APPLICATION FOR ENVIRONMENTAL CLEARANCE:

SCOPING ASSESSMENT

FOR THE CONSTRUCTION OF ROADS, AND ASSOCIATED INFRASTRUCTURE THROUGH THE FORMALISATION OF OSHAKATI EXT 11 TO 13

PROPONENT:	CONSULTANT:
OSHAKATI TOWN COUNCIL P/BAG 5530 OSHAKATI **NAMIBIA**	**URBAN DYNAMICS AFRICA** P O BOX 20837 WINDHOEK **NAMIBIA**

SUBMISSION:

MINISTRY OF ENVIRONMENT FORESTRY AND TOURISM
PRIVATE BAG 13306
WINDHOEK
NAMIBIA

REFERENCE: 1328
ENQUIRIES: HEIDRI BINDEMANN-NEL
ALISON ANDERSON
JADE DE KLERK
TEL: +264-61-240300
FAX: +264-61-240309

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DOCUMENT INFORMATION

Title	Scoping Report for Construction Of Roads, And Associated Infrastructure Through the Formalisation of Oshakati Ext 11 To 13
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Project Manager	Allison Anderson
Project Manager Email	allison@udanam.com
Author	Jade de Klerk
Reviewer	Heidri Bindemann-Nel
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ABBREVIATION:	DESCRIPTION:
am	ANTE MERIDIEM / BEFORE MIDDAY
Av	AVENUE
BID	BACKGROUND INFORMATION DOCUMENT
DEM	DIGITAL ELAVATION MODEL
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
FRMP	FLOOD RISK MANAGEMENT PLAN
i.e.	ID EST. / IN OTHER WORDS
I&APs	INTERESTED AND AFFECTED PARTIES
NBD	THE NAMIBIA BIODIVERSITY DATABASE
NHC	NAMIBIAN HEALTH CARE
NORED	NORTHERN REGIONAL ELECTRICITY DISTRIBUTOR
pm	POST MERIDIEM / AFTER MIDDAY
SME	SMALL-AND-MEDIUM-SIZED ENTERPRISE
TRRP	TREE REMOVAL AND REPLACEMENT PLAN
UDA	URBAN DYNAMICS AFRICA
URPB	URBAN AND REGIONAL PLANNING BOARD
WMP	WASTE MANAGEMENT PLAN
UNIT SYMBOL:	**UNIT DESCRIPTION:**
0^c	DEGREES CELSIUS
E	EAST
ha	HECTARES
Km	KILOMETRE
m	METER
mm	MILLIMETRE
S	SOUTH
m^2	SQUARE METERS
%	PERCENTAGE

1 INTRODUCTION

Oshakati Town Council appointed Urban Dynamics Africa (Pty) Ltd. (UDA) to obtain statutory approval for township establishment. This involves the creation of public streets, creating erven for various land uses such as, residential, business, institutional uses and public open spaces. This will allow for the construction of service infrastructure such as water, electricity and sewer.

The township establishment as mentioned above requires Environmental Clearance for the creation of public streets and infrastructure development through a township establishment on Extensions 11 to 13, Oshakati in the Oshana Region.

The relevant documentation is included in support of our application to the Environmental Commissioner; please refer to the appendices attached hereto.

2 BACKGROUND

Oshakati is one of the beneficiaries of the government's Mass Formalisation Project Initiative. The Oshakati Town Council were therefore given the opportunity to formalise informal settlements located in its jurisdiction. The Council therefore identified Oshakati Extensions 11 to 13 to be formalised under this project initiative.

These informal settlements have a predominantly residential land use, accompanied by business and institutional uses. It is important to mention, the Council obtained Ministerial approval for these extensions between 2001 and 2003. However this approval lapsed before the submission of a general plan to the Surveyor General for approval. The Council remained proactive and surveyed the extensions as approved by the Minister. Over the years, the Council allowed the occupation of these pegged erven, providing water and electricity to individual erven. Now, more than a decade later, these townships are almost fully occupied.

Due to the informality of these townships/extensions, these occupants/households could not purchase the erven they are located on, they could only lease them. This will project therefore contribute to an adequate supply of residential properties and formalise property ownership. The portion numbers were reserved by the Suveyor General's office at Ministry of Agriculture, Water and Land Reform.

The Oshakati Town Council has identified this development as a strategic urban expansion, ensuring the planned growth of the town while supporting housing needs.

As a result, Oshakati Town Council appointed UDA to plan and obtain Environmental Clearance to establish a new township on Extensions 11 to 13, within the Remainder of Farm Oshakati Town and Townlands No. 880 in the Oshana Region.

Figure 1: The Locality of Oshakati

For 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

The purpose of the proposed project is to formalise and establish Oshakati Extensions 11 to 13 to ensure orderly urban expansion and address the town's housing demand. The initiative will provide secure property ownership to existing residents, reduce informal settlement growth, and enable the provision of essential bulk services such as water, sewerage, electricity, and roads.

By formalising the Oshakati Extensions 11–13, the Oshakati Town Council seeks to support the planned growth of the town, improve service delivery, and promote sustainable urban development in line with national housing and planning priorities.

4 NATURE OF THE ACTIVITY

Township establishment, in itself, is not a listed activity under the Environmental Management Act (Act No. 7 of 2007) and its Regulations. However, the construction of bulk infrastructure and public roads required for the township development are listed activities in terms of the Environmental Impact Assessment Regulations, GN No. 30 of 2012. These works therefore require an Environmental Clearance Certificate (ECC) from the Ministry of Environment, Forestry and Tourism (MEFT).

The following listed activities are triggered under Section 10: Infrastructure of the Regulations:

- 10.1 The construction of –
  - (b) Public roads.
- 10.2 Route determination of roads and design of associated physical infrastructure where –
  - (a) it is a public road.

In addition, depending on the alignment of bulk pipelines and drainage works, the following activities under Section 8: Water Resource Developments may apply if works fall within sensitive areas such as oshana's, flood lines, or catchment areas:

- 8.6 Construction of industrial and domestic wastewater treatment plants and related pipeline systems;
- 8.8 Construction and other activities in watercourses within flood lines;
- 8.9 Construction and other activities within a catchment area.

This application therefore focuses on the formalisation of Oshakati Extensions 11–13 and the associated bulk service infrastructure that legally requires environmental authorisation.

Key Project Activities

- **Township Formalisation**
  Regularisation of surveyed layouts (originally designed in 2015) to establish legally recognised extensions and secure property ownership for existing and future residents.
- **Bulk Infrastructure Provision**
  Installation of water supply pipelines, sewer networks, and electricity distribution systems to service the newly created erven. These may include pipelines traversing low-lying areas or flood lines.
- **Road Infrastructure Development**
  Construction of access and internal public roads, including route determination and design of associated physical infrastructure.
- **Urban Service Delivery**
  Strengthening and expansion of essential services, including potable water and electricity, which have already been extended to the Oshakati Ext 11 to 13 by the Oshakati Town Council.

5 LEGISLATION

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

STATUTE	PROVISIONS	PROJECT IMPLICATIONS
THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, 1990:	The state shall actively promote and maintain the welfare of the people by adopting, inter-alia, policies aimed at the following: (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.*	Ensure that the ecological integrity of the ecosystems of the area is protected.
ENVIRONMENTAL MANAGEMENT:	**Environmental Management Act No.7 of 2007:** **EIA Regulation (EIAR) GN 57/2007 (GG 3212):** In terms of Sections, 10.1(b) and 10.2(a) for environmental clearance for the construction of oil, water, gas and petrochemical and other bulk supply pipelines, the construction of public roads. In terms of Sections 8.6, 8.8, 8.9, 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. In terms of Section 1.1 (b) for construction of electrical lines for electricity provision in the townships. Prescribes the procedures to be followed for authorisation of the project (i.e. Environmental clearance certificate).	Evaluate if the alignment of the street will impact the social and natural environment. Determine if the risk of flooding of the erven is at acceptable levels. Determine if the proposed limited infill would impact the function of the watercourse or cause flooding elsewhere. Determine how water and wastewater pipelines in the riverbed should be designed, constructed and maintained to prevent groundwater and other pollution.

WATER AND RESOURCES MANAGEMENT:	**The Water Act No. 54 of 1956 and Water Resources and Management Act No.27 of 2007 Section 92:** 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. 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 Section 100 (f) prescribe measures for control and management of storm and flood risk within local authority areas. Section 101 (b) development on the banks of any wetland or dam; and Section 101 (c) the removal of rocks, sand or gravel or any other material from a watercourse.	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.
THE PUBLIC HEALTH AND HEALTH AND SAFETY REGULATIONS:	**The Public Health Act 36 of 1919 as amended and the Health and Safety Regulations:** These acts control the existence of nuisances such as litter that can cause a threat to the environment and public health.	Prevent activities that can have an impact on the health and safety of the public.
COMPENSATION OF STRUCTURES OR FIELDS	**Cabinet Compensation Policy Guidelines for Communal land:** Providing compensation to individuals regarding relocating people, removing fruit trees, or developing Mahango fields within communal land.	Assess to what extent the proposed policy complies with the plan's provision to ensure the rights of individuals within communal land.

6 METHODOLOGY

The following section outlines the methodology employed by UDA to undertake a comprehensive site assessment through a SWOT analysis, evaluating the site's strengths, weaknesses, opportunities, and threats. This analytical framework informs the formulation of a strategic planning approach aimed at optimising inherent strengths, addressing identified constraints, capitalising on opportunities, and mitigating potential risks. The assessment comprehensively considers both the natural and socio-economic environments within which the project is situated, ensuring a context-sensitive and sustainable layout design.

6.1 SITE INFORMATION AND TOPOGRAPHY

Urban Dynamics undertook site visits in August 2015 and July 2025 to identify the existing structures, infrastructure, topography, land uses, and how the settlement is currently functioning. Most of the structures were built as per the pegged layout.

6.2 PUBLIC CONSULTATION

Figure 2 Community Meeting

Urban Dynamics launched a public consultation campaign to ensure that any person interested in the project will have an opportunity to register as a stakeholder. Newspaper notices were placed in two separate newspapers simultaneously for two successive weeks, and a notice of intent was placed at the site. The advertisements, which were placed, are attached as Appendix "C". Representatives of Urban Dynamics and the Oshakati Town Council held a community meeting on the 11th of July 2025 at Oshakati Ext 11.

The meeting agenda included a presentation of the layout by the Urban Dynamics team, followed by a discussion that incorporated input from the community and all relevant stakeholders regarding the layout and the possible environmental impacts.

7 DESCRIPTION OF THE SITE

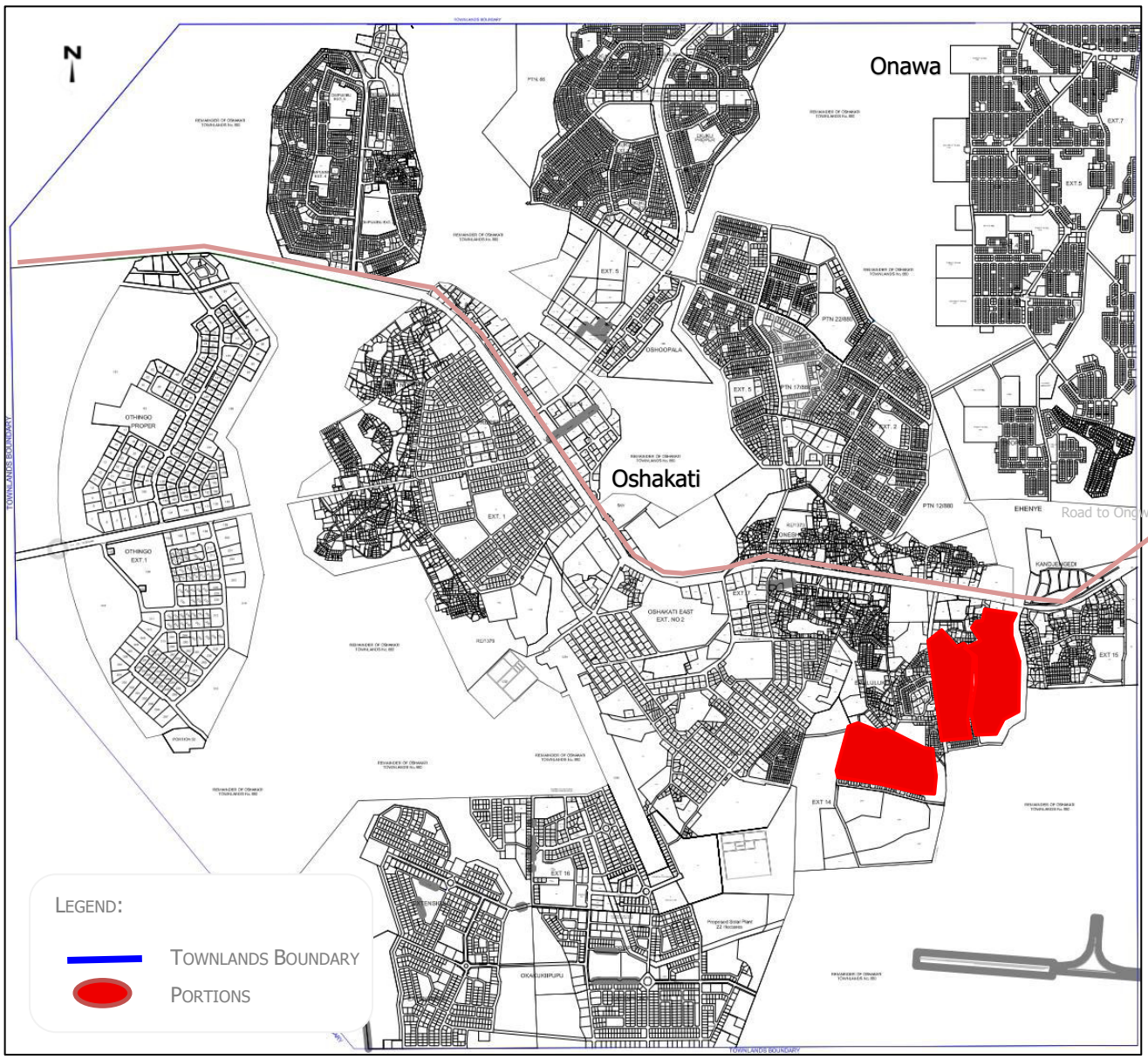
This section provides a planning description of the proposed project site relative to the surrounding urban areas, existing use and settlement, services and other infrastructure, topography, and other site features.

7.1 LOCATION OF THE SITES

The proposed development is located on Portion 136, 36 & 46 of the remainder of Oshakati Town and Townlands No. 880. The project falls within the Oshana Region under Registration Division A.

The portions are south of the C46 road leading to Ongwediva, and west and south of the D3607. The site is located at -17.793517 S, 15.723089 E. A locality plan is attached as Appendix "B".

Figure 3: Locality of the Project Area



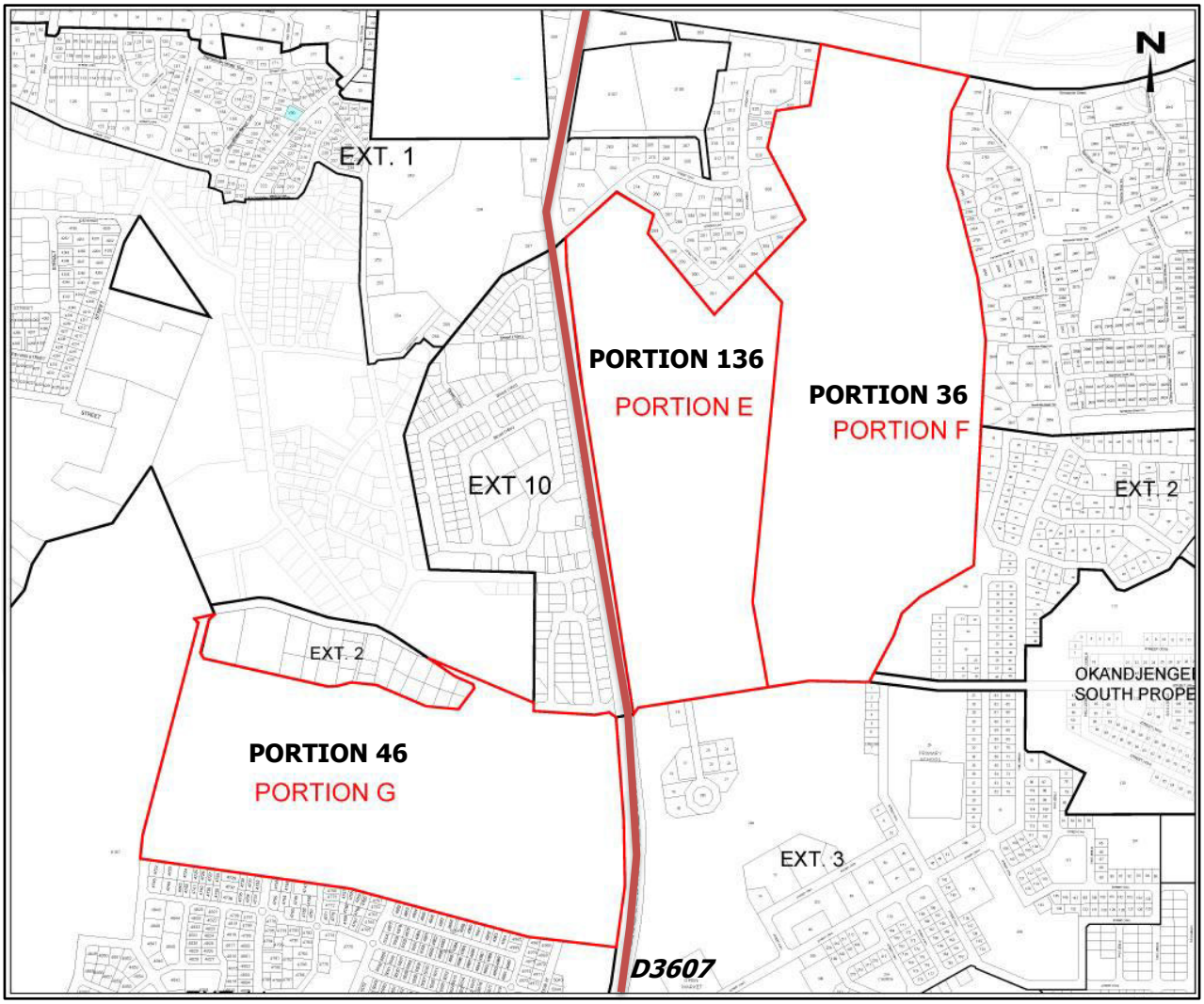
7.2 OWNERSHIP, SIZE, AND SHAPE OF THE PORTION

The Oshakati Town Council is the registered owner of the project site. According to the Oshakati Zoning Scheme, the project sites are zoned "Undetermined". The project sites combined measures approximately 799 938 m^2 in extent. Figure 4 illustrates the shape of the portions. Table 1 provides the portion's size and zoning.

Table 1: Portion Size

Portion	Area (m^2)	Zoning
Portion E (Ext 11)	208 555	Undetermined
Portion F (Ext 12)	318 142	Undetermined
Portion G (Ext 13)	273 241	Undetermined

Figure 4: Shape of the Portions



7.3 LAND USE ACTIVITIES

The proposed extensions are almost fully occupied, and majority of the erven are used for residential purposes. The Evululuko Secondary School is located in Oshakati Ext 11 (Portion 136) and a number of business activities take place in these extensions.

Figure 5: Land use Activities

7.4 ACCESS AND UTILITY SERVICES

The following access and utility services are available at the project site and will be upgraded or extended as part of the township formalisation process:

7.4.1 Road Access

The site currently obtains access from the District Road 3607 which leads traffic to Oluntenda. This is a Roads Authority Road and is 30m in width. Oshakati Extension 11 to 13 are located both east and west of the D3607 district road. Access to the townships will be from the D3607 district road and proposed to be a full intersection providing access to erven on both sides of the D3607.

7.4.2 Water Connection

NamWater supply bulk water to the Oshakati. The town's water reticulated network supplies water to formal residents and businesses. Informal areas get water through communal taps, and some has individual connections.

Oshakati Town Council currently provides water connections to a majority of the erven in these extensions, reflecting a level of service infrastructure already in place despite the informal settlement status.

7.4.3 Electrical Supply

The development site is supplied from Oshakati's reticulated network through the nearby Oshakati Town Council through Oshakati Premier Electric network. Electricity lines are evident on site.

Figure 6: Electricity Lines and Pit Latrines

7.4.4 Sewerage

A sewerage reticulation network and pump station serve the formal Oshakati, while unserviced portions currently rely on on-site sanitation solutions such as pit latrines until formal sewer infrastructure is extended.

7.4.5 Communication

The town has accessibility to selected services, including television, radio, newspaper, telephone, and cell phone.

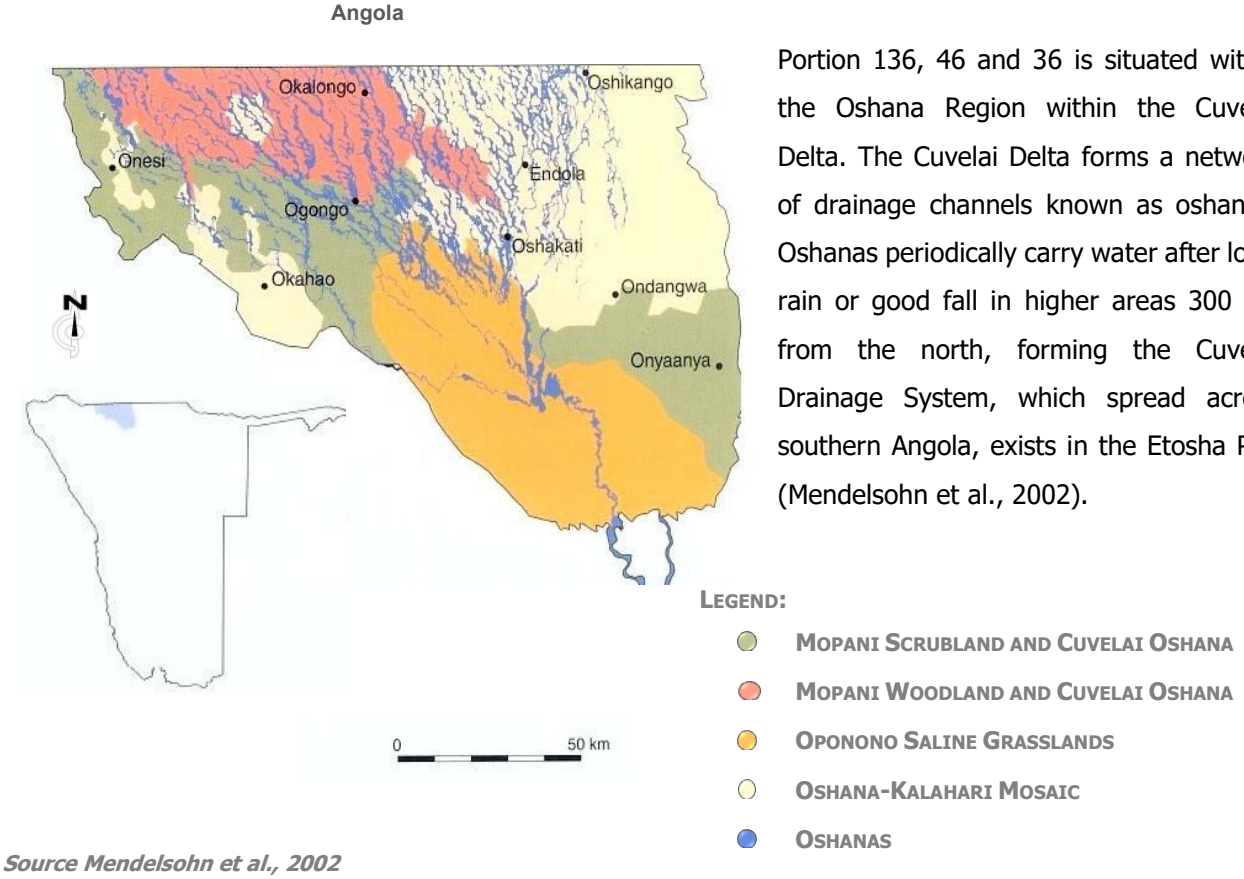
7.5 CULTURAL RESOURCES

The site has no items of historical value or any that could be identified within the development site boundaries. In the event that any site of historical value is identified during the formalisation process, the Oshakati Town Council shall assume full responsibility to ensure that all relevant legislative and regulatory procedures are rigorously followed.

7.6 ENVIRONMENTAL CHARACTERISTICS AND TOPOGRAPHY

7.6.1 Natural Environment

Figure 7: Vegetation within the Cuvelai Delta



Source Mendelsohn et al., 2002

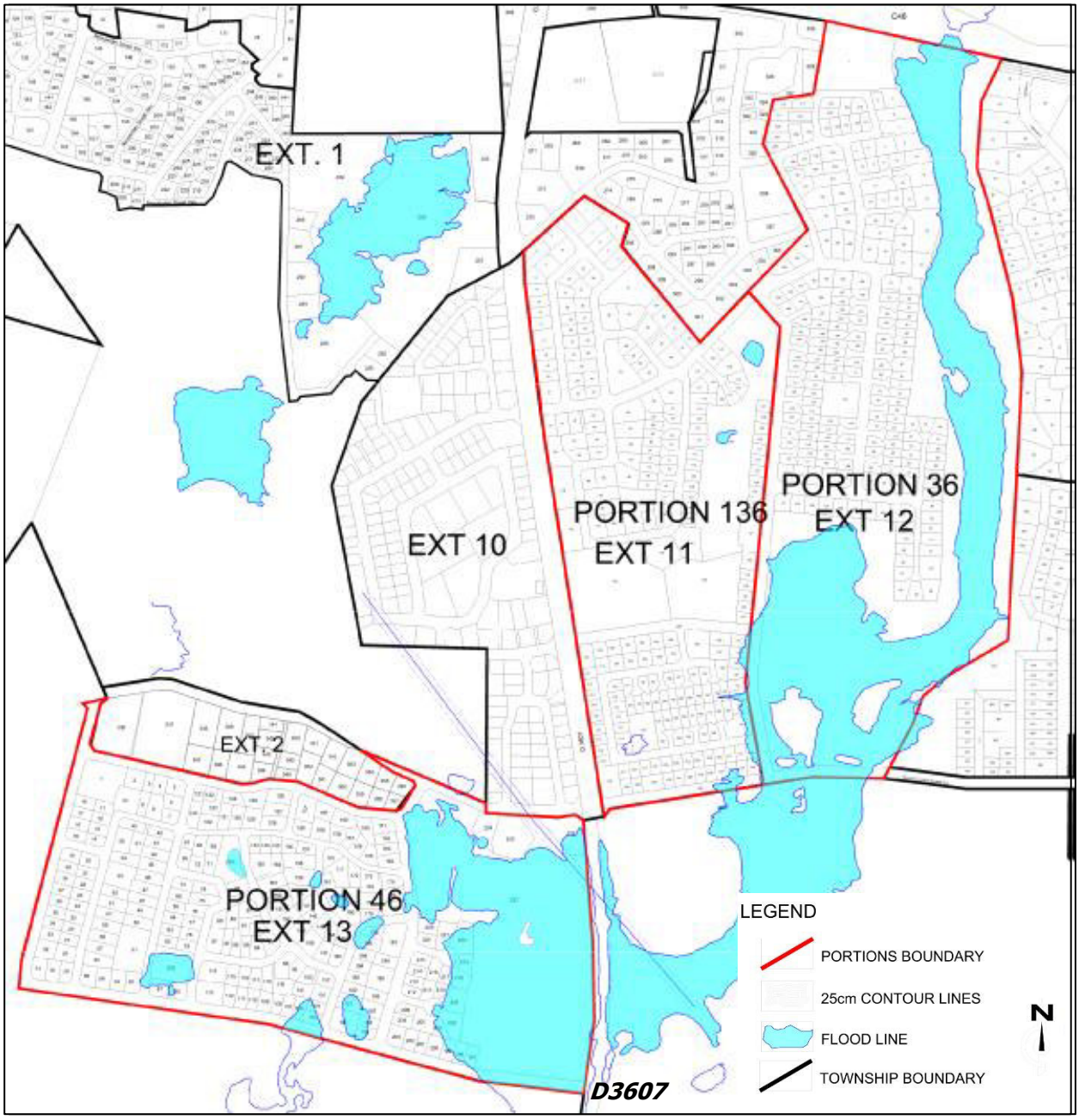
Portion 136, 46 and 36 is situated within the Oshana Region within the Cuvelai Delta. The Cuvelai Delta forms a network of drainage channels known as oshanas. Oshanas periodically carry water after local rain or good fall in higher areas 300 km from the north, forming the Cuvelai Drainage System, which spread across southern Angola, exists in the Etosha Pan (Mendelsohn et al., 2002).

7.6.2 Topography and Flooding

The site is characterised by developable land accompanied by depressed areas which are undevelopable. Depressed areas are identified as the flood prone areas determined by the 1093.5m contour lines. This can be seen in **Error! Reference source not found.**, showing the flood prone areas. Majority of the flood prone areas are identified as public open spaces.

The development of the project site should consider the oshanas/ watercourses during the planning phase to prevent flooding during the rainy season.

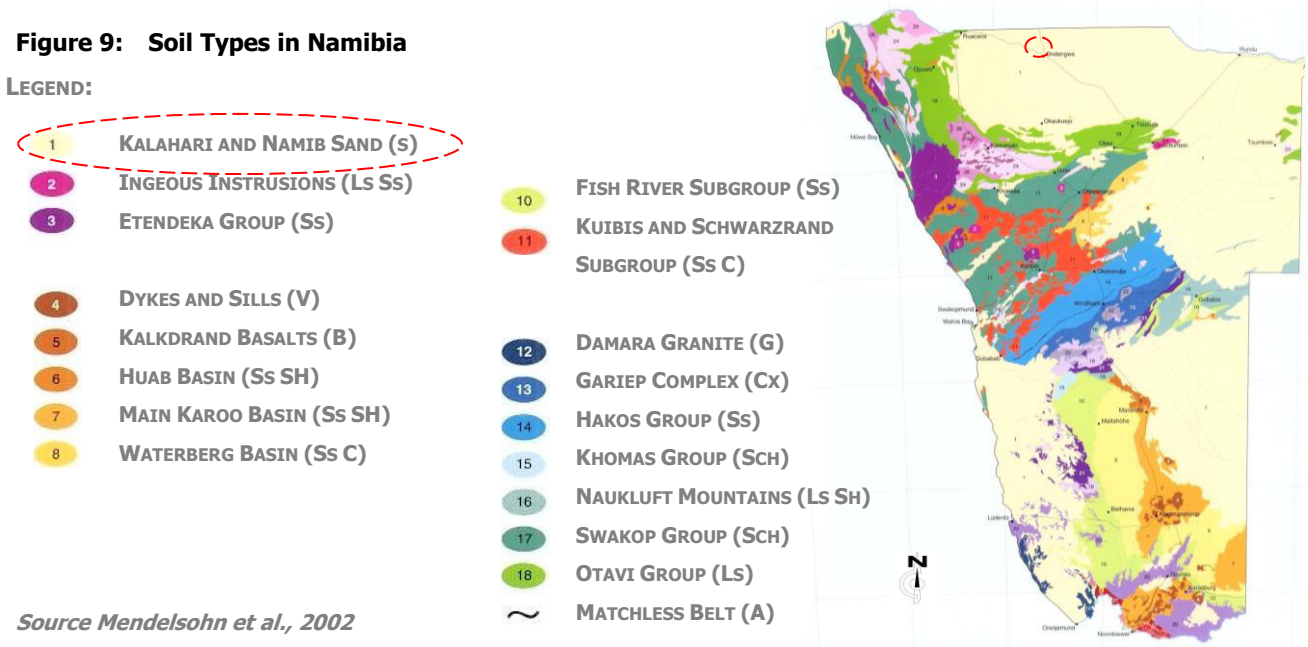
Figure 8: 1093, 5m Flood Line



7.6.3 Soil Conditions

Surface soils across the region are sand-dominated, with some areas covered by the Otavi Group. Figure 9 indicates that Extension 11 to 13 are situated within the Kalahari and Namib Sand area of Namibia (Mendelsohn et al., 2002). The image below shows the sandy soil surface at the site.

Figure 9: Soil Types in Namibia



Source Mendelsohn et al., 2002

Figure 10: Soil Conditions at the Site

7.6.4 Vegetation Conditions:

Figure 11: Fruit Trees

Oshakati's vegetation consists of the Oshana-Kalahari Mosaic (Mendelsohn et al., 2002). Trees on the site include Makalani Palm Trees (Hyphaene petersiana), Jackalberry Trees (Diospyros mespiliformis) and the Manketti Trees (Schinziophyton Reatanenii), i.e.

As indicated in Figure 11**,** large trees, shrubs, and grass vegetation form clusters on the site. Due to already existing structures on the portions, the development site has low green vegetation biomass.

During the infrastructure planning and construction phases, emphasis should be placed on protecting fruit- and large trees.

Figure 12: Large Trees

7.6.5 Habitats on Site

Due to the existing layout & its occupation, the area is ecologically degraded, no longer pristine, and not fully functional at the ecosystem level. It may be best described as an impacted ecosystem and is not a natural environment. The portions have been altered by human activity, including settlement, road infrastructure, and associated land clearance, which has led to a substantial reduction in native vegetation cover and habitat complexity. Remnants of natural habitat are fragmented and offer minimal ecological value.

The ecological degradation is the result of multiple pressures, such as the expansion of informal and formal settlements. All these activities contribute to soil disturbance and general decline in biodiversity.

7.6.6 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 and extremely high rates of evaporation. The average monthly temperature at Oshakati ranges from 17°C in July to 36°C in December. The fewest hours of sunshine experienced per day is about 7 hours in January when there is a lot of cloud cover, and the area also receives the most rain. From May to September, Oshakati has about 10 hours of sunlight each day.

Most rain-bearing clouds are fed into the country by north-easterly winds and blocked by dry air from the south and the west (Mendelsohn et al., 2002). As such, the South and Western parts of the country receive less rainfall than the central and northern parts of the country. The average monthly humidity at midday ranges from 50% in March to 17% in September. Approximately 99% of the annual rainfalls are from October to April, with January receiving the most precipitation. The average yearly rainfall across the north-central regions increases from west to east, less than 300mm and not more than 550mm (Mendelsohn et al., 2002).

Winds in Oshakati are infrequent, as the area experiences calm wind about 57% of the time. Winds mostly blow from the east and seldom reach speeds exceeding 10 km per hour. The windiest months are from January to April.

7.7 STATUS OF PROTECTED AREA

The site itself has no protected status. However, site is mostly occupied as per the proposed layout. Therefore, no further impacts will be experienced. Oshanas and watercourses are present on site and should be considered.

7.8 SUMMARY OF THE HABITATION ON SITE

Due to the existing layout and its occupation, extensive habitat alteration occurred. The site is ecologically impacted, no longer pristine, and not fully functional at the ecosystem level. It may be best described as an impacted ecosystem and is not a natural environment.

Key environmentally relevant features show that:

- The development site Oshakati Extension 11, 12 & 13, is located at -17.793517 S, 15.723089 E, situated to the south of the C46 road and Evululuko; and west of Oshakati Extension 15.

- Activities on the site include 669 residential erven with a mixture of permanent and temporary structures, which include cuca shops, bars and a secondary school. Road tracks run through the site.
- Oshakati is situated in the Oshana Region, which is located in the Cuvelai Delta. Oshanas/watercourses flow through parts of the site, and part of the site is impacted by seasonal flooding.
- Vegetation surrounding the development site consists of the Oshana-Kalahari Mosaic;
- No significant low-level vegetation remains in the area but scattered larger trees, and no large wild mammals reside within the development site; and
- The site includes a secondary school and a kindergarten. No other items of institutional uses were found or could be identified within the development site boundaries.

The environmental screening has identified no significant biodiversity concerns associated with the proposed development, and consequently, no additional ecological investigations are warranted at this stage. The site layout should incorporate considerations for oshanas and natural watercourses, existing structures, and mature trees within the area. Where removal of red listed trees is unavoidable, the necessary permits must be obtained from the Department of Forestry. Based on these findings, it is recommended that the development advance without the need for further ecological assessment, as provided for under Articles 33 and 34 of the Environmental Management Act.

7.9 PROJECT AREA OF INFLUENCE

The Area of Influence extends beyond the township boundaries to include:

- Directly affected land parcels within Oshakati Extensions 11–13;
- Neighbouring communities in Evululuko Proper and Extension 1, Oshakati Extension 15, and Okandjengedi South; and
- Associated infrastructure corridors, including sewer pipelines, road alignments, and drainage channels.

The AoI encompasses both direct environmental impacts (e.g., flooding, vegetation clearance, construction disturbance) and indirect social impacts (e.g., dust, noise, vibration, traffic disruptions).

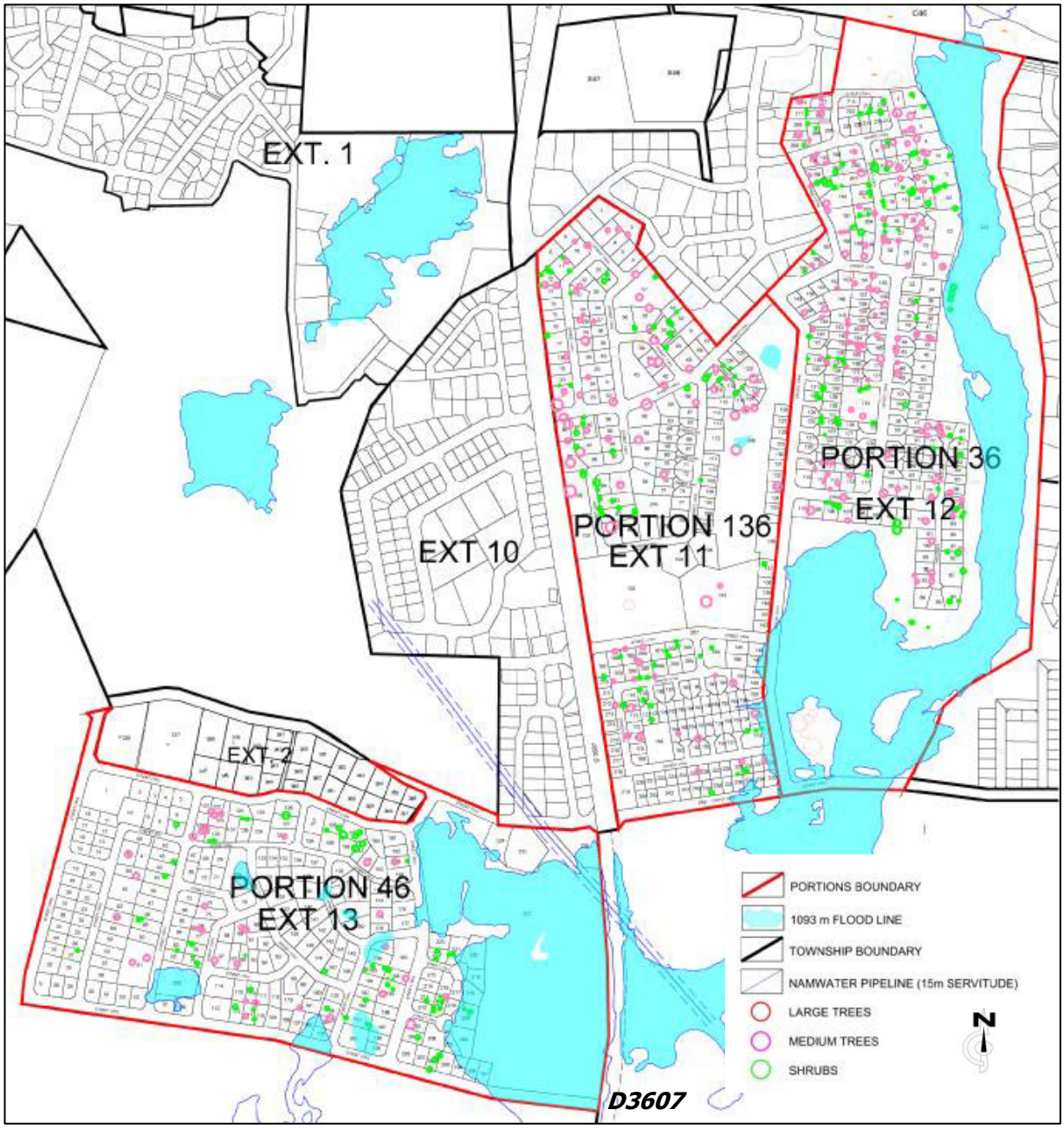
Positive impacts expected across the AoI include:

- Provision of urgently needed serviced land;
- Formalisation of land tenure and reduction of informal settlement pressures;
- Short-term construction employment and local SME opportunities; and
- Long-term council, regional, and national economic benefits through taxes, service charges, and economic activity.

7.10 SUMMARY OF THE PLANNING CONSTRAINTS

As indicated on Figure 13**,** planning constraints on the site include existing structures, large trees, oshanas/watercourses and the school (Evululuko Secondary School).

Figure 13: Planning Constraints



8 THE PROJECT

The client intends to establish new townships within portions of the Oshakati Town and Townlands No. 880. The townships will consist of mixed-use neighbourhoods, meeting the rising demand for housing and business plots within Oshakati and the Oshana Region.

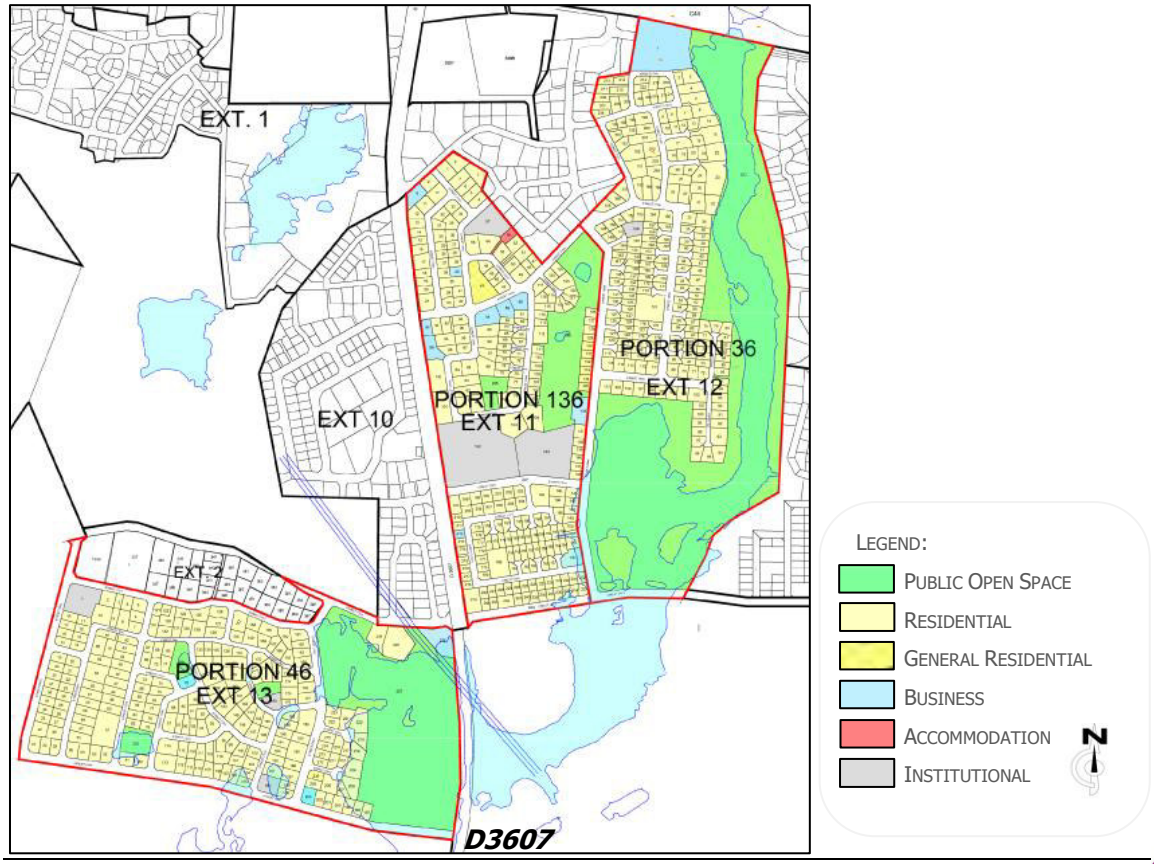
8.1 LAYOUT DETAIL

The proposed layouts alter the portion's current zoning from Undetermined to include Residential, General Residential, Institutional, (which includes a secondary school), Business, and Public Open Space. The erven shapes and sizes are illustrated in Figure 14 and Table 2.

Table 2: Erf Sizes and Zonings

ZONING	Erf #	Total Size m²	Ave Size m²	%
Residential	669	341,821	511	43%
General Residential	1	2,385	2,385	0%
Local Business	2	1,274	637	0%
Business	11	19,004	1,728	2%
Accommodation	1	1,113	1,113	0%
Institutional	7	32,425	4,632	4%
Civic	1	615	615	0%
Public Open Space	7	263,409	37,630	33%
Street Portions	2	15,481	7,741	2%
Rem/Street		122,463		15%
TOTAL	**701**	**799,990**		**100%**

Figure 14: Zonings Map



8.1.1 Planned Bulk Infrastructure Includes

Roads: Construction of gravel road network with widths between 8m and 16m, designed to accommodate light vehicles and service vehicles. Roads will connect to the existing Oshakati road network.

Sewerage: Construction of a sewer pump station and reticulation network to service formal erven. Areas not yet connected will temporarily use septic tanks or dry systems.

8.1.2 Provision for Drainage

Stormwater drainage should be designed, and culverts need to be used to accommodate the water flow.

8.1.3 Construction Activities

The construction phase will involve:

- Light bush clearing and removal of informal waste.
- Earthworks (levelling, trenching, backfilling).
- Installation of roads, pipelines, sewer lines, and electrical infrastructure.
- Erection of streetlights, transformer bases, and electrical poles.
- Connection of bulk infrastructure to municipal systems.
- Placement of safety signage, fencing, and traffic barriers.

Construction equipment will include excavators, graders, water trucks, tipper trucks, compactors, trenchers, and hand tools.

9 POTENTIAL IMPACTS

During the preparation of the extension layouts, the planning team continuously assessed both positive and negative environmental and social impacts. Where possible, the design was adapted to avoid or reduce risks, integrate natural features, and enhance project benefits. This section therefore provides a preliminary assessment of potential impacts and highlights the preventative design measures already integrated into the layout.

It is important to note that detailed mitigation and management measures will be set out in the Environmental Management Plan (Annexure 6), which will guide implementation during both the construction and operational phases.

9.1 SUMMARY OF POTENTIAL IMPACTS

The formalisation 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 of fully serviced erven.
- Formalisation of land tenure, reducing informal settlement pressures.
- Stimulation of economic activity and employment opportunities.
- Improved health, safety and wellness through access to services and better circulation.

9.1.2 Potential Negative Impacts during Construction

- Vegetation removal and tree loss.
- Dust and air pollution.
- Noise from construction machinery.
- Increased traffic and safety risks.
- Health and safety risks to workers and residents.
- Construction waste generation.

9.1.3 Potential Negative Impacts during Operations

- Risk of flooding in low-lying areas.
- Waste generation and pollution if not properly managed

9.2 POTENTIAL IMPACTS

9.2.1 Project Benefits

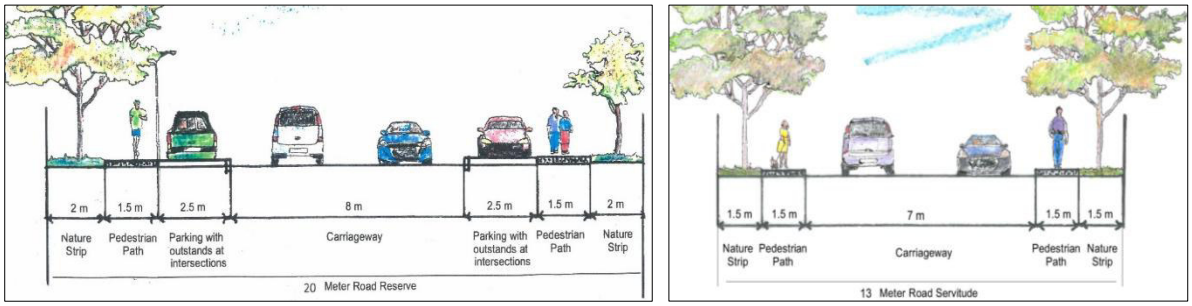
- **Provide for fully serviced erven.** Enables fully serviced erven with clearly defined boundaries, enabling communities to obtain formal and permanent land occupation. This ensures land tenure security for residents. The formal layout process establishes a structured development framework that curtails uncontrolled settlement expansion and effectively manages existing informal developments.

- **Formalisation of existing secondary school erf.** The erf on which the school facilities are located will be formalised through the establishment of the new township.

- **Stimulate employment creation and local economic development.** The development will lead to employment creation during the construction and operation phases. By providing for additional business erven, the project will render services within the formal economy of Oshakati, employ staff, contribute to rates and taxes and spend money within the same economy.

- **Stimulate health and wellness within the Oshakati Townlands.** The site does have water and electricity connect but with the absence of sewer infrastructure. The layout will provide much-needed sewer connections that are safe and in line with the layout. The current roads are properly aligned roads which ease traffic circulation within the township. Clearly defined routes will allow for the provision of pedestrian infrastructure, creating a safe walking environment.

Figure 15: Provision for Pedestrians



9.2.2 Negative Impacts during Construction

The project impacts during construction are:

- **Impact of the removal of trees from the site.** As this is a brownfield development, the planning layout has been carefully designed to preserve the majority of existing vegetation. No tree removal is anticipated under normal circumstances. However, should the removal of red listed trees become absolutely necessary to accommodate essential construction activities a permit should be obtained from the Department of Forestry, it will be limited to a minimal number under taken with due consideration for environmental impact. The layout prioritise retaining large and mature trees while ensuring the functional requirements of the proposed roads and infrastructure are met.

- **Impact on traffic flow during construction.** Not all erven are developed therefore when these are developed, construction vehicles would need to haul the excavated soil to a disposal site and provide building material and other supplies (i.e. fuel etc.) to the construction site, most of which could be delivered by truck. Construction vehicles are most likely to pass near erven and disrupt traffic flow (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, exposing the community and workers to dust pollution and affecting their health. Preventative measures should be put in place to prevent excessive dust.

- **Impact of potential construction noise.** Construction machinery creates substantial noise, and this will impact the surrounding community. Constant noise can cause stress and health impacts on nearby residents.

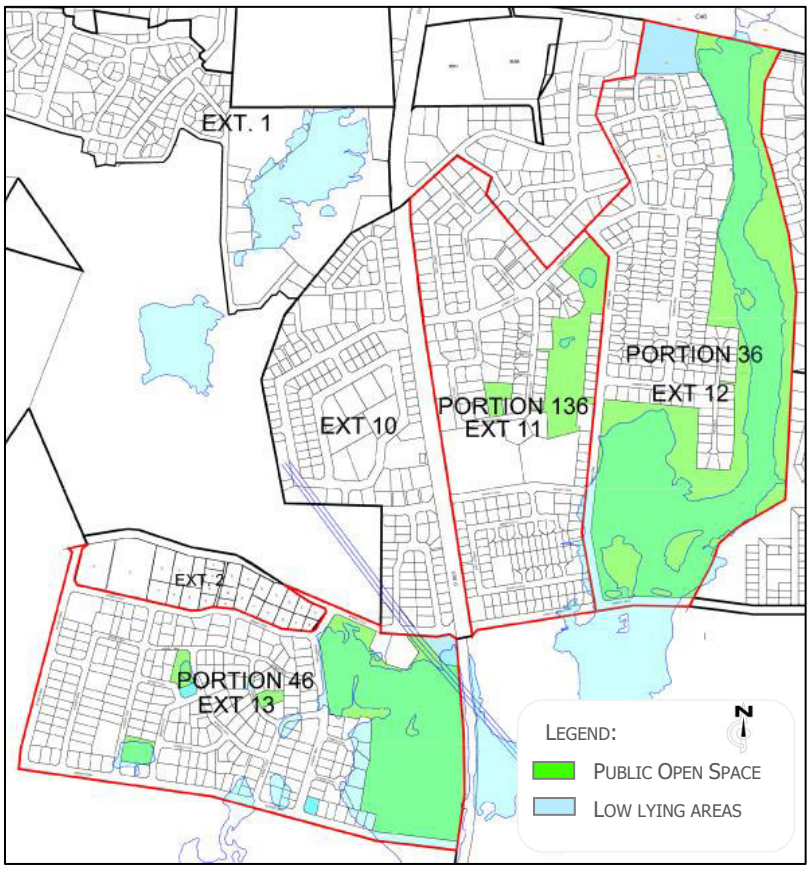
- **Impact of construction waste.** Solid waste is the expected significant source of waste at the construction site. If no waste management plan is in place to address general and hazardous waste disposal, it can lead to water and soil pollution on the site and/or within the water areas.

- **Impact on the health and safety of workers and nearby residents.** Construction activities always have potential risks for workers and nearby residents. Inadequate site management measures can expose workers and residents living near the site to hazardous chemicals, 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 Potential Negative Impacts during Operations

- **Impact of Flooding.** The development will include water areas. The planner prepared the layout to accommodate low-lying areas within public open spaces, some pockets of low lying areas will be filled for development purposes.

Figure 16: Accommodating Flood Areas



- **Impact of Operational Waste.** Solid household waste is the expected source of waste in the township. Suppose the town council has no Waste Management Plan (WMP) or Waste Removal Plan (WRP) to address general and hazardous waste disposal at the development site. It can lead to soil pollution on the site and/or within the water areas.

9.3 DEALING WITH RESIDUAL IMPACTS

9.3.1 Residual Social Impacts

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

Existing structures are accommodated within the layout as residential, general residential, business, and institutional erven. However, there are some structures that are within the road reserve. In all the cases where structures will be removed, the owners will be compensated as per the Cabinet Compensation Policy Guidelines for Communal land provisions by the Oshakati Town Council. Permanent structures will be compensated, while temporary structures will be moved into the surveyed erven.

9.3.2 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. This will be limited; methods to limit it are contained in the Environmental Management Plan (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 included in the EMP provisions.
- As mentioned before, solid waste is the expected source of waste at the construction site. Mitigation methods are contained in the EMP regarding a WMP for the construction site.
- During the construction phase, there will be a potential impact on the workers' health and safety due to their work environment. This will be limited, and methods to restrict it are contained in the EMP.
- Accommodating the trees within the development site: As this is a brownfield development with pre-existing structures, the layout has been carefully planned to ensure minimal impact existing trees. The design integrates trees into individual erven,

road reserves, and public open space where feasible. Given the presence of existing infrastructure, the necessity for tree removal is expected to be minimal.

- While every effort has been made to preserve existing trees, it is acknowledged that some may require removal where unavoidable. In such instances, a comprehensive Tree Management Plan (TMP) will be developed and implemented prior to the commencement of construction activities.

- Solid household waste is the expected source of waste in the new townships. Mitigation methods are contained in the EMP regarding the removal of waste within Oshakati.

10 SUMMARY AND APPLICATION

10.1 PROJECT IMPACTS, AVOIDANCE MEASURES AND RESIDUAL IMPACTS

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

STIMULATE THE HEALTH AND WELLNESS OF THE COMMUNITY:			**THE DEVELOPMENT:** Provide that all services will be on the higher road reserves. Provide a closed system sewer system, which will prevent pollution during flooding. Provide for pedestrian infrastructure.	
POTENTIAL IMPACT:	**MEASURES:**			**RESIDUAL IMPACTS:**
	AVOIDANCE:	**MITIGATION:**	**ENHANCEMENT:**	
POTENTIAL REMOVAL OF EXISTING TREES:	Avoid the removal of existing trees.	The EMP mitigation measures for protecting large trees on the site include: • Trees should be accommodated within individual erven or the road reserves. • A Tree Management plan needs to be compiled before the development commences. The timeline for the potential impact is short term, and the responsibility lies with the planner and contractor.		*The proposed layout has been constructed and 95% is developed. Therefore, there will be a minimal impact on trees.*

POTENTIAL DUST AND NOISE ON THE CONSTRUCTION SITE:	Avoid dust and noise during the construction phase.	The EMP mitigation measures for **Dust:** • No removal of vegetation or soil on the site except where necessary during the construction phase. **Noise:** • Construction work will be restricted between 07h00 and 18h00. The timeline for the potential impact is short-term, and the responsibility lies with the contractor and the Oshakati Town Council.		*Not all the dust and noise can be prevented.*
POTENTIAL IN AN INCREASE IN TRAFFIC DURING THE CONSTRUCTION PHASE:	Avoid uncontrolled increase in traffic during the construction phase.	The EMP mitigation measures for traffic at the site include: • **Traffic** during the construction phase will be restricted between 07h00 and 18h00. The timeline for the potential impact is short-term, and the responsibility lies with the contractor and the Oshakati Town Council.		*An increase in traffic can be managed, although the increase in traffic will still have a potential impact on residents.*
HEALTH AND SAFETY OF WORKERS:	Avoid health and safety impacts on workers during the construction phase.	The EMP mitigation measures for the health and safety of workers at the site include: • Construction practices and safety procedures need to be applied. The timeline for the potential impact is short-term, and the responsibility lies with the contractor.		*Not all the health and safety aspects of the workers can be prevented.*

FLOODING:	Avoid flood risk.	The planner accommodated majority of the potential flood prone areas within public open space. Management of the public open space needs to include maintenance of the public space during the operational phase. The catchment areas located on some residential erven will be filled. The potential impact timeline is long-term, and the responsibility lies with the Oshakati Town Council.		*Not all impacts as a result of flooding can be prevented.*
WASTE MANAGEMENT:	Avoid pollution as a result of no waste management.	The EMP mitigation measures for the waste on the construction site and during operations include: • During the construction phase, a waste management plan should be used on the site. • The townships need to be included in the Oshakati Town Council's waste management system or program during the operational phase. The potential impact timeline is short-term during construction and long-term during operations. The responsibility lies with the contractor and the Oshakati Town Council.		*Not all pollution can be prevented*

11 APPLICATION FOR ENVIRONMENTAL CLEARANCE

Based on the scoping study findings, the formalisation of Oshakati Extension 11-13 is anticipated to generate significant positive socio-economic benefits, including the provision of serviced erven, security of tenure, and stimulation of local economic activity.

Potential negative impacts such as dust, noise, traffic disruptions, vegetation loss, waste generation, and localised flood risk have been identified. Where possible, avoidance measures have been incorporated into the township layout, while additional mitigation measures will be implemented through the Environmental Management Plan (Annexure 6). Residual impacts are expected to be of low to moderate significance and are considered manageable under the provisions of the EMP.

The proposed development therefore meets the requirements of the Environmental Management Act (No. 7 of 2007) and its Regulations, specifically Articles 33 and 34, which provide for the granting of Environmental Clearance based on a Scoping Report.

It is recommended that the Environmental Commissioner issues an Environmental Clearance Certificate (ECC) for the project, subject to compliance with the Environmental Management Plan and applicable permitting requirements.