11 NOVEMBER 2020**
- Date of meeting of Committee at which application will be heard: **09 DECEMBER 2020**

Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

Employment
 Offered


 The Cheetah Conservation Fund (CCF) has two positions available. Salary and benefits would be negotiated. The full position descriptions and necessary qualifications may be found at <http://cheetah.org/jobs-in-namibia/>.

Veterinarian Assistant Director for Ecological Research

If you meet the qualifications for a position and wish to apply, forward a .pdf of your CV and a letter explaining your interest to jobs@ccfnamibia.org Both positions require university degrees, computer literacy, and fluency in English. Email applications only: phone/fax/mail applications will be ignored.

Closing dates: 4 December 2020

Employment
 Offered

QUANTITY SURVEYORS WANTED

Job Post: Assistant Quantity Surveyor
 With 10 Years post qualification experience, knowledge of WINQS and Microsoft Project.

Email CV to: zpiafrica2@gmail.com

Employment
 Offered

Vacancy at Foerderkreis FaireKITA in cooperation with Sustainable House Foundation

Position: Executive Project Manager for Sustainable Development

Minimum requirements:

- Masters in Sustainable Development Cooperation or equivalent
- Proven working experience of 10 years in sustainable management of NGOs
- At least 5 years working experience in a senior role of sustainable development in NGOs of early childhood education
- Fluent in written and spoken English and German is essential
- Ability to coordinate and manage the partnership between Foerderkis FaireKITA and Sustainable House Foundation
- Experience in managing international stakeholders to acquire funding in Namibia and Germany
- Practical knowledge and understanding in Monitoring and Evaluation of projects in education for sustainable development
- Knowledge of the major evaluation methodologies (e.g. qualitative, quantitative, mixed-method, and impact) and data collection and analysis methodologies
- Working experience in establishing NGOs, recruitment of staff and designing volunteer strategies
- Creating networks and partnerships between kindergartens in Namibia and stakeholders in Germany
- Ability to write reports and strategies in English and German
- Computer literacy in MS Office, Adobe Illustrator
- Code B driver's license

Email motivational letter, certified copy of passport, CV with references and educational transcript to: contact@thesustainablehouse.org.

Application deadline: 21 November 2020.

CALL FOR PUBLIC PARTICIPATION FOR A COMMUNITY MEETING AT KEETMANSHOOP

Notice is herewith given to interested and affected parties that application will be made to the Environmental Commissioner in terms of the Environmental Management Act 2007 (Act 7 of 2007) and the EIA Regulations (GN No. 30 of 6 February 2012) for the following:

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Project Location: Keetmanshoop on Portion A of the Remainder of Keetmanshoop Town and Townlands No.150;
Project: Establishment of Brukharos Proper.

Registration as Interested and Affected Parties: I&AP's are invited to register to receive the background information document and/or submit their written comments/questions/concerns before **11 December 2020**

Heidi Nel at:
Email: heidri@udanam.com and Allison Anderson at allison@udanam.com
Fax: 061 240 309, or Phone: 061 240 300

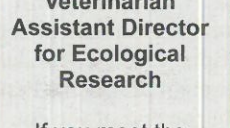
REPUBLIC OF NAMIBIA MINISTRY OF TRADE & INDUSTRY LIQUOR ACT, 1998 NOTICE OF APPLICATION TO A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1998 (regulations 14, 26 & 33)

Notice is given that an application in terms of the Liquor Act, 1998, particulars of which appear below, will be made to the Regional Liquor Licensing Committee, Region: ZAMBEZI

- Name and postal address of applicant: **LISWANI ELIZABETH NAMBILE, P O BOX 1226, NGWENZE**
- Name of business or proposed Business to which applicant relates: **HIDEOUT SHEBEEN**
- Address/Location of premises to which Application relates: **KASIKIA AREA**
- Nature and details of application: **SHEBEEN LIQUOR LICENSE**
- Clerk of the court with whom Application will be lodged: **KATIMA MULILO MAGISTRATE**
- Date on which application will be Lodged: **26 NOVEMBER 2020**
- Date of meeting of Committee at which application will be heard: **08 DECEMBER 2020**

Any objection or written submission in terms of section 28 of the Act in relation to the applicant must be sent or delivered to the Secretary of the Committee to reach the Secretary not less than 21 days before the date of the meeting of the Committee at which the application will be heard.

Education
 In Take


NAMTVET COLLEGE
 2021 STUDY OPPORTUNITIES
 Registered as a non-profit organisation
 To be No. 1 in TVET Training
 STUDY OPPORTUNITIES
 NATIONAL COURSES (NTA) NQF LEVEL 1

- Solar Equipment Installation & Maintenance.
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Possible grants offered
 T&Cs Apply
 Day, Evening & Weekend Classes

SMS/CELL 0812931140 / SMS ONLY 0811481404/
 Email: info@namvetcollege.com or danny@mweb.com.na
 Website: www.namvetcollege.com

Education
 In Take


2020 SCHOOL ENROLMENT IN PROGRESS.....

GEMS FIELD PRIVATE SCHOOL in Omusheshe-Ongwediva is still enrolling learners for **pre-primary and Grade 1 up to 3** for the **year 2021**. Private boarding facilities available and it is home away from home for your child.

For more details kindly please contact: Monica +26481 3433 867 or +26481 263 5221 or simply visit the school website: www.gemsfield.net

If interested, please download the application form, complete it and email it before 15/12/2020 to: hezmonduru@yahoo.com.

CEGEOR

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

INVITATION TO COMMENT / PARTICIPATION

Rodger Kauta; Mining Claims- 72194, 72195, 72196, 72197 & 72198 in Gobabis District Omaheke Region

CENTRE FOR GEOSCIENCES RESEARCH cc has been appointed to undertake an Environmental Impact Assessment (EIA) in accordance with the Namibian Environmental Management Act (2007) and it Regulations (2012).

Rodger Kauta; Mining Claims- 72194, 72195, 72196, 72197 & 72198 in Gobabis District Omaheke Region is proposing to undertake mining of zeolite group of mineral (Sepiolite).

The mining is being undertaken in line with the mining programme that has been submitted to the Ministry of Mines and Energy in the application for award of the mining claims. Interested and affected parties are encouraged to register via email in order to receive the Background Information Document (BID) to the email below within a period of fourteen days from the date of advert to the email below, and information on a possible arrangement for a Public meeting.

All comments and concerns should be submitted to **CENTRE FOR GEOSCIENCES RESEARCH**. Please contact:

Mr Mulife Siyambango
CENTRE FOR GEOSCIENCES RESEARCH cc
 P.O. Box 31423 Pioneerspark
 Windhoek, Namibia. 128A Bach Street
 Tel: 061-307 157/ Cell: 0856419511
 Email: cegeornam@gmail.com

Education
 In Take

2020 SCHOOL ENROLMENT IN PROGRESS.....

GEMS FIELD PRIVATE SCHOOL in Omusheshe-Ongwediva is still enrolling learners for **pre-primary and Grade 1 up to 3** for the **year 2021**. Private boarding facilities available and it is home away from home for your child.

For more details kindly please contact: Monica +26481 3433 867 or +26481 263 5221 or simply visit the school website: www.gemsfield.net

If interested, please download the application form, complete it and email it before 15/12/2020 to: hezmonduru@yahoo.com.

APPENDIX C.2

BACKGROUND INFORMATION DOCUMENT

TOWNSHIPS ESTABLISHMENT AT OPUWO WITHIN THE KUNENE REGION

ENVIRONMENTAL ASSESSMENT (EA)

BACKGROUND INFORMATION DOCUMENT (BID)

November 2020

1. INTRODUCTION

The Development Workshop of Namibia, in partnership with the Opuwo Town Council and Urban Dynamics, are, planning for two new residential extensions within Opuwo.

The purpose here is to incrementally eliminate the lack of formal housing due to the shortage of serviced land, and in doing so, help spearhead the President's campaign in eliminating existing shacks in Namibia. By implementing this project and stimulating development on a regional level, a delay of the high levels of migration to other urban centres such as Ruacana, Okahao, Kamanjab and Outapi is expected; where pressure on municipal services and urban land is of the same magnitude or even higher. Thus, giving the immediate environment a chance to recover in the already congested areas.

Table of Content

1. Introduction
2. How the EIA Process Works
3. Description of the proposed Project
4. Anticipated Benefits and Impacts
5. How to become involved

2. THE EA PROCESS

In terms of the provisions of the Environmental Management Act, the environmental practitioner is required to manage the assessment of the potential social and environmental impacts, conclude the application process and ensure that the general public, the interested and affected parties are afforded the opportunity to comment on the proposed intervention. In order to fulfil these requirements, this Environmental Assessment preparation process includes the preparation of a database of possible interested and affected parties, the invitation to register as stakeholders, keeping of an issue and response register, and circulating all draft and final documents to registered stakeholders.

Through this document, we aim to keep the stakeholders posted about the progression of the project and afford them the opportunity to further engage and share their comments, issues and concerns with the Environmental Assessment team. This Background Information Document (BID) is, therefore, also an invitation to all potentially interested and affected parties to register as stakeholders. By doing so, they will receive the documentation related to the Environmental Assessment draft as well as the final Environmental Assessment and Environmental Management Plan.

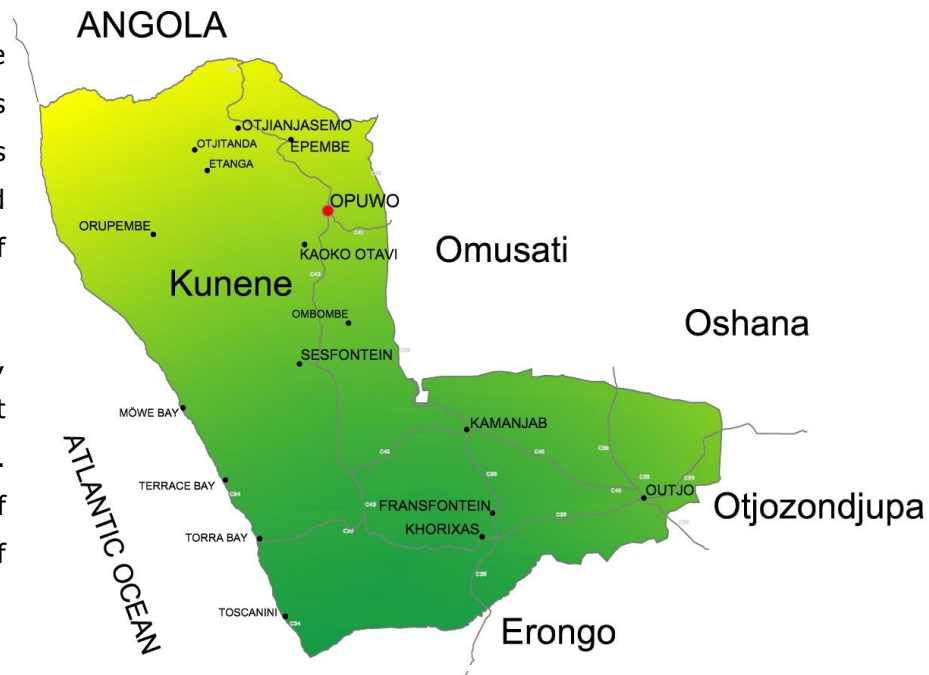
3. PROJECT DESCRIPTION

Figure 1. The locality Opuwo within the Region

PROJECT RATIONALE

Opuwo is the administrative capital of the Kunene Region, and the town accommodates the majority of the line ministries. This encourages the settlement of employees and increases the buying power in the town of Opuwo.

Being the largest service centre of the Region, Opuwo attracts a number of employment seeking residents from the region and beyond. The demand for employment exceeds that of the provision thereof depending on the type of employment sought.



This increases the town's unemployment rate and its ultra low-income residents. This results in informal settlements being created without any formal services, and therefore not conducive to reside in. When townships are planned, not enough consideration is given to the ultra low-income residents of the town. It is for this reason, DWN intends to provide an opportunity for ultra low-income residents also to obtain security of tenure.

The proposed development intends to, facilitate an adequate supply of residential properties, to serve the town's ultra low-income residents and to have service infrastructure installed. This creates a conducive environment for the residents to live in.

LAY OF THE LAND

The development sites are located at - 18.048023 S, 13.860819 E at Opuwo within the Kunene Region.

The project is situated on Porion B of the Remainder of Farm Opuwo No. 1115 and Portion Y of the Remainder of Opuwo Townlands No. 876.

Portion A is approximately 4.01 ha in extend, and Portion Y is approximate 41.63 ha in extend.

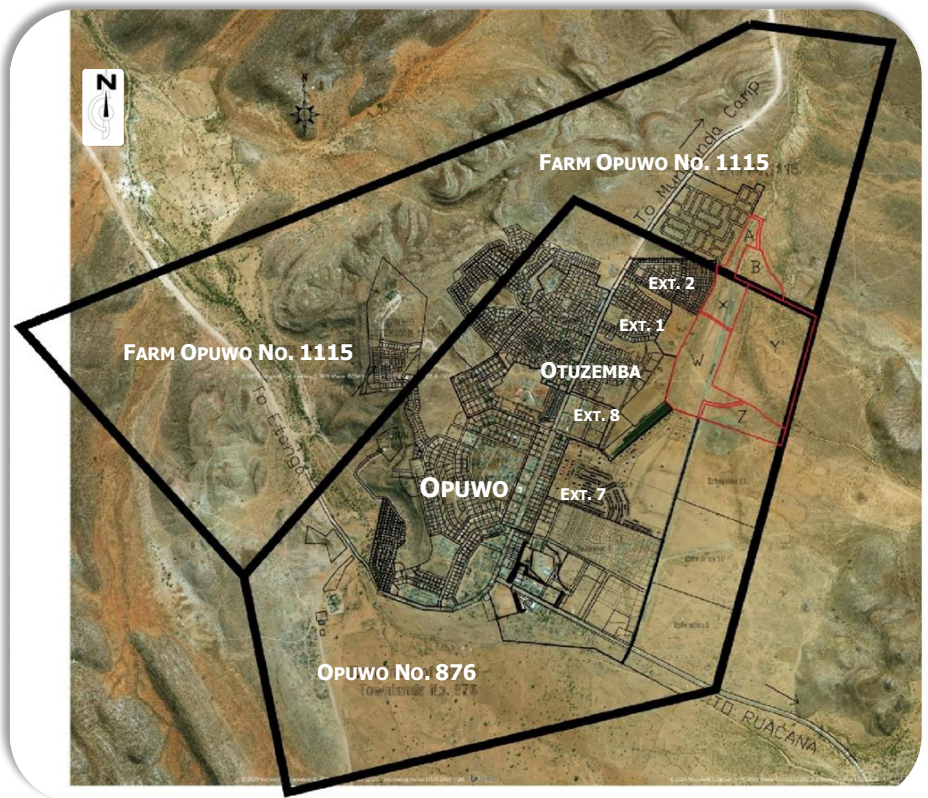
CURRENT LAND USE

The proposed development sites are currently zoned "Undetermined". Portion B is vacant, and Portion Y's site has four temporary scattered structure and twenty mahangu fields.

WHAT ARE THE PLANNING OBJECTIVES?

- ❖ To provide for formal housing within Opuwo, the Kunene Region and Namibia,
- ❖ To boost the Kunene Region's economy, in turn increasing the economy of Namibia as a whole;
- ❖ To create a new source of long term capital for the town council which in turn will be an opportunity to speed up development in Namibia;
- ❖ To improve the livelihood of Opuwo's citizens as well as create job opportunities; and
- ❖ To efficiently use underdeveloped land.

Figure 1. The locality of the Portions within Opuwo

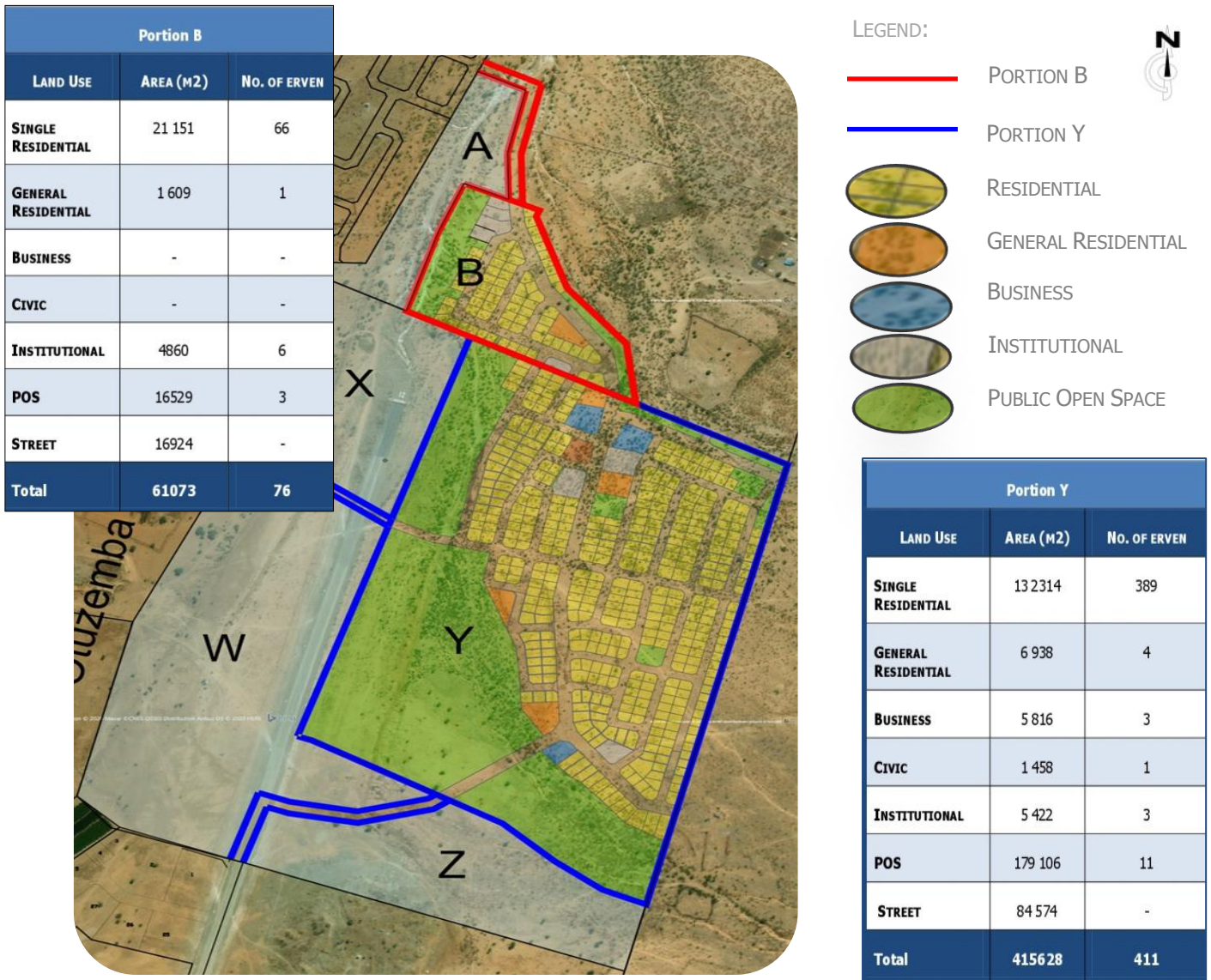


LAYOUT DETAIL

The layouts will alter the current zoning from undetermined to include Residential-, Institutional-, Business plots and Public Open Space. The block's shapes and sizes are illustrated in the figure below.

The tables below provide a summary of the detailed land-use allocation on the portions, while the mitigated detail of the layout is discussed afterwards.

Figure 2. Opuwo Layouts & Land Use Tables



4. ANTICIPATED BENEFITS AND IMPACTS

Some of the most important benefits of the project are the following:

- Ⓢ Provision of formal housing;
- Ⓢ Stimulation of economic development and creation of new development opportunities; and
- Ⓢ Employment creation during both the construction and operation phases of the project;

However, some environmental and social impacts can also occur and should be considered and evaluated. These include

- Ⓢ De-bushing of shrubs;
- Ⓢ Flood risk within parts of the area; and
- Ⓢ Relocation and compensation of Cultivated land;

This layout focuses on various land use policy approaches that result in more compact and accessible land development, which includes increased land use density (including commercial services in residential neighbourhoods, and diverse housing types), increased township accessibility and centrality, and increased road and path network connectivity. Another approach was that this layout was designed to be cost-effective, to make use of a sufficient amount of land and finally to leave room for flexibility for future development.

Its biggest asset, we believe, is its ability to empower people affordably. As stressed earlier, the layout also aims to reduce social class segregation and to restore the dignity of low-income people. May those who choose to live there be treated with dignity and may they prosper through their generations to come.

5. HOW TO BECOME INVOLVED

Public Participation is an important part of the EIA process because it allows the public to obtain information about the proposed project.

1. To become involved in this EIA, any interested or potentially affected party is herewith invited to register as a stakeholder of this project. This should be done by sending an e-mail with your detail to heidri@udanam.com.
2. Once registered, you will receive invitations to all public events related to the EIA. You will also receive digital copies of all draft reports and final reports produced as a result of this EIA.
3. You will be invited to comment on any event or any report related to the EIA.
4. You will be informed of the decision by MET as soon as it is received.



**URBAN
DYNAMICS**
town and regional planners

CONTACT US

Urban Dynamics Africa (Pty) Ltd welcomes any comments and correspondence about this project.

Contact us as follows:

Johann Opperman

Tel: (+26461) 240300

e-mail: johann@udanam.com

Tresia Amwaalwa

Tel: (+26481) 240300

e-mail: tresia@udanam.com

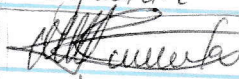

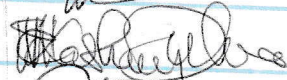




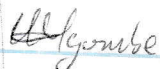

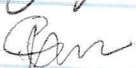
APPENDIX C.3

COPY OF THE STAKEHOLDERS LIST

Environmental Impact Assessment meeting

Opworo:

03rd December 2020

Name	Occupation	Signature
① ESTER VEIKO	Project Coordinator	
② Samantha Kuvare	Project Coordinator	
③ ERASMS KASHUMULWA		
④ Mr R. KARUI	TOWN Council	
⑤ Tresio Amwadhwa	UDA Planner	
⑥ Gija U. Semba	DWN Intern	
⑦ Kapupeperua H	Community member	K. Kapupeperua
⑧ Ujakari Ndjira	Community member	
⑨ Agust Mbuale	Community member	A. Mbuale
⑩ Nyambe Daniel	Community member	
⑪ Abel Tjingi	Community member	Abel
⑫ Aneli Tjingi	Community member	N/A
⑬ Kamangaambo	settler	
⑭ Shilongo G	Community member	
⑮ Shochumwa S	Community member	S. S
⑯ Gekemina Muhandula	Community Member	
⑰ Mbaombeka Mbapanda	Community Member	M. M.

Name	Occupation	Signature
Rijetavihe Humu	Community member	HH Humu
Jatoporua Hapulla	Community member	NA
Edward Mbomboro	Community M	HH
Daniel Mutijare	Community M	HH
Mbalemwa Juseterase	Community M	HH
Katuba Kavetotoka	Community Member	HH Eyt
Pokango Tjambora	Community M	NA
Donia Hapute	Community Member	HH
Kakatapa Tjumbora	Community Member	KJ
Mondura Handura	Community Member	HH

ANNEXURE C.4

COMMUNITY MEETING INFORMATION

Township Establishment in Opuwo Town

Opuwo Community meeting

Date: 03 December 2020

Venue: On the project site

Time: 14:00 hours

Agenda

1. Introduction of the hosts
2. Introduction of the project
3. Presentation
4. Questions/contributions
5. Conclusion

Meeting Minutes taken by Mr. Otja Semba

1. The team which consisted of representatives from DWN, UDA and the Opuwo Town council was introduced by Mr Karui from the town council. Mr. Karui was also the translator of the meeting in the local vernacular to ensure that all the participants understand and follow the presentation.
2. The project was introduced by Tresia Amwaalwa from Urban Dynamics, who indicated that DWN came up with an initiatives to fast track the delivery of affordable land to the ultra low income earners in different town in Namibia and finally got into an agreement with the Opuwo Town Council to initiate a similar project in the town. As a result of this agreement Urban Dynamics was tasked to design a layout on the site that we are on. as part of the approval process a community meeting must be held in order to inform the community of the project and obtain their views on social and environmental impacts that the project may have on the environment and the residents of Opuwo most specifically the residents living on site.
3. Tresia further provided a presentation based on the BID document that was distributed to the participants and the layout plan displayed. She indicated that the project site will provide 487 erven of which 455 are residential, 9 erven are for institutions such a crèche and churches, and 3 for small business establishments. She further stated that the sensitive areas especially land close to the river were left and preserved by accommodating these areas on public open space zoned erven. She explained that these areas are not to be developed for housing or any other purposes rather than to preserve the natural environment and allow space for recreational purposes. As a result of this type of developments and the fact that Urban Dynamics have carried out many of similar project, Tresia indicated that there are

impacts that are expected to occur at different stages of the project development. Some of the impacts include, de-bushing of shrubs, flood risks within some parts of the site. She further mentioned that there are not only impacts expected from the project there are several benefits that the project will bring forward, she mentioned before that the benefits for this project is the provision of formal housing, stimulation Opuwo town's economic, and job opportunities during different stages of development.

4. Tresia concluded her presentation by saying that usually the people residing on site or in close proximity to the site know more about the site that can assist in the development process of the site. Therefore, she asked the community members to indicate possible social and environmental impacts that the community believe will result if this project is to be implemented.
5. The following are questions asked by participants and responses given during the meeting.
 - **Who can apply or land within the project area?** *Everyone can qualify, however a formal application must be submitted to the town council.*
 - **Can the neighbouring settlement tap into the bulk infrastructure to be constructed in the new project site?** *It is up to the town council to approve the connection to neighbouring settlements, and mostly connections are done to planned areas and no illegal connections will be expected.*
 - **What happens to the existing residents on the site that settled in that area before this project?** *Most of the existing structures are accommodated on the during the layout plan. They will have to register with the town council in order to be formally allocated an erf. Residents were also reminded the people that are currently residing on site have been mapped and are know, therefore, if there is anyone that is planning to establish a structure on site in order to benefit from this project will not be considered or compensated.*
 - **Is the project solely for low income earners or other income groups also welcome to apply?** *The project is for low income residents even though other income groups can also apply, priority will be given to low income earners.*
 - **What is the time frame to complete this project and why is town council giving more priority to this project?** *DWN's main objective is to deliver erven in the shortest possible time and thus, as the implementation agency they wish to have erven ready for beneficiaries as soon as possible. As a result of all the different institutions that form part of this project implementation the project can be finalised in the next two years, depending on progress from all other institutions.*
 - One community member requested that the inhabitants be given a priority in the proposed project.

- Another community member also requested the Opuwo Town council to work together with the community in order to combat the land grabbing and encroachments in the area for a more efficient process.
6. In conclusion, Tresia asked, the community members if there is anything else that need to be relooked at be it with the layout or establishment process, as well as if there is anything related to the community or the environment that is important for this project. No responses were received community members gave a go ahead with the project. as a result the meeting was adjourned at 16:35.

ANNEXURE D

MEETING MINUTES

Minutes of NITRP meeting held with Environmental Commissioner: 23 July 2012

Attendances: Mr Theo Nghitila - Environmental Commissioner - MET
Dr Freddy Sikabongo - MET
Mr Pieter Genis - MRLGHRD
Mrs Petrine Moongela - City of Windhoek
Mr Ernst Simon - Urban Dynamics Africa
Mr Edwin Thornley - President of NITRP

The meeting commenced at 14:15 at the board room of the Ministry of Environment and Tourism

The meeting was opened by the Environmental Commissioner, Mr. Theo Nghitila by welcoming all attendants. He started by acknowledging that there are currently many problems experienced with the List of Activities and Regulations within the Environmental Management Act. He indicated that his door is open for discussions and constructive criticism if acceptable solutions could be found. He stated that the Environmental Management Act was not meant to stop or to delay development, but to guide development to be done in a sustainable manner within the natural environment. Implementation of the Act would be a learning process and MET does not want to have a negative perception from stakeholders.

The floor was handed over to Mr Ernst Simon.

Mr Simon thanked the Commissioner for his opening statement and indicated his appreciation towards the positive approach MET has taken with regard to the concerns of stakeholders. He indicated that the meeting was arranged under the auspices of the Namibian Institute of Town and Regional Planners and introduced each person attending the meeting. Mr. Simon was asked by the NITRP to facilitate the meeting. Mr Edwin Thornley is current President of the NITRP, Mr Pieter Genis represented the Ministry of Regional and Local Government Housing and Rural Development, and Mrs. Petrine Moongela represented the City of Windhoek and is also a member of the NITRP Board.

He indicated that the Town and Regional Planning Profession has experience in the Law making exercise and that the Profession understands the predicament currently being faced by MET as far as regulations are concerned. One can never expect to get Regulations one hundred percent right the first time and it is always a process of seeing how it works in practice, identifying shortcomings and then amending it to make it work effectively with all the stakeholders involved.

He categorically stated that the Town Planning Profession fully supports the Environmental Management Act as well as the concept of Sustainable Development and everything that the Environmental Management Act stands for. However, as pointed out by the Commissioner, the Profession has certain immediate problems with the List of Activities in the Regulations. Since the Commissioner has been on NAMPAB before he knows exactly how the process works with planning proposals and how cumbersome the process is. With the addition of the provisions of the Environmental Act, this process could now become even longer and time consuming with the resultant effect of delaying development.

He also indicated that he would like to discuss the impacts of the Listed of Activities and some aspects of the Regulations as far as Town and Regional Planning processes are concerned. He added that he wanted to share the problems experienced to give the Commissioner an idea of the problems the profession are dealing with and to see if some solutions could be found. A presentation to this effect was prepared, but it was understood that it would not be necessary to deal with all the detail at this stage.

Mr Simon indicated that he would like to discuss the process for obtaining a Clearance Certificate to confirm that the process is understood correctly. He also indicated that the Commissioner already had a clear understanding of the problems the Profession is facing with the Listed Activities and that he would not go into

detail regarding each listed activity. Perhaps the most important thing is to explore solutions and map the way forward in terms of the provisions of the Act and especially the regulations.

He presented a diagram showing the process for obtaining a Clearance Certificate which was extracted from the Guidelines prepared in 2008 after the promulgation of the Act. It is understood that a person who would want to have an Environmental Clearance Certificate would apply to the Environmental Commissioner for an such clearance certificate. The Commissioner would then screen the application and decide whether a scoping or full assessment would be required or not.

However, a problem which needed to be discussed was that the process within the Regulations has changed compared to what was indicated in the Guidelines. The Regulations indicated that a scoping report is now required as part of the application and must be submitted before the Commissioner takes a decision.

For example where an application was to be submitted for a rezoning from Residential to Office, a full scoping report would have to be compiled and submitted to MET for screening after which a decision would be made on whether a clearance can be issued or if a full environmental assessment would be required. This was a concern for him as he indicated that a normal rezoning from "Single Residential" to "Office" or "Business" would potentially have no environmental impact at all. It was not clear why a full scoping process would have to be followed for such an application. He indicated that through a planning or screening report it would be possible to assess and determine whether it would be necessary to conduct a scoping or EIA assessment.

He asked the Commissioner to confirm whether the abovementioned process as indicated in the Regulations was understood correctly by him.

The Commissioner responded by confirming that Mr Simon understood the process correctly and that the process as outlined in the Regulations will be the process applying in practical terms. An applicant or proponent intending to obtain a Clearance Certificate must first do a full scoping before the Commissioner will make a decision on whether a full EIA is required or not. He further indicated that this process would be the norm for large scaled activities which would normally have a significant impact on the environment. The activities as referred to by Mr Simon were regarded as "*small works*" by the Commissioner.

He indicated that there are many activities which are similar to small scale rezonings inclusive of small agricultural activities or projects which are already occurring within existing urban areas or mahango fields. The processes for these activities are straight forward. The process of developing the Regulations was done in such a manner as to allow for a competent authority to be established. In a process which concerns agriculture, it would be contradictory to clear an activity by MET if the Ministry of Agriculture does not support that activity. For small scale activities such a rezoning within an existing build environment which has no environmental impact, it would be an administrative nightmare to deal with all the rezoning applications.

He further indicated that MET would not merely leave the decision of such applications in the hands of Municipalities. He indicated that he advised the City of Windhoek to apply for exemption to some of the listed activities. MET would then consider giving exemption to those activities which will have no environmental impact. However, a rezoning to Industrial would be regarded as a different story and would not be exempted easily. All Local Authorities will have to apply to the Commissioner's office to receive an exemption of not more than three years for certain listed activities. However, certain conditions will be attached to these exemptions to which Local Authorities will have to comply.

He indicated that MET will implement the Act and will not move backwards in the process by trying to avoid making mistakes. They are currently in the process of designing a strategy to disseminate and to implement the Act and to exclude minor activities which do not require a full EIA. This will be achieved through consultative workshops and meetings within MET which will be followed by a Road Show where the implications of the Act will be explained to Line Ministries, Municipalities, Local and Regional Authorities. This strategy should address many concerns which were already presented at the meeting.

Activities such as waste management and disposal sites will require a mandatory EIA process and will not be exempted from the list of activities. Rezoning from residential to industrial will have certain conditions since

the scale of the activity will play a role. If a land owner living in Katutura with a large erf wants to develop industrial activities on that property and the City of Windhoek approves the rezoning then it will reflect negatively on the Commissioner. So a Municipality or Local and Regional Authority will have to apply to the Commissioner for exemption for these types of activities. However, rezoning from residential to office or business will be dealt directly by the Local Authority if exemption is obtained from MET.

Mr Simon suggested that rezoning to "commercial" could be completely removed from the list of activities.

The Commissioner responded that it might be possible to remove it, but the Ministry opted to have it included, but exemption could just be given. The Municipality would then handle it within their own area of jurisdiction. There should be different categories.

Mr Simon indicated his appreciation to the Commissioner and added that the fact that there are no categorisations in terms of Clause 56 (1) (d1) of the Act is one of the key problems. Although these activities are listed, for example a hotel, some erven within the CBD is already zoned for many years to accommodate a hotel like the Hilton Hotel. He added that he could not see why an Environmental Impact Assessment or even a Clearance Certificate would be required if a person wants to construct a hotel on a property which already makes provision for it. However, he indicated that should a lodge be constructed within the Groot Berg then it would be a completely different situation.

The Commissioner agreed that it would be a different situation. He further indicated that one cannot expect every detail to be included into the Environmental Management Act. If the situation is already within a build environment obviously it would be different. He indicated that most of us have done and understand that an EIA is a process administered by people which is dependent on the consultation with every party involved. So the Act would not include every detail. When it comes to the construction of a hotel, the screening process will indicate the location. An application would be registered at MET with an application form which should indicate the exact position or location of the hotel. If it is situated within the middle of a town then there would be no need for an EIA. However, if a land owner intends to demolish his house to build a hotel then the Municipality needs to be happy with that first.

Mr Simon added that the pressure on MET would also be high. If one considers the number of rezoning occurring each day in Windhoek alone, MET would probably receive three applications a day. It would flood the system to such an extent that the office of the Commissioner would hardly be able to keep their heads above water.

The commissioner indicated that is exactly why the exemption will be granted, which is not an unusual thing. In this case there will be exemption of three years for those activities. It will be up to a Municipality, Local or Regional Authority to have a valid exemption from these activities. He acknowledged that they have a lot of explanation to do and at the moment they are preparing their information material with regard to explaining how this Legislation and Regulations will be applied.

Mr Simon commented on the issue of making Regulations by indicating that there is also a provision in the Act that any person may make representation to the Minister as to what should be added or removed from the list together with the rationale behind such proposals. From the Town Planning Profession a real option would be to look at some of these regulations, motivate it thoroughly, and make a presentation to the Commissioner to the amendment of the Regulations.

He indicated that he would not discuss specific activities in the list, because one would have to sit and talk about it specifically for a long time. He then referred to two important issues. The first is the listing of "any construction or activities within a catchment area". He explained that it actually means that 'nothing' can happen without a clearance certificate, because every activity that occurs within Namibia, occurs within some or other catchment area. So by just looking at that sentence it encompasses every possible activity that happens within Namibia.

The Commissioner enquired whether there is any definition given of the catchment area?

Mr Simon responded by saying unfortunately not and that the lack of adequate definitions is one of the problems which needs to be dealt with separately.

The second issue is Township Establishment, which is not mentioned as a listed activity. He indicated that township establishment is perhaps one of the most important activities which need to be listed. He suggested that the Commissioner, in consultation with the planning profession, should possibly review the list of activities and regulations from a planning perspective to try and integrate the environmental requirements in a logical way into the whole planning process so that the two processes are actually coordinated properly as provided for in the Act. According to clause 11 of the regulations, the Minister of Environment and Tourism should, in writing, communicate with the competent authority (who in this case is the Ministry of Regional Local Government, Housing and Rural Development) to decide on how to deal with the different Acts so that they work efficiently with each other.

The Commissioner indicated his appreciation that these matters were mentioned. He further indicated that the current Legislation will bring many developments or activities to a hold. However, implementation of the Act will be a learning process and if an argument or proposal for an amendment is brought forward then MET will consider that the Act makes provision for it. If activities are listed which are not possible, such as catchment areas, then they will be extracted or amended to perfect the Legislation. The Act is there to regulate activities and for MET to facilitate the process of obtaining a Clearance Certificate. The doors of MET are still open for discussions since MET must implement the Legislation.

He referred to an example of pesticides or pest control which is one of the listed activities which does not indicate to what scale it should be implemented. He mentioned that if a person wishes to buy a pesticide for home or garden use then it would not be necessary to first obtain a clearance certificate. He also indicated that he would not expect people to apply for a clearance certificate for such a small scale activity.

Mr Simon referred to the issue of definitions and that many of the listed activities are not defined which makes it extremely difficult to interpret. He used an example that "Resettlement Scheme" is not defined. He further indicated that he spoke to Dr. Pieter Tarr and some people within the Environmental Profession. He stated that different people had different opinions about the meaning of a resettlement scheme.

He also referred to "Bulk Services" and asked what was intended when talking about bulk services? He indicated that "Commercial Zonings" is a zoning which does not exist within the Planning Legislations and that these references should be properly defined otherwise it would be impossible to interpret the Environmental Management Act, List of Activities or Regulations.

The Commissioner responded that the Environmental Management Act makes provision to work in conformity with other Laws. He indicated that when a "Resettlement Scheme" is defined in another Act, then the Environmental Management Act will assume the same definition. It was for this reason that one would not expect a definition for "Resettlement Scheme" within the Environmental Management Act.

He indicated that MET would be implementing the Act as it is and that they know that there are many amendments which would urgently need to be made. He added by saying that they "*are talking the same language*".

He once again indicated his appreciation for pointing out some of the obvious issues which needs urgent attention. He also indicated that his Ministry will not amend the Act, List of Activities or Regulations without first implementing them. When the Act was drafted, it exchanged many hands, and it is not simply a Law which was drafted by one person only. Some things are the way they should be and they should not be amended a month after it was Gazetted. The Act will be perfected to become one of the best Laws within the Environmental Sector and it will be reflective of what our situation is and what Namibians want.

He stated further that some issues were also removed from the Act such as the provision to regulate an Environmental Assessment Practitioner. It is a necessary issue which would be included later, but which would not be possible to implement at this moment. There are many examples which could be discussed such as "pesticides", but a lot of time would be wasted. When it comes to a scale such a Tandjies Koppe, then

obviously it would become applicable. MET will not allow them to get away with such a large scale activity, but for smaller scale activities we would not have a problem.

He added that the Regulations do not indicate to what scale "Charcoal Production" requires a Clearance Certificate. Many commercial farmers are fighting bush encroachment and many of them are benefitting from charcoal production. If those farmers require a clearance certificate, then MET will not deny them one if they have not done public consultation. MET will provide the clearance certificate provided that the Ministry of Agriculture issued a letter to MET allowing the activity. This is what is happening on the ground by implementing the Act and MET is dictated by reality and learning from the process.

Dr Sikabonga indicated that some of the smaller scoping and EIA processes were included in the List of Activities for the sake of public consultation. Before an activity takes place, the proponent should consult MET or certain affected parties on the proposed activity. An example was used for overhead electricity lines. Even though the distance may be short, the fact that it passes over an existing cemetery or grave yard becomes a problem for the community or residents. Another example is that in towns you would find some structures within catchment areas or river beds. When it rains the water will backup into the areas and cause more flooded areas. These are some of the areas where MET and the private sector should be conscious about.

Mr Simon indicated that he fully agreed with this statement and indicated that another problem exists for example "Flood Lines". He mentioned that the regulations only state "flood lines" without a proper definition. He also enquired what was meant with flood lines and whether it refers to a 5 year flood line, 10 years, 50 years or a 100 year flood line?

He indicated that it becomes impossible for Town and Regional Planners to work within the framework of a flood line if it is not defined properly as a guideline.

Mr Genis stated that the Profession is under tremendous pressure, in terms of the process of getting new Townships and rezonings approved within a reasonable time. The Minister of Regional and Local Government, Housing and Rural Development wants an application to be approved within 6 months. He further indicated that the Namibian Planning Advisory Board and Townships Board currently do not recommend applications for approval by the Minister of RLGHRD since they are bound by the new Regulations and List of Activities which first require a clearance certificate for certain activities.

He requested the advice from the Commissioner on behalf of the MRLGHRD in relation to the process which should be followed. How should Townships Board and NAMPAB deal with applications within the short term, before they come to the point where the regulations will be streamlined? He indicated that the current process takes about 2-3 years before it reaches a final decision and by referring an application back to the consultants to obtain a clearance would be another addition to the time frames.

Mr Simon added that a preparatory meeting was held during the morning with some Town and Regional Planning Consultants and, from a consultant's point of view, many projects such as Township Establishments has taken up to two years from the starting date. This involved community consultation, taking of aerial photography, base mapping, actual planning design, obtaining approval from the Local or Regional Authority and even NAMPAB. At the moment there are many applications within the final stage which was in process before the Regulations came into force. Those projects have all been approved by Local Authorities and Regional Councils. Many of these would have to go back to their Local Authorities requesting an EIA before they would be approved by NAMPAB or Townships Board. These Local Authorities would not have budgeted for an EIA process and it would take another 6 months in addition to what they already have. The Local Authorities are asking the Planning Profession what they should do.

The Commissioner responded by saying that he did not understand why Local Authorities should be worried about these projects, even going to the extent of referring to the costs, especially small municipalities. He indicated that if the process is already initiated and completed to the stage of seeking approval from NAMPAB or Townships Board, then there should not be a problem with it. He indicated that there is a provision in the Act which will exempt these projects as long as proper justification is provided for.

He suggested that the planning process could be done parallel to include a SEA on the plans which would be a cheaper exercise. A request should be submitted to the Minister or to the Commissioner for exemption to those projects which are already at an advanced stage. This should be done by writing a letter within the provisions of the Act and justifying the situation that these projects should be exempted.

Mr Simon responded by indicating that the Institute could write such a letter asking for exemption for everything that has already been approved by Local and Regional Councils before the Regulations came into effect.

The Commissioner agreed to this statement and indicated that it is the concern of the stakeholders which is a reality. The purpose of the Act is to protect the environment and if there is no significant impact on the environment then one cannot enforce something which is undue. The objectives of the Act are clear.

Mr Simon indicated that this statement was clear and thanked the Commissioner for his flexibility.

Dr Sikabonga added that MET currently experienced situations where most of the proponents would approach their office and demand a solution within an unreasonable timeframe.

Mr Simon agreed that it would be unfair to expect that from MET and suggested that the Commissioner should have a meeting with the Chairpersons of Townships Board and NAMPAB to explain the procedures and verify that certain activities and projects will be exempted. He added that both Townships Board and NAMPAB see themselves as the competent authority and they do not know what they are allowed to do or what they may allow or not. As a result both Boards just block applications by requesting clearance certificates to be obtained. He indicated that the Act refers to coordination between various Legislations and if some sort of agreement could be reached to allow applications to be approved which were ongoing before the Regulations came into effect. This would then allow for a fresh start and all new projects which started after the Regulations came into effect would be subject to the Scoping and EIA process.

The Commissioner indicated that they would only have to engage all relevant bodies of State. He also indicated that even though their mandate increased, the number of staff within his office remained the same even after the Act was Gazetted. He added that his office only interviewed the positions for the Deputy Commissioner and a senior Deputy Director which should be filled soon along with two other senior positions within the department. He requested that even though the stakeholders are not to blame they should at least be patient with the Ministry since they will coordinate the process as efficiently as possible. They will sit around one table to amend the Act to sort out any problems. He also stated that he welcomed constructive criticism which would help facilitate the process to enable the Act to ensure sustainable development within all the listed activities. The Ministry of Environment and Tourism would not block all development as many people tend to believe, but larger companies such as chemical factories will be regulated.

He stated that he is pleased to see how many companies and stakeholders are forthcoming towards the process. Especially within the Mining Sector which is more proactive and setting a good trend towards implementation of the Act and Regulations. The Act has also given people and residents within a city or town more rights to be heard on development intentions. MET has been flooded by many phone calls of people complaining which has become too much for his office to handle. Even this principle of "not in my back yard" has become a reality after being Gazetted. He indicated that their doors are open and they will act accordingly on the proposals to allow approval of applications at NAMPAB immediately so that they are not seen within the industry as delaying development or the process.

Mr Genis suggested that the Ministry of Regional and Local Government, Housing and Rural Development should write a letter to the Ministry of Environment and Tourism highlighting some of the issues discussed so that the two Ministries could come together with suggestions on how to deal with it.

The Commissioner agreed with Mr Genis to write the letter so that his office can see how they could expedite to the point as not to block or delay anything which have already been approved. If Oshikuku is already in the process of being proclaimed after all the approvals, then it should not suddenly be delayed because of this new Act. There should be a way around it as provided for within the Act.

He indicated that he received a similar request from the City of Windhoek in the form of a letter. The City of Windhoek had discussions with MET regarding certain exemptions and it was agreed to write a letter to MET to request such exemptions.

Mrs Moongela indicated that one of the main confusions came in when Townships Board and NAMPAB only heard about the Act and saw which activities could be allowed and which activities should require a clearance certificate. Without consulting any of the stakeholders, they just referred the applications back to first obtain a clearance certificate. She indicated that it might be due to a lack of communication and understanding amongst stakeholders which should be solved by writing a letter and highlighting the issues which would not require a clearance certificate, such as rezoning within the buildup environment.

The Commissioner responded by saying that rezoning will be exempted and this exemption would not be given to individuals but rather to Local Authorities who should be accountable for it. Implementation of the Act has identified many situations which were previously not known by many people. Where a small community of women received enough funding to start a small scale garden proposal, they suddenly required a clearance certificate because they intended to irrigate their fields. He indicated that his office could see that the garden was already located within their existing fields and they would not be using and chemicals so they received the go ahead. He indicated that it was only someone who interpreted the Act wrong. He also indicated that his office were identifying larger activities which had worse environmental impacts such as boats dumping waste within the rivers which was not acceptable and was dealt with strictly.

Mr Simon stated that he fully agreed with the Commissioner and suggested that the Regulations should also be thought through more thoroughly. He explained by saying that the Regulations required an Environmental Practitioner to be appointed within the process. Should a person living in Katutura intend to rezone his erf from residential to business, then he already had to pay the Planning fees involved in the process and now he would be expected to appoint an Environmental Practitioner to do the Scoping report as well. At the end the whole process would become unaffordable to the poorest people as was the case with the group of women who intended to start their little agriculture project. Small and insignificant projects should be judged on the basis of a simple application to the Environmental Commissioner who could then decide if a scoping study or EIA is required.

The Commissioner responded that the Municipality would have an exemption in that case and it would not be a problem. The person would be able to apply for his rezoning.

Mr Thornley requested clarification on which Local Authorities would be able to apply for exemption. Would it be only selected Municipalities and Local Authorities or would all Local Authorities within Namibia be able to apply for exemptions?

The Commissioner responded by saying that every Local Authority who applied to the Commissioner would be able to obtain exemption and that it would be their own responsibility to obtain such exemption. They should write a letter to MET to apply for it since it will not be issued automatically. Should they not apply for exemption, then they would be in serious trouble. He stated that it would be important for his office to reach out to each Local Authority and inform them of the situation. He added that the Act would require each Local Authority or Institution to employ an Environmental Officer whom would work closely with MET. This should ensure that the Act and Regulations would be implemented correctly and that everyone would know exactly what the Law requires.

He referred to an example which should be targeted by these officers such as the quarries or borrow pits from road construction which are visible along the road when driving to the North. He indicated that some of those borrow pits were poorly excavated and some became an eyesore while others became a danger for people and livestock. There are also cases where those borrow pits became dumping sites, which MET does not want. It would take a long time before MET would have a sufficient pollution and waste management system in place and as a result the Clause for registering dumping and waste management sites were included in the Act. This should at least assist MET to control the situation on the ground and manage our waste accordingly.

Mr Simon agreed to the statement and suggested that community consultation should also be implemented when it come to those borrow pits. He explained that previous Environmental Impact Assessments conducted for road construction projects revealed that many communities requested these borrow pits to remain behind since they become important sources for water and fish. He also added that there should be a compromise between the environmental and social aspects.

He summarized the discussions by commending the flexibility and preparedness of the Commissioner and MET to address the immediate problems experienced by the planners. He concluded that a meeting should be held with the Chairpersons of Townships Board and NAMPAB to clarify the requirements of the MET.. He also mentioned that small scale activities would be exempted by writing a letter to MET indicating which applications would be adequate to deal without a screening process to determine whether a Scoping or EIA would be required or not.

He suggested that the Institute should prepare a submission to the Commissioner on the main problems as well as suggest solutions to these problems. This would highlight the concerns and potential solutions as provided for in the Act. He indicated that the office of the Commissioner could deal with the letter as they see fit, but the potential solutions as suggested could be used by the Ministry in the process of fine tuning the regulations.

The Commissioner indicated that he would be happy to receive such a submission.

Mr Thornley added that all projects which have been already approved by Local Authorities prior to the enforcement of the List of Activities and Regulations should also be exempted in general.

Mr Simon agreed and indicated that it should be included under the exemption procedure. He enquired from the Commissioner whether the Institute, the MRLGHRD, Townships Board or NAMPAB should apply to MET for the exemptions of already approved projects?

The Commissioner responded by indicating that it should be from the Ministry of Regional and Local Government, Housing and Rural Development.

Mr Simon agreed to this statement.

The Commissioner indicated that should the MRLGHRD not agree to the proposals, then they would write a letter indicating that it would not be possible. He used an example that if the Ministry of Fisheries wrote a letter to MET which were in contradiction to what was allowed, then it would be difficult for MET to allow such an action. The same would apply to the MRLGHRD, if they were satisfied with the proposal then MET would accept it also. The Act bounds everyone to the process and should something go wrong then MET could still implement the Act to rectify it. He indicated that this should be dealt with as soon as possible in order to speed up the process and to avoid any further delays.

Mr Simon indicated that he agreed with the Commissioner and stated that the letters should reach the Commissioner as soon as possible.

The Commissioner enquired whether there were any other issues which needed to be discussed after which he thanked everyone attending the meeting for their time and effort. He indicated that the meeting was open and constructive and that the Act would not only be used to stop or delay development, but that it will be used to protect the environment which is the ultimate objective. He indicated that he would appreciate any suggestions in writing which would be submitted to his office. He stated that his office would consider the proposals, exclusions and amendments as provided for within the Act.

He indicated that everything as discussed was provided for in the Act and this should be used by the stakeholders. However, he stated that although his office is open for discussions, MET would first implement the Act to point out where things are not working well and then they would address those issues.

Mr Simon concluded by thanking the Commissioner and Dr Sikabonga for their time and cooperation and indicated that it was much appreciated.

The Commissioner concluded that he was looking forward to continued cooperation within the future which would improve the Act. He added that he would remain open for discussions and would remain transparent throughout the process. He requested, however, that people should understand that they are still in the process of setting up the department and their capacity was limited to only a few people.

The meeting ended at 15h00.

ANNEXURE E

KP FLOODLINE STUDY

Prepared for
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WI311-00676/02

OPUWO LOW COST RESIDENTIAL DEVELOPMENT FLOODLINE ANALYSIS

Rev	Description	Date
0	Issued in Final	12 June, 2020

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APPENDICES

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Appendix B	Final 1 in 25 Year Floodline

1.0 INTRODUCTION

Knight Piésold (KP) was appointed by Development Workshop Namibia (DWN) to conduct a floodline study on the project area. The project area is approximately 79 hectares in size, and is situated against the eastern edge of the Opuwo Airstrip as shown in Figure 1-1 below.

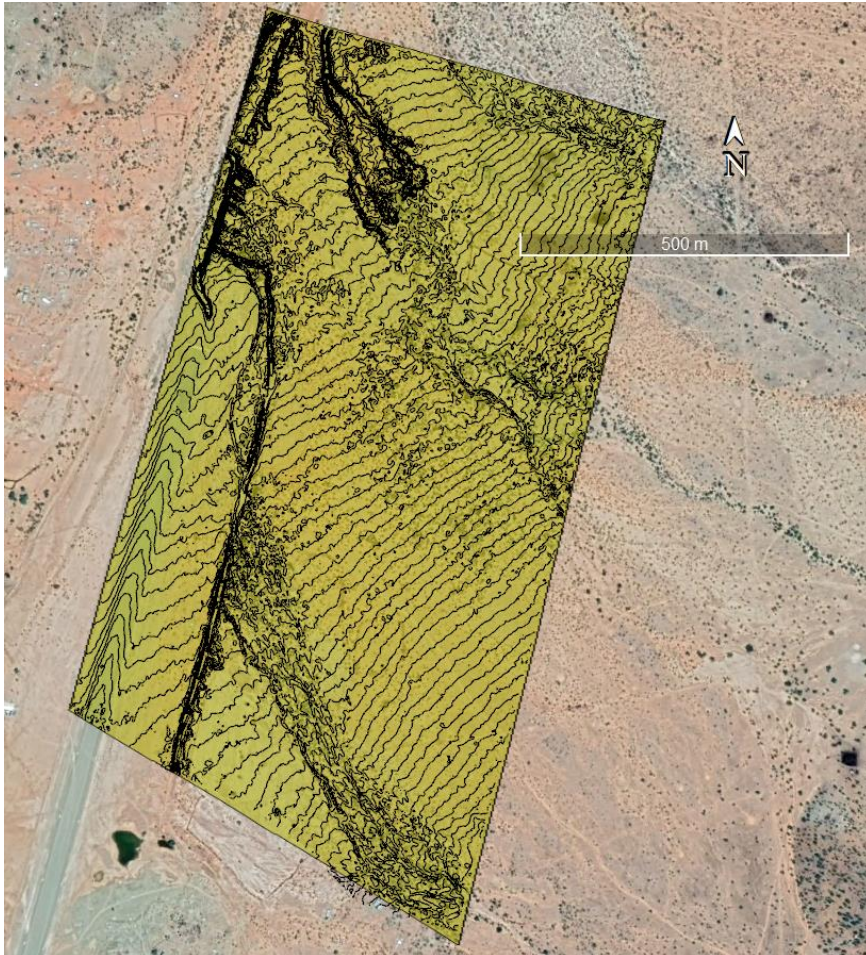


Figure 1-1 Project Area (Indicated in Yellow)

DWN in conjunction with the Opuwo Town Council intends to formalise and service the project area so that low cost plots can be sold to the residents of Opuwo.

The purpose of this study is to identify areas that are outside the 1 in 25 year floodline, so that these areas can be developed.

2.0 SITE CHARACTERISTICS AND DESIGN CRITERIA

2.1 SITE VISIT

A site visit was conducted on 28 May 2020 by K Langmaak from KP, in the presence of senior representative of the Opuwo Town Council, NamWater, Urban Dynamics and DWN. A comprehensive photo report is attached as Appendix A.

The site characteristics can be described as follows:

- The site naturally drains into a northerly direction.
- Well defined natural river channels (dongas) convey stormwater in a northerly direction
- The natural river channels are mostly lined with hard rock or alluvial material (refer Appendix A)
- The floodplains are largely reasonably flat, approximately between 1(V):70(H) to 1(V):100(H), characterised by low density mopane forests, as well as largely barren areas with very little undergrowth.
- The soil conditions of the floodplain and catchments can be described as mostly silty sand, with largely impermeable characteristics.

No other features or infrastructure could be identified within the project and catchment area that can significantly impact the hydraulics and floodline of the project area.

2.2 DESIGN CRITERIA

The applicable design criteria are summarised in Table 2-1 below.

Table 2-1 Design Criteria

Item	Design Criteria	Reference
Design Return Period	1 in 25 years	KP
Mean Annual Rainfall	325 mm/a	Adamson (1980)
Rainfall Region	Summer	KP
Lightning Density	1.0 flashes/km ² /a	Namibian Roads Authority (2014)
Design Rainfall Station	Opuwo (Station Nr 1145573)	Adamson (1980)
1 day design Rainfall	1:2 years – 45 mm (For input to Hershfield Equation)	Adamson (1980)
Area Distribution Factor	100 % Rural ^[1]	KP
Surface Roughness	<ul style="list-style-type: none"> • Floodplains: n = 0.04 • Bare plains & riverbeds: n = 0.03 	KP, Namibian Roads Authority (2014)

Catchment Areas	<ul style="list-style-type: none"> • Catch 2 – 0.83 km² • Catch 1&3 – 6.34 km² • Catch 4&5 – 1.65 km² • Catch 6 – 1.35 km² • Catch 9 – 0.11 km² 	KP
Longest Watercourse & Slope ^[2]	<ul style="list-style-type: none"> • Catch 2 – 1.92 km, 0.0084 m/m • Catch 1&3 – 7.35 km, 0.0195 m/m • Catch 4&5 – 3.44 km, 0.0176 m/m • Catch 6 – 3.98 km, 0.046 m/m • Catch 9 – 1.33 km, 0.005 m/m 	KP
Combined Runoff Coefficients ^[3]	<ul style="list-style-type: none"> • Catch 2 – 0.28 • Catch 1&3 – 0.31 • Catch 4&5 – 0.29 • Catch 6 – 0.33 • Catch 9 – 0.28 	KP, Namibian Roads Authority (2014)

NOTES:

1. ASSUMED, AS MOST OF THE CATCHMENTS ARE OUTSIDE THE DEVELOPMENT AREA
2. CATCHMENT SLOPE CALCULATED BASED ON 10-85 METHOD, AS DESCRIBED BY NAMIBIAN ROAD DRAINAGE MANUAL (2014)
3. FINAL RUNOFF COEFFICIENTS CALCULATED AS WEIGHTED AVERAGE OF RUNOFF COEFFICIENTS RECOMMENDED BY NAMIBIAN ROADS AUTHORITY (2014)

3.0 FLOOD HYDROLOGY

The flood hydrology was conducted based on the recommendations in the Drainage Manual (Namibian Roads Authority, 2014).

For comparison purposes, both the Rational Method and the Alternative Rational Method were evaluated and compared. Both methods are regarded as acceptable for most Namibian conditions, although the Rational Method tends to yield overconservative results. Furthermore, both methods are suitable for small catchments (smaller than 15 km²) and are therefore well suited for this project.

The catchment properties were derived based on aerial images (Google Earth and Bing Maps) as well as contour data from various sources, which includes 5 m contours from the Surveyors General office, as well as detailed contour data over the project area (dated February 2020), obtained from Herman Strydom and Associates. Key catchment characteristics are listed in Table 2-1.

A deliniation of the catchments is shown in Figure 3-1.

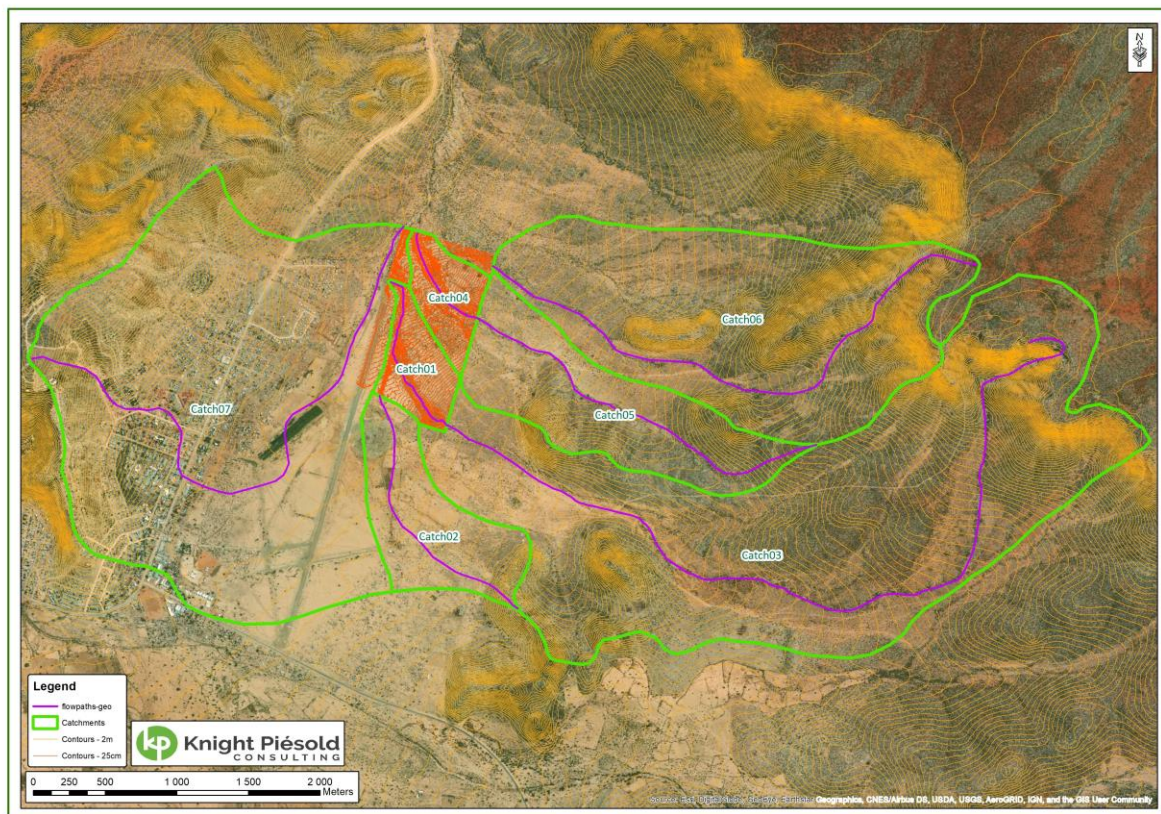


Figure 3-1 Catchment Delineation for Opuwo Floodline (2 m Surveyor General contours shown)

A summary of the flood hydrology is given in Table 3-1.

Table 3-1 1 in 25 year Peak Flow

Catchment ID^[1]	Rational Method (m³/s)	Alternative Rational Method (m³/s)
Catch 2	3.31	2.90
Catch 1&3	17.75	15.61
Catch 4&5	5.59	5.32
Catch 6	6.23	5.85
Catch 9	0.45	0.40

NOTES:

1. REFERS TO FIGURE 3-1

As shown in Table 3-1 above, both methods yield similar results, which is an indication that both methods yield satisfactory results. Considering that the Rational Method generally yields more conservative results, it was decided to adopt the results from the Alternative Rational Method for the floodline analysis.

4.0 FLOOD MODELLING & RESULTS

4.1 DESCRIPTION OF MODEL

The floodline was modelled using the HEC RAS software, using a 2 Dimensional (2D) hydrodynamic numerical model. The model area is limited to the area that was covered in the aerial survey (Figure 1-1).

Given the uncertainty regarding hydrological parameters, roughness coefficient etc., the resulting floodline should be regarded as approximate but conservative.

Peak flows for a 1 in 25 flood event calculated by the Alternative Rational Method (see Table 3-1) were used as input to the model. Note that that the incremental stormwater within the project area (i.e. Catch 1 and Catch 4) are applied at the upstream edge of the HEC RAS model. This is a slightly conservative approach but requires considerably less computing power and is overall a simpler approach to modelling the floodline.

The aerial survey data of the project area from Herman Strydom & Associates was scrutinised and it was found that the survey is of excellent quality, and therefore suitable to be used in the HEC RAS model. HEC RAS's build in mesh generator was used to generate approximately 86 000 cell elements. Breaklines were used to define the cells to be perpendicular to well defined drainage channels for accurate modelling.

Manning's roughness values were assigned to different areas of the model based on the field observations (refer to Appendix A):

- Floodplains (Mopane Forests) = 0.04
- Smooth Floodplains and River Channels = 0.03

The HEC RAS model was modelled as unsteady flow, with the peak flows assumed as constant throughout the simulation period of 24 hours. This is assumed to be sufficiently long for the model to reach steady state conditions. For acceptable accuracy, the model was computed using full momentum equations and a varying computational interval between 15 seconds and 4 minutes (based on Courants condition).

4.2 MODELLING RESULTS

The HEC RAS model was computed and validated. Several maps were generated that show the simulated flow velocity and flow depth over the project area, as shown in Figure 4-1 and Figure 4-12.

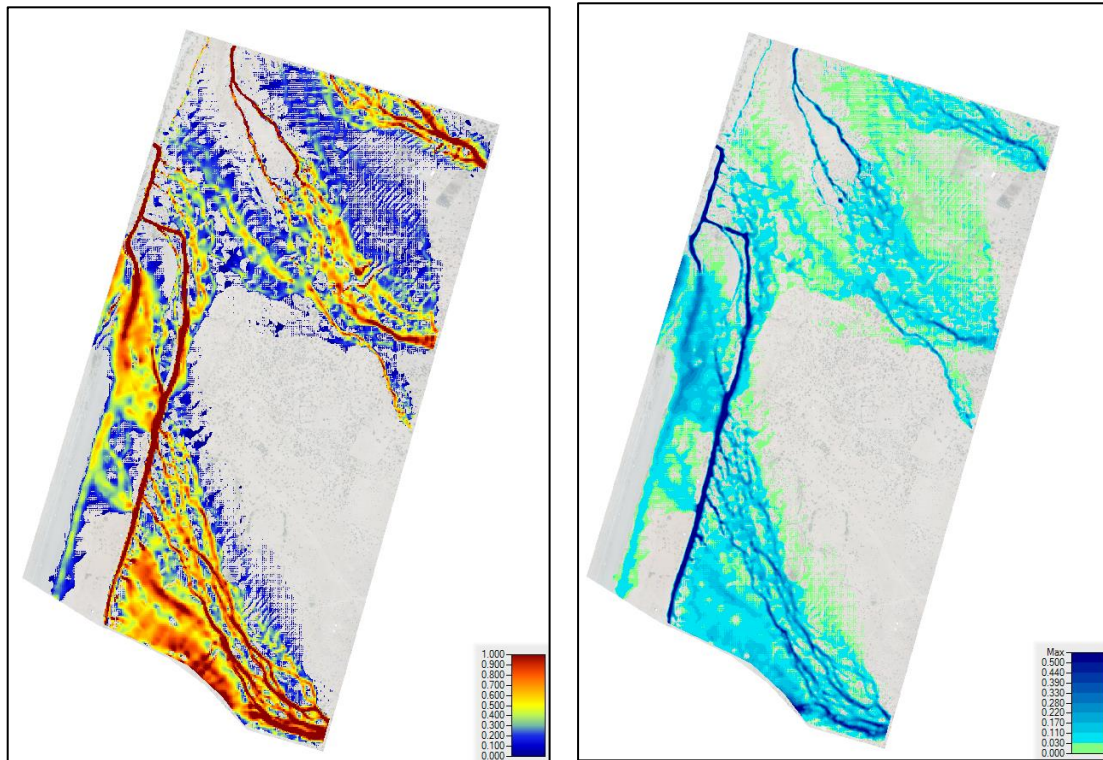


Figure 4-1 (Left) Velocity Distribution of the Project Area (in m/s) and Figure 4-2(Right) Flow Depth Distribution (in m)

The model results show a large inundation area during a 1 in 25 year flood. It is however noted that large areas of the project area are inundated with very low flow velocity (i.e. less than 0.1 m/s), at a very low flow depth (> 0.03 m, shown in light green in Figure 4-2). This does not pose a risk to the public and is only a temporary inconvenience to the residents of the housing development.

Given the nature of the development, and the low recurrence period of the modelled flood, the floodline was derived based on the assumption that a maximum flow depth of 0.03 m is acceptable.

The final floodline that is recommended for this project is attached as Appendix B.

It is further noted that a large area to the north east of the project area becomes inundated since the existing natural drainage channels do not have sufficient capacity to convey the stormwater. The model shows that the natural channels overtop, causing a more widely spread overland type flow, which results in a large area becoming inundated.

To maximise the area that is available for development, KP is of the opinion that the capacity of the natural drainage features can be increased by widening selected reaches of the natural channels at a comparatively small cost. However, this needs to be investigated in more detail.

5.0 CONCLUSIONS AND RECOMMENDATIONS

1. The 2D model shows that a large portion of the project area will be inundated during a 1 in 25 year flood.
2. The floodline recommended for development is based on a maximum flow depth of 0.03 m. Given the nature of the development and the rare occurrence of a 1 in 25 year flood event, this is considered acceptable.
3. The floodline/inundation area can likely be significantly reduced by widening selected reaches of the natural drainage channels, but needs to be investigated in greater detail.

6.0 REFERENCES

Adamson, P. T. 1980. *Southern African Storm Rainfall*. Republic of South Africa Department of Environmental Affairs. Ref. No. TR102

Namibian Roads Authority, 2014. *Drainage Manual*. 1st Edition. October 2014.

7.0 CERTIFICATION

This report was prepared and reviewed by the undersigned.

Prepared:

Kai Langmaak, Pr Eng
Civil Engineer

Reviewed:

Cilliers Mostert, Inc. Eng
Director

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APPENDIX A

Site Visit Photo Report

(Pages A-1 to A-3)



Photo 1: Typical Soil Conditions in the project area (Silty Sand).



Photo 2: Typical ground cover of the natural floodplains. The hydraulic roughness is roughness is estimated at approximately 0.4 m, which relates to a Mannings value of 0.03



Photo 3: Typical well defined drainage channel. The channel bottom is largely hard rock, and or covered with alluvial pebble. The hydraulic roughness is roughness is estimated at approximately 0.15 m, which relates to a Mannings value of 0.03



Photo 4: Typical well defined drainage channel



Photo 5: Typical well defined drainage channel

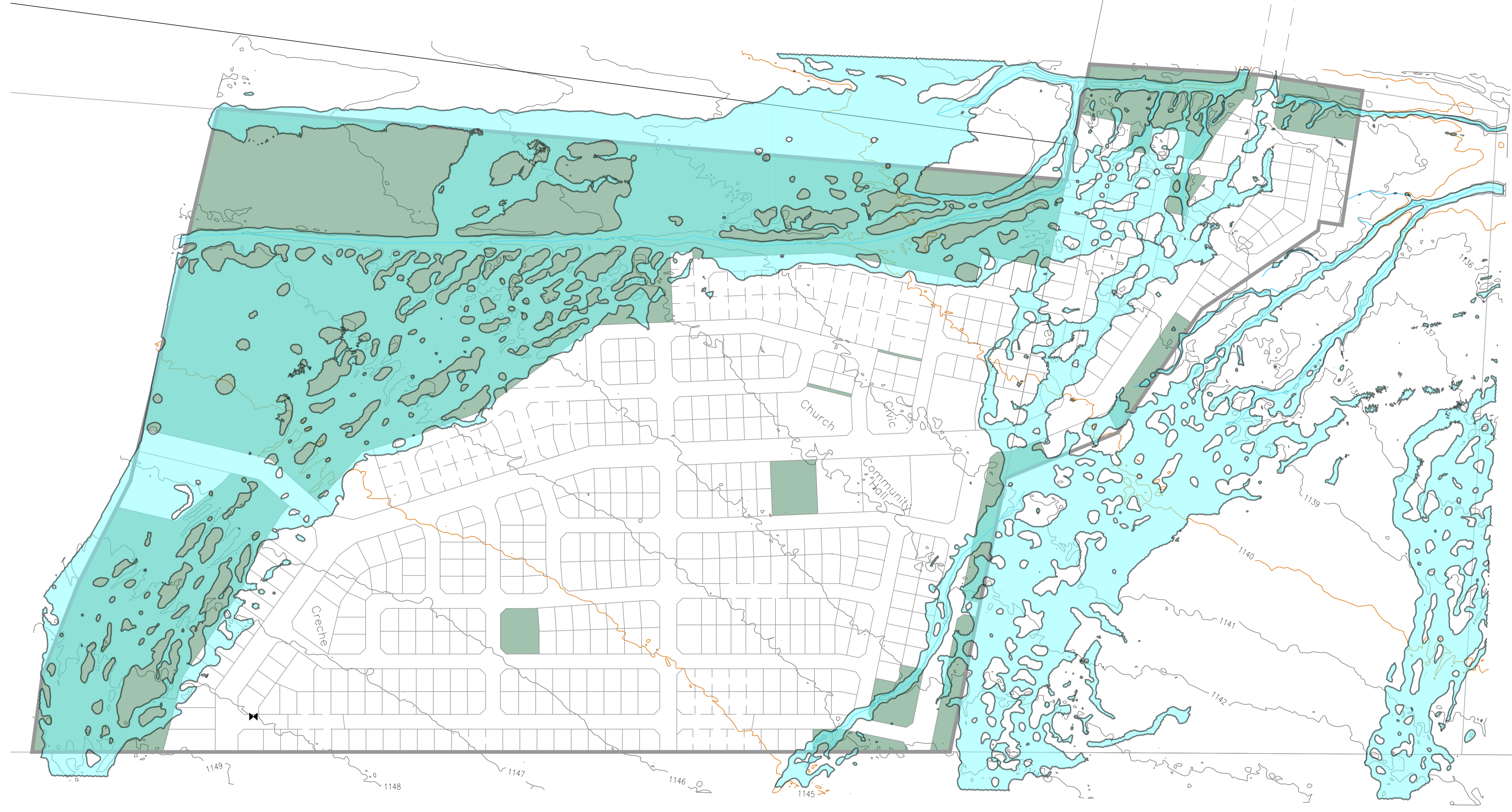
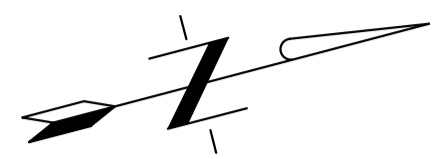


Photo 6: Typical Soil Conditions of the upper catchment areas(Silty).

APPENDIX B

Final 1 in 25 Year Floodline

(Pages B-1 to B-1)



LEGEND:

1 in 25 YEAR FLOODLINE

NOTES:

1. UNITS ARE IN METRES UNLESS OTHERWISE STATED.
2. CONTOURS ARE IN METERS UNLESS OTHERWISE STATED. CONTOUR INTERVAL IS 1m.
3. FLOODLINE IS BASED ON AERIAL SURVEY DATA FROM HERMAN STRYDOM, DATED FEB 2020
4. DRAFT TOWN LAYOUT BASED ON URBAN DYNAMICS DESIGN, DATED MAY 2020



PRIMARY DISCIPLINE	CIVIL		
DRAWN	KL	09.06.2020	
DRAWING CHECK	CM	09.06.2020	
DESIGN	KL	09.06.2020	
DESIGN CHECK	CM	09.06.2020	
PROJECT ENGINEER	KL	09.06.2020	

REVISION			
REV.No.	DATE	DESCRIPTION	APPD.
A	09.06.2020	ISSUED FOR CLIENT APPROVAL	KL
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DEVELOPMENT WORKSHOP NAMIBIA
 OPUWO INFRASTRUCTURE DEVELOPMENT
 1:25 YEAR FLOODLINE

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311-00676/01-CIV-001	1:2000	A

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