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ENVIRONMENTAL SCOPING REPORT

APPLICATION FOR ENVIRONMENTAL CLEARANCE:

REZONING OF ERF RE/5144, ONDANGWA EXTENSION 25 FROM
"SINGLE RESIDENTIAL" WITH A DENSITY OF 1:350M2 TO "BUSINESS"
WITH A BULK OF 1.0;

TABLE OF CONTENTS

1 APPOINTMENT 1

2 INTORODCTION AND BACKGROUND 1

2.1 HISTORICAL DEVELOPMENT CONTEXT 1

2.2 URBAN DEVELOPMENT TRENDS IN THE AREA 2

2.3 IMPERATIVES FOR THE PROPOSED REZONING 2

2.3.1 URBAN LAND USE OPTIMIZATION 2

2.3.2 LOCAL ECONOMIC DEVELOPMENT 2

2.3.3 ADDITIONAL RESIDENTIAL ACCOMMODATION 2

2.3.4 COMPATIBILITY WITH EXISTING URBAN INFRASTRUCTURE 3

2.4 SITE CONTEXTUAL ANALYSIS 3

3 NATURE OF THE ACTIVITY 4

3.1 REGULATORY CONTEXT 4

3.2 IMPACT MANAGEMENT PROCESS 4

4 PURPOSE OF THE REPORT 5

5 LEGISLATION 6

6 METHODOLOGY 9

6.1 TOPOGRAPHY AND SITE INFORMATION 9

6.2 SOCIAL RECEIVING ENVIRONMENT 10

6.3 NATURAL RECEIVING ENVIRONMENT 10

6.4 SITE VISITS 10

7 DESCRIPTION OF THE SITE 11

7.1 SETTING THE URBAN CONTEXT 11

7.2 EXISTING STATUS AND LAND USE ON SITE 14

7.3 ACCESS, SERVICES AND INFRASTRUCTURE 15

7.4	TOPOGRAPHY	15
7.5	THE NATURAL ENVIRONMENT	17
7.5.1	CLIMATIC CONDITIONS	17
7.5.2	HABITAT CHARACTERISTICS	18
7.5.3	HYDROLOGICAL SYSTEMS	18
7.5.4	PROTECTED AREAS STATUS	18
7.5.6	ENVIRONMENTAL SENSITIVITY ASSESSMENT	18
7.5.7	SUMMARY OF POTENTIAL ENVIRONMENTAL SENSITIVITIES AND IMPACT	19
8	DESCRIPTION OF THE RECEIVING ENVIRONMENT	19
8.1	THE SOCIO-ECONOMIC ENVIRONMENT	19
8.2	ECONOMIC LANDSCAPE.....	19
8.3	SOCIAL INFRASTRUCTURE.....	20
8.4	DEVELOPMENT CHALLENGES	20
8.5	SUMMARY OF SOCIO-ECONOMIC CHARACTERISTICS.....	21
9	DEVELOPMENT INTENTION	21
9.1	DETAIL OF THE REZONING, PLAN, TABLE AND DESCRIPTION DETAIL	21
9.2	SUMMARY OF POTENTIAL IMPACTS.....	22
9.3	LAYOUT STRATEGIES.....	23
9.3.1	LAYOUT STRATEGIES DEALING WITH POSITIVE ENVIRONMENTAL IMPACTS	23
9.4	RESIDUAL PROJECT IMPACTS.....	23
9.4.1	RESIDUAL SOCIAL IMPACTS.....	23
9.4.2	RESIDUAL ENVIRONMENTAL IMPACT.....	23
10	SUMMARY AND APPLICATION.....	24
10.1	SUMMARY OF POTENTIAL PROJECT IMPACTS, AVOIDANCE MEASURES AND RESIDUAL IMPACTS	24
11	SUMMARY AND APPLICATION.....	28
12	REFERENCES	29

ANNEXURES

ANNEXURE 1:	APPLICATION FORM
ANNEXURE 2:	CURRICULUM VITAE OF CONSULTANT
ANNEXURE 3:	CONTACT DETAIL OF PROPONENT
ANNEXURE 4:	CONTACT DETAIL OF CONSULTANT
ANNEXURE 5:	ID/PASSPORT
ANNEXURE 6:	PROOF OF PUBLIC CONSULTATION
ANNEXURE 7:	ENVIRONMENTAL MANAGEMENT PLAN

APPENDIXES

APPENDIX A:	APPROVAL LETTER
APPENDIX B:	LOCALITY MAP
APPENDIX C:	PROPOSED LAYOUT
APPENDIX D:	BID (BACKGROUND INFORMATION DOCUMENT) DOCUMENT
APPENDIX E:	STAKEHOLDERS LIST

1 APPOINTMENT

SWIB Trading CC – Town and Regional Planners has been appointed to prepare and submit this Environmental Clearance application for the proposed rezoning of Erf RE/5144 by the owner of the property Mr Nikodemus Amadhila, located within Ondangwa Extension 25.

- **REZONING OF ERF RE/5144, ONDANGWA EXTENSION 25, WITHIN THE TOWN AND TOWNLANDS OF ONDANGWA NO. 880, FROM “SINGLE RESIDENTIAL” TO “BUSINESS”.**

The Environmental Screening Report has been prepared in support of the rezoning application and the proposed development of commercial and residential activities on the property.

The relevant documentation is included in support of this application to the Ministry of Environment, Forestry and Tourism, submitted to the Environmental Commissioner in accordance with the Environmental Management Act, 2007 (Act No. 7 of 2007).

Supporting documentation and relevant plans are attached as appendices to this report.

2 INTRODUCTION AND BACKGROUND

2.1 HISTORICAL DEVELOPMENT CONTEXT

Erf RE/5144 in Ondangwa Extension 25 exemplifies the organic evolution of a neighborhood that has gradually transformed from an informal settlement into a vibrant mixed-use area. Although the official zoning still designates the erf for single residential use, the surrounding context reflects a different reality: a coexistence of home-based businesses, small-scale commercial enterprises, and residential dwellings.

The property, measuring 1,055 m², currently hosts a single residential dwelling, a remnant from the formalization of Extension 25. Like many neighboring erven, its legal zoning has not kept pace with actual land use. Adjacent properties routinely accommodate spaza shops, auto repair services, and other micro-enterprises that are essential to the local economy.

Mr. Amadhila's proposal seeks to formally rezone the property for business use with residential apartments, thereby aligning its legal status with its functional character. The proposed development will combine a carwash facility with rental apartments, reflecting the area's existing pattern of mixed residential-commercial use while introducing proper planning oversight and infrastructure that were absent during its informal settlement phase.

The carwash component addresses a documented local need, as residents currently travel to other neighborhoods for such services. The rental apartments provide quality housing on a manageable scale, requiring minimal additional municipal services—a key consideration given the area's informal legacy.

At 1,055 m², the erf can comfortably accommodate both uses while maintaining the human scale characteristic of Extension 25's development pattern. This modest, dual-use approach respects the neighborhood's origins and contributes to a sustainable urban transition. The rezoning proposal is being processed through the relevant planning procedures and is accompanied by this Environmental Screening Report prepared in accordance with the Environmental

Management Act, 2007 (Act No. 7 of 2007), which requires that potential environmental impacts of listed activities be assessed prior to implementation.

2.2 URBAN DEVELOPMENT TRENDS IN THE AREA

The surrounding area of Erf RE/5144, Ondangwa Extension 25, has experienced gradual urban development over the past decade as the town of Ondangwa continues to expand. The extension forms part of the town's established residential neighbourhoods that are supported by existing municipal infrastructure including road access, water supply, sewer reticulation and electricity services.

In recent years, certain properties within similar residential extensions have gradually transitioned toward mixed-use land utilization, particularly along access roads and areas that experience higher traffic volumes. These changes are largely driven by increasing demand for small-scale commercial services, rental accommodation, and local employment opportunities within close proximity to residential communities.

The existing settlement pattern within Extension 25 remains predominantly residential; however, a number of small-scale commercial and service-related activities have emerged within nearby areas of Ondangwa. These include small retail outlets, service workshops, and informal businesses that provide essential services to surrounding communities.

The proximity of the site to important urban infrastructure and economic activity areas contributes to the suitability of the property for limited commercial development. As a result, the proposed rezoning of Erf RE/5144 seeks to align land use with evolving urban development patterns while maintaining compatibility with surrounding land uses.

2.3 IMPERATIVES FOR THE PROPOSED REZONING

The proposal to rezone **Erf RE/5144 from "Single Residential" to "Business"** is informed by several planning and socio-economic considerations.

2.3.1 *Urban Land Use Optimization*

The proposed rezoning seeks to promote more efficient land use within the existing urban area by allowing a combination of commercial and residential activities on the property. Mixed-use development is widely recognized as an effective planning approach that supports economic activity while maximizing the use of serviced urban land.

2.3.2 *Local Economic Development*

The proposed development, which includes a **car wash facility**, is expected to contribute to small-scale economic development by creating employment opportunities and providing services to residents and motorists within the surrounding area. Such developments support the local economy and reduce the need for residents to travel longer distances to access services.

2.3.3 *Additional Residential Accommodation*

The inclusion of **residential flats** within the proposed development responds to the growing demand for rental accommodation within Ondangwa. Higher-density residential units within

existing serviced areas help address housing demand while reducing pressure for outward urban expansion.

2.3.4 Compatibility with Existing Urban Infrastructure

The site is located within an already developed urban environment where municipal services are available. The proposed development is therefore expected to integrate with the existing infrastructure network without requiring major additional infrastructure investments.

2.4 SITE CONTEXTUAL ANALYSIS

The subject property, Erf RE/5144 located in Ondangwa Extension 25, forms part of the established urban area of Ondangwa within the Town and Townlands of Ondangwa No. 880. The erf is situated within a predominantly residential neighbourhood characterized by single residential dwellings and supporting urban infrastructure.

The property is approximately 1055 m² in extent and benefits from its location within a serviced urban environment where municipal infrastructure such as road access, water supply, sewer reticulation and electricity are available. The surrounding area is generally well developed and forms part of the town's existing residential settlement pattern.

From a spatial planning perspective, the site is located within an area that has gradually experienced increased urban activity and service demand. Its accessibility and proximity to surrounding residential neighbourhoods make it suitable for small-scale commercial activities that provide services to the local community.

In terms of environmental characteristics, the site is located within a fully transformed urban environment, with no known environmentally sensitive habitats, protected vegetation, or conservation areas present on the property. The terrain is generally flat, which is typical of the broader Oshana landscape, and is considered suitable for urban development.

Soil conditions within the area generally consist of sandy soils typical of northern Namibia, which are commonly used for standard building construction subject to appropriate foundation design. No known contamination or environmentally hazardous land uses have been recorded on the property.

Overall, the site is considered suitable for the proposed development, as it is located within an already developed urban environment where the potential environmental impacts are expected to be limited and manageable through appropriate mitigation measures.



Figure 1: Locality of Ondangwa at Northern Namibia context

3 NATURE OF THE ACTIVITY

3.1 REGULATORY CONTEXT

In accordance with the **Environmental Management Act, 2007 (Act No. 7 of 2007)** and the Environmental Impact Assessment Regulations of 2012 (Government Notice No. 30 of 2012), certain land use changes and development activities may require environmental screening and approval prior to implementation.

The proposed development involves the **rezoning of Erf RE/5144, Ondangwa Extension 25, from “Single Residential” to “Business”** in order to allow the establishment of a mixed-use development consisting of a **car wash facility and residential flats**.

Although the proposed development is relatively small in scale and located within an already developed urban area, the rezoning and associated commercial activities may fall within the scope of listed activities relating to **land use changes and commercial development** under the EIA Regulations. For this reason, this Environmental Screening Report has been prepared to support an application for an Environmental Clearance Certificate.

The application is therefore submitted to the Ministry of Environment, Forestry and Tourism through the Office of the Environmental Commissioner for review and consideration.

3.2 IMPACT MANAGEMENT PROCESS

Although the proposed development is located within an existing urban environment and is expected to have limited environmental impacts, appropriate environmental management measures will be implemented to minimize potential impacts associated with the construction and operational phases.

These measures may include:

Water Management

- Proper drainage and wastewater management for the car wash facility.
- Connection to the municipal sewer system to prevent contamination of surrounding areas.

Waste Management

- Appropriate collection and disposal of solid waste generated during construction and operation.

Noise and Dust Control

- Limiting construction activities to reasonable daytime hours.
- Implementing dust control measures during construction.

Traffic and Safety

- Provision of adequate parking and safe vehicle access to the site.

These mitigation measures will help ensure that the proposed development integrates responsibly within the surrounding residential environment.

4 PURPOSE OF THE REPORT

This Environmental Screening Report has been prepared in accordance with the requirements of the Environmental Management Act, 2007 (Act No. 7 of 2007) and serves as the formal submission to the Ministry of Environment, Forestry and Tourism for the purpose of obtaining an Environmental Clearance Certificate.

The main objectives of this report are to:

1. Facilitate Regulatory Review

Provide sufficient information to enable the Environmental Commissioner to determine whether the proposed development requires further environmental assessment or may proceed with an Environmental Clearance Certificate.

2. Assess Potential Environmental Impacts

Identify potential environmental impacts associated with the proposed rezoning and development of the property.

3. Recommend Mitigation Measures

Propose appropriate environmental management measures that will minimize or prevent potential impacts during the construction and operational phases of the development.

4. Support Sustainable Urban Development

Ensure that the proposed development is implemented in a manner that is environmentally responsible and compatible with the surrounding urban environment.

5 LEGISLATION

The following table provides the legislative framework within which the applicant 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: (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>Environmental Management Act No. 7 of 2007:</p> <p>EIA Regulation (EIAR) GN 57/2007 (GG 3212): Prescribes the procedures to be followed for authorisation of the project (i.e. Environmental clearance certificate).</p> <p>In terms of Section 10.1(b), 10.2(a), for environmental clearance for the construction of a public road,</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>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> Section 92 (1), A person may not engage in any construction work or other 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 watercourses and floodplains 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>Pollution Control and Waste Management Bill:</p> <p>This bill aims to promote sustainable development and to prevent and regulate the discharge of pollutants into the environment.</p>	<p>Asses the not of the intervention causing the discharge of pollution into the environment.</p>
<p>LABOUR:</p>	<p>Labour Act. 11 of 2007:</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>NORTHERN REGION. FLOOD RISK MANAGEMENT PLAN:</p>	<p>Northern Region. Flood Risk Management Plan: Flood Risk Management Plan of 2011</p> <p>The Management Plan provides control measures for future planning within the northern regions.</p>	<p>Asses to what extent the proposed intervention complies with the provision of the plan.</p>
<p>FORESTRY:</p>	<p>Forest Act. 12 of 2001</p> <p>Protected tree species and any vegetation within 100m from a watercourse may not be removed without a permit from the Ministry of Agriculture, Water and Forestry.</p>	<p>Ensure that existing trees are protected.</p>

6 METHODOLOGY

The following methodologies were employed to compile this Environmental Screening Report for the rezoning and proposed mixed-use development on Erf RE/5144, Ondangwa Extension 25:

6.1 TOPOGRAPHY AND SITE INFORMATION

Topographical and site information was collected from secondary sources and direct observations:

- **Secondary data sources:** Existing municipal maps, Ondangwa Town Council property records, and the Ondangwa Local Spatial Development Framework (2020).
- **Site inspections:** Conducted on multiple occasions in 2025 to verify existing site conditions, land use, and access.

The property is located on flat terrain with minimal elevation variation, underlain by stable Kalahari sands, suitable for standard construction. Existing drainage patterns were observed to align naturally with the surrounding stormwater infrastructure.

6.2 SOCIAL RECEIVING ENVIRONMENT

The social context of the site was assessed using a combination of census data, municipal records, and community knowledge:

- **Population dynamics:** Ondangwa Extension 25 is a growing residential area with mixed-use activity along main access roads.
- **Existing land uses:** Observations and consultations confirmed a combination of residential homes, small-scale commercial enterprises, and informal service activities.
- **Community engagement:** Informal discussions with nearby residents and business owners provided insight into local needs, potential benefits, and social sensitivities relevant to the proposed development.

These findings informed the evaluation of potential social impacts associated with the proposed mixed-use development, including housing, employment opportunities, and access to services.

6.3 NATURAL RECEIVING ENVIRONMENT

Ecological and environmental data were collected using **on-site observations** and **review of secondary sources**:

- Climate and ecological context: Data from **Atlas of Namibia (Mendelsohn, 2002)**.
- Biodiversity and vegetation: On-site surveys identified **six mature *Faidherbia albida* trees** within or adjacent to the property. Secondary sources included:
 - Namibia Biodiversity Database (NBD, 2013)
 - Tree Atlas of Namibia (Curtis & Mannheimer, 2005)
 - Southern African Bird Atlas (Harrison et al., 1997)
 - Global Biodiversity Information Facility (GBIF, 2012)

Species records were carefully validated to eliminate improbable or erroneous entries, particularly those incompatible with urban environments or the site's limited footprint.

6.4 SITE VISITS

Multiple site inspections were undertaken to verify conditions and support planning decisions:

- **Frequency:** Monthly/seasonal visits between 2023 and 2025.
- **Focus:** Observed topography, stormwater flow, vegetation, and existing structures on and adjacent to Erf RE/5144.
- **Layout design:** A development layout was prepared in line with **Ondangwa Town Council standards** and the "Red Book" guidelines, considering spatial integration of adjacent structures and local stormwater management



Figure 2: Site Visit 05 August 2025

7 DESCRIPTION OF THE SITE

This section provides a planning and environmental description of Erf RE/5144, Ondangwa Extension 25, including its urban context, existing land use, infrastructure, topography, and other relevant features.

7.1 SETTING THE URBAN CONTEXT

Erf RE/5144 is a **1,055 m² property** located within Ondangwa Extension 25, in the Oshana Region in Registration Division, "B" (Coordinates: -17.923133,15.976364). The site lies within a formally proclaimed residential neighborhood that has gradually evolved into a mixed-use urban area, with both residential and small-scale commercial activities. Erf RE/5144, sits at the heart of a neighbourhood characterized by a mix of land uses and zoning categories. This area, commonly referred to as Ondiyala, includes properties zoned for various purposes such as business, residential (both single and general), institutional, and local authority functions.

- **Business Properties:** Several neighbouring properties (e.g., Erf 5196, 5197, 5198, 5199, 5200, 5195, 5202, 5203, 5241, 5240, 5239 etc) are already zoned business. These properties are engaged in diverse commercial activities, establishing the area as a thriving business hub.
- **Single Residential Properties:** There are single residential properties within the vicinity, such as Erf 5143, 5142, 5191, 5190, 5164, 5163, 5145 etc. These properties have a been a new project by the National Housing Enterprise (NHE).

- **General Residential Properties:** Adjacent properties zoned for general residential use include Erf 5005, 5006, 5016, 5506 etc. While residential, these even accommodate higher-density living and complement the commercial nature of the surrounding business properties, contributing to the mixed-use profile of the area.
- **Local Authority and Institutional Zoning:** Other significant land uses in the vicinity include local authority properties (Erf 5238,5327) and institutional properties (Erf 5383,5394,5358,5386, 5387,5388). These properties house public services, contributing to the administrative and community functions of the town.
- **Accommodation Zoning:** Other significant land uses in the vicinity include accommodation properties (Erf 5007, 5008, 5009 and 5201) these properties also aim to provide accommodation at a higher density for tourist and the locals via guest houses and backpackers.



FIGURE 3: ZONING OF THE SURROUNDING AREA

Erf RE/5144 is located within Ondangwa Extension 25, a neighborhood that originated as an informal settlement and has since undergone formal upgrading. This history has resulted in an organic mix of land uses, where home-based businesses, commercial activities, and residential development coexist - a pattern that persists despite the area's formalization. While the upgraded portion now follows structured planning with designated mixed-use zones, the neighborhood retains its vibrant, organically developed character, particularly in its established commercial sections.

The proposed rezoning from single residential to business use for Erf RE/5144 aligns perfectly with this context. It respects the area's dual nature as both a planned upgrade and a formerly informal settlement by supporting the kind of mixed-use development that has proven successful in similar transitional neighborhoods. The change would formalize what already occurs naturally in much of Extension 25, where residential and commercial uses productively coexist. Most importantly, the rezoning represents a thoughtful approach to urban development in upgraded areas - one that

acknowledges their informal origins while guiding them toward sustainable, organized growth that meets community needs.



Figure 4: Surrounding Developments Within The Immediate Surroundings Of Erf Re/5144, Ondangwa Extension 25.

The broader Extension 25 area reflects the urban growth patterns of Ondangwa, where informal settlement origins have given way to structured developments, while organic mixed-use activity continues along key streets. This urban character informs the proposed rezoning from Single Residential to Business, allowing for a car wash facility and residential flats in alignment with existing neighborhood dynamics.

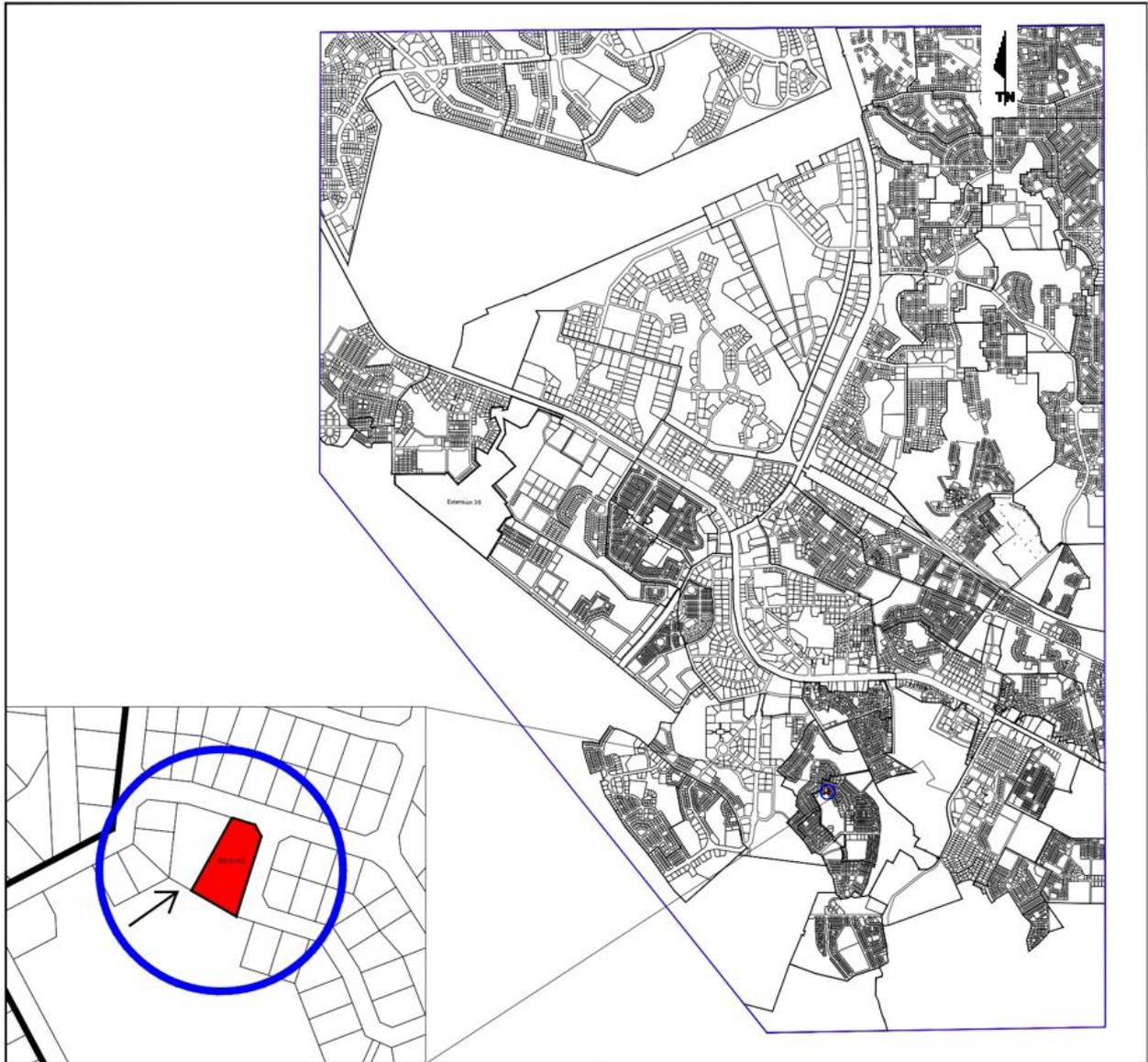


Figure 5: Locality of Erf RE/5144 within the Ondangwa Townlands

ERF NUMBER	LAND USE	ERF SIZE(m ²)
RE/5144	Single Residential	1055

7.2 EXISTING STATUS AND LAND USE ON SITE

Currently, Erf RE/5144 hosts a single residential structure. The surrounding neighborhood has a combination of low-density residential and small-scale commercial uses, demonstrating an organically evolving mixed-use environment. The rezoning application aims to formalize the property's dual-use potential, optimizing land use and contributing to local economic activity.



Figure 6: Current Land Use On Erf Re/5144, Ondangwa Extension 25.

7.3 ACCESS, SERVICES AND INFRASTRUCTURE

The property has access to all municipal services, including:

- **Water:** Portable water network provided by Ondangwa Town Council.
- **Sewerage:** Connected to the municipal sewer network; upgrades may be required for the proposed development.
- **Electricity:** Supplied by Nored via existing low-voltage networks; infrastructure improvements will be addressed through betterment fees to Council.
- **Road access:** Direct access from Adamite Street; no additional access points are required.

7.4 TOPOGRAPHY

7.4.1 REGIONAL GEOMORPHOLOGICAL CONTEXT

Erf RE/5144, Ondangwa Extension 25, lies within the central sector of the Cuvelai-Etосha Basin, a transitional zone of the broader Oshana drainage system. This area is characterized by sandy loam soils, moderate gradients, and seasonal water flow, which are typical for Ondangwa's urban landscape. The basin narrows from 130 km in Angola to an 8–12 km wide corridor around Ondangwa, creating a gently sloping terrain suitable for urban development.

Comparative Basin Characteristics – Ondangwa Sector

Feature	Cuvelai Delta	Ondangwa Sector
Width	130 km	8–12 km
Gradient	0.02%	0.05–0.1%
Soil Type	Alluvial clays	Sandy loams
Flood Duration	3–5 months	1–3 months

Topographic Zones in Ondangwa Sector

Zone	Elevation (m AMSL)	Flood Risk	Key Characteristics
Northern	938–940	High (1:5 yr)	Clay soils, reed-dominated vegetation

Central	940–942	Moderate (1:1)	Sandy loams, seasonal wetlands
Southern	942–945	Low	Laterite gravels, stable for development

Hydrological Considerations

- Interconnected Oshanas with gentle gradients (0.02–0.1%).
- Seasonal water fluctuations up to 1.2 m depth.
- Natural infiltration rates of 15–25 mm/hr.

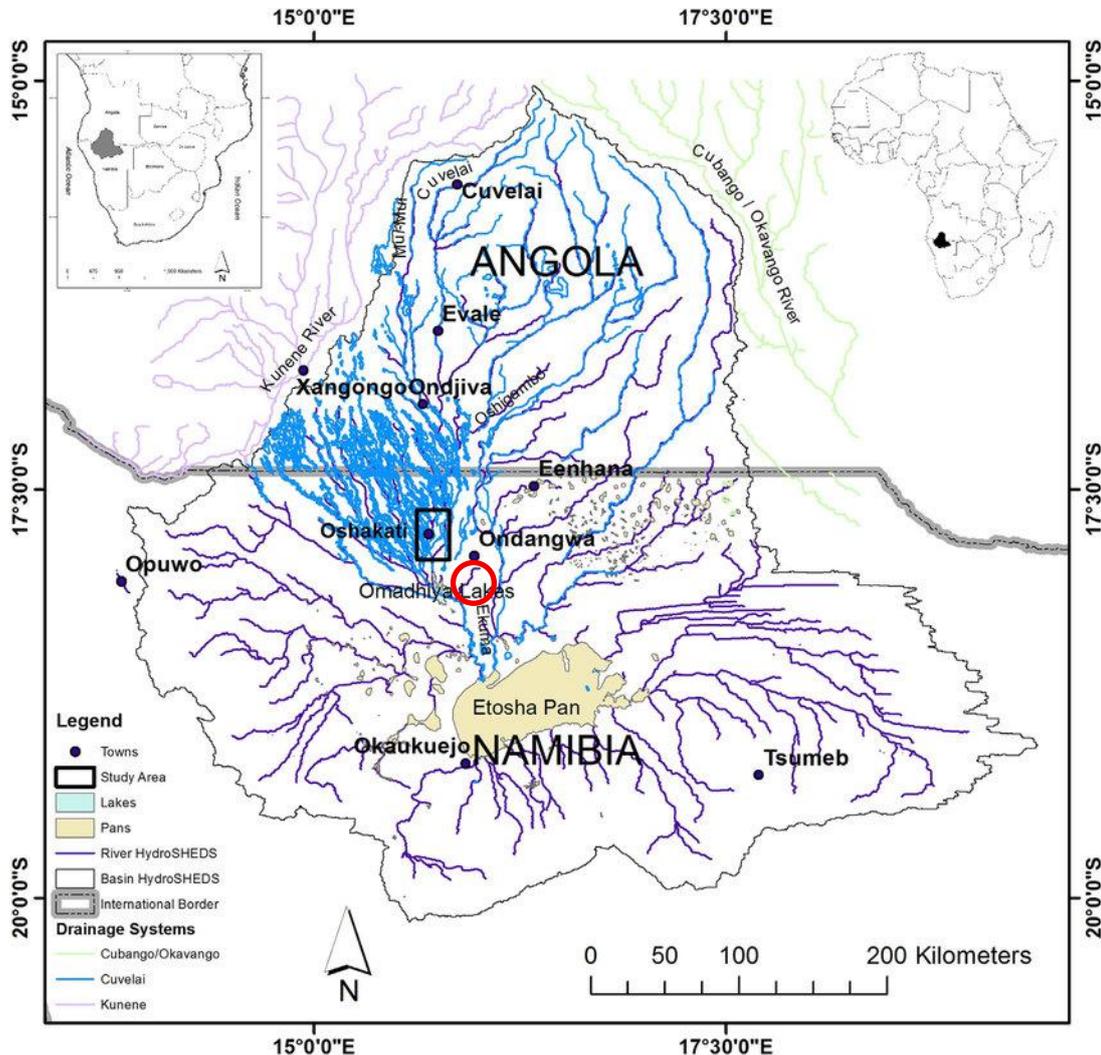


Figure 7: Cuvelai Basin

7.4.1 REGIONAL GEOMORPHOLOGICAL CONTEXT

Given the 1,055 m² site area and its flat topography, the proposed mixed-use development will integrate stormwater management and minor elevation adjustments to ensure functional and resilient infrastructure:

Flood Mitigation Measures

- Public Open Spaces and Landscaping**
 - Retention of any naturally occurring vegetation.
 - Minor landscaping to act as local retention basins if required.

2. Engineered Solutions

- o Floor levels of structures elevated at least 0.5 m above 1:50 year floodline.
- o Stormwater swales with a minimum 0.3% gradient.
- o Culverts and drainage points sized to accommodate 25-year storm events.

Historical Performance

- Satellite imagery and local flood records indicate that the site remains dry during seasonal inundation, confirming suitability for both the carwash and residential flats.
- Existing drainage patterns allow for efficient runoff to nearby public open spaces, without altering natural flow paths.

The site's stable sandy loam soils, flat terrain, and minor flood risk make it appropriate for the proposed rezoning and development. Stormwater management and landscaping measures ensure compliance with urban planning and environmental standards while preserving the functional ecology of the surrounding area.

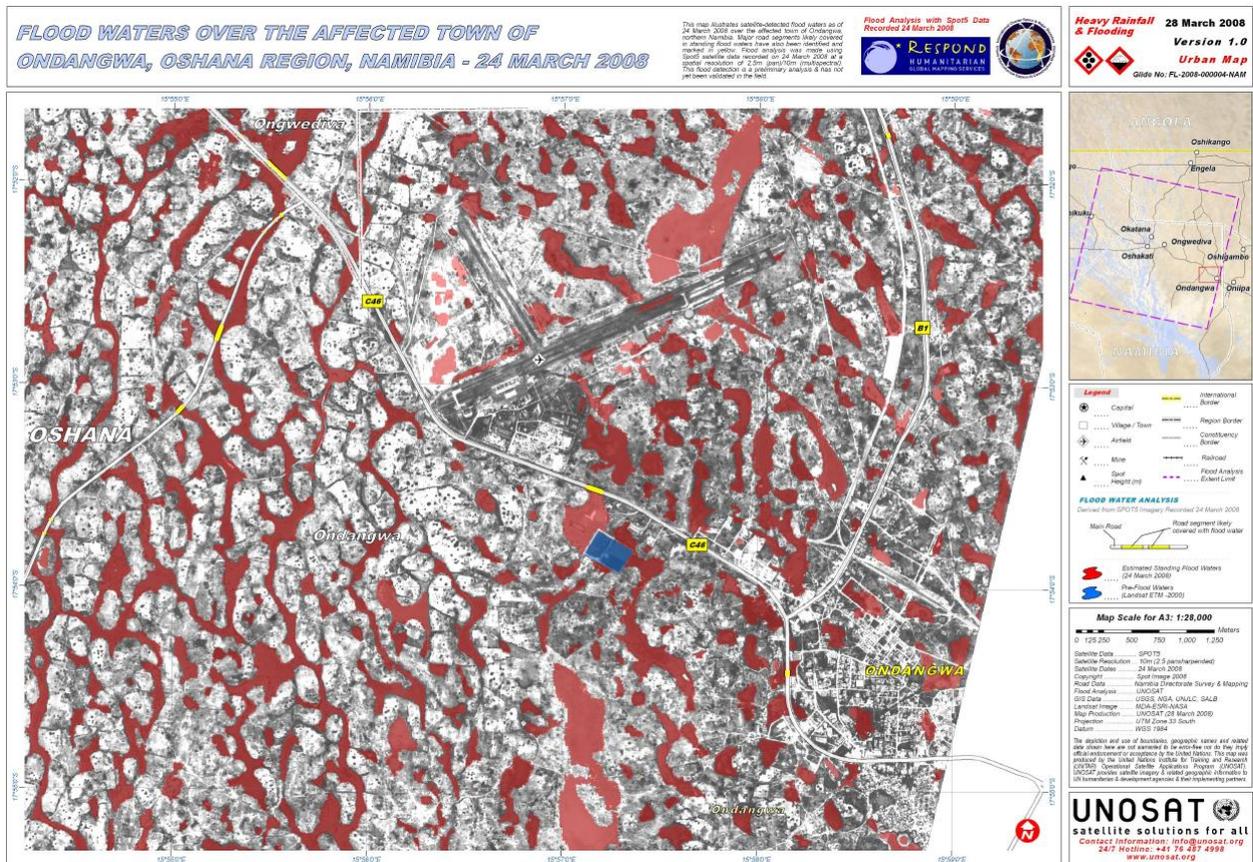


Figure 8: Ondangwa 2008 Flood study

7.5 THE NATURAL ENVIRONMENT

7.5.1 Climatic Conditions

Erf RE/5144 experiences a **semi-arid climate**, typical of the Cuvelai Basin in northern Namibia, characterized by distinct wet and dry seasons:

Parameter	Jan–Apr	May–Sep	Oct–Dec	Source
Temperature	24–34°C	17–28°C	22–32°C	Namibia Meteorological Service
Rainfall	85% of annual	<1%	14%	Mendelsohn 2002
Wind Speed	8–10 km/h	3–5 km/h	5–7 km/h	Oshana Regional Council

Key Observations:

- Annual rainfall averages 300–400 mm, mostly falling between January and April.
- Evaporation rates are approximately 7 times higher than precipitation annually.
- Prevailing ENE winds bring moisture from Angola during the rainy season.

7.5.2 Habitat Characteristics

The site exhibits three modified habitat types due to historical land use and urban development pressures:

- 1. Anthropogenic Grassland (15%)**
 - Dominated by disturbance-tolerant grasses (*Eragrostis* spp.).
 - Moderate grazing pressure (~2.7 LSU/ha).
 - One camelthorn tree which is not protected.
- 2. Seasonal Wetlands (5%)**
 - Ephemeral oshanas supporting *Cyperus* spp.
 - Flood duration: 2–4 months annually.
 - Important habitat for migratory birds.
- 3. Residential Footprint (15%)**
 - Existing Single Residential Structure.

Conservation Status:

- No sensitive ecosystems remain within the site.

7.5.3 Hydrological Systems

- Influenced by the Cuvelai drainage network and seasonal flooding from Angolan highlands.
- Shallow groundwater at <5 m depth, annually recharged.
- one small oshanas borders the site about 100m away.

Water Quality (2023 Testing):

- pH: 6.8–7.2
- TDS: 320–450 mg/L

7.5.4 Protected Areas Status

- Erf RE/5144 lies outside national parks, conservancies, and proclaimed heritage sites.
- No critical biodiversity areas are affected (MET Screening 2023).

7.5.6 Environmental Sensitivity Assessment

- Low Sensitivity Areas (5%): Suitable for development with standard mitigation measures.

Recommendation:

- Development may proceed under EMA Sections 33–34.
- Implementation of the attached Environmental Management Plan (Annexure 7) will mitigate residual impacts.
- All measures align with Namibia's NDP5 environmental targets.

7.5.7 Summary of Potential Environmental Sensitivities and Impact

- Screening identified no significant biodiversity or ecological issues that require further investigation.
- The proposed development, comprising a carwash and residential flats, is compatible with regional ecological conditions.
- Development can proceed without the need for full-scale Environmental Impact Assessment, provided recommended mitigation measures are implemented.

8 DESCRIPTION OF THE RECEIVING ENVIRONMENT

8.1 THE SOCIO-ECONOMIC ENVIRONMENT

Erf RE/5144 is situated within Ondangwa Extension 25, a well-established residential area experiencing ongoing urbanization pressures. Ondangwa functions as the commercial and administrative hub of the Oshana Region, providing services and economic opportunities to the surrounding rural hinterlands.

Key Demographic Trends (2025):

Indicator	Ondangwa Constituency	Oshana Region	National
Annual Population Growth	2.1%	1.2%	1.4%
Urbanization Level	48%	45%	33%
Dependency Ratio	41%	38%	45%

- The town has seen a steady increase in urban population, with the Ondangwa Extension 25 area reflecting densification and growing demand for both residential and commercial services.
- Household sizes average 4.1 persons, with 53% female-headed households, higher than the national average.
- Youth population under 15 years constitutes 38%, indicating a significant demand for education, housing, and future employment.

8.2 ECONOMIC LANDSCAPE

The local economy reflects the interplay of formal employment, informal sector growth, and service-oriented livelihoods:

1. Labor Market Shifts

- Formal employment stands at 58%, slightly above the regional average of 55%.
- Informal sector participation is around 27%, including small-scale retail, informal repairs, and service activities.
- Youth unemployment among 15–35-year-olds remains high at **34%** (NSA 2022).

2. Income Sources

- Wage employment: 47%
- Agricultural and home-based activities: 18%
- Social grants: 12%

3. Poverty Indicators

- Approximately 30% of households are below the national poverty line.
- Gini coefficient in Oshana is 0.58, slightly below the national 0.59, indicating persistent income inequality.

8.3 SOCIAL INFRASTRUCTURE

Service provision in Ondangwa Extension 25 reflects improvements relative to broader regional trends:

Service	Ondangwa Extension 25	Oshana Region	National
Piped Water Access	92%	88%	80%
Electricity Connections	67%	59%	32%
Improved Sanitation	58%	50%	49%
Healthcare Access	99% within 10 km	89%	80%
Adult Literacy	89%	85%	89%
Learner-Teacher Ratio	32:1 (primary)	35:1	40:1

- Access to services has improved over the past decade, but demand continues to outpace supply, particularly for electricity and sanitation.
- Educational and healthcare facilities are available within 1–3 km, supporting future residential expansion.

8.4 DEVELOPMENT CHALLENGES**8.4.1 Housing Pressures:**

- Average household size exceeds 4 persons.
- Growing demand for medium-density housing and affordable serviced erven.

8.4.2 Health and Education:

- Local facilities manage a higher patient-to-doctor ratio (1:850) than the national average but remain stretched.
- Primary and secondary schools face moderate overcrowding with learner-teacher ratios of 32:1.

8.4.3 Economic Opportunities:

- Limited formal employment drives residents toward informal sector livelihoods.
- There is a need for mixed-use developments to generate local employment and support small businesses.

8.5 SUMMARY OF SOCIO-ECONOMIC CHARACTERISTICS

The socio-economic profile of Ondangwa Extension 25 highlights the following key points for the proposed development:

1. Population Dynamics

- Steady growth, with 32,200 residents projected in 2025.
- Urban population concentration of 48%, above national average.

2. Household Structure

- 53% female-headed households.
- Average household size: 4.1 persons.
- Youth-dominated population: 38% under 15 years.

3. Employment and Income

- 58% formal employment; 27% informal sector participation.
- Wage employment remains the main income source (47%), followed by social grants and small-scale agriculture.

4. Service Access

- Water: 92%
- Electricity: 67%
- Sanitation: 58%
- Healthcare access: 99% within 10 km

5. Education

- Adult literacy: 89%
- Primary school learner-teacher ratio: 32:1

Conclusion:

Erf RE/5144 is situated within a socio-economically active and expanding urban environment. The rezoning and mixed-use development aligns with local needs for affordable housing, small-scale economic activity, and improved service delivery, reinforcing the strategic role of Ondangwa Extension 25 within the town's growth framework.

9 DEVELOPMENT INTENTION

The primary intention of this development is to optimally utilize Erf RE/5144 to support both residential and small-scale commercial activity, in line with the growth dynamics of Ondangwa Extension 25 and the town's broader urban development strategy.

9.1 DETAIL OF THE REZONING, PLAN, TABLE AND DESCRIPTION DETAIL

The purpose of the proposed rezoning is to enable our client to establish their accommodation flats and a carwash within the regulations of the Ondangwa Zoning Scheme.

Rezoning of Erf RE/5144, Ondangwa Extension 25 from its current zoning of "Single Residential" with a density: "1:350m²" to "Business" with a bulk of "1.0" will enable our client operate the intended carwash and flats on the correct zoning.

The proposed rezoning is depicted in table 1 below and in a plan attached as Annexure "B2".

Erf Number	±Area (m ²)	Current Zoning and Density	Proposed Zoning and Bulk
RE/5144	1055 m ²	Single Residential with a density of 1:350m ²	Business with a Bulk of 1.0

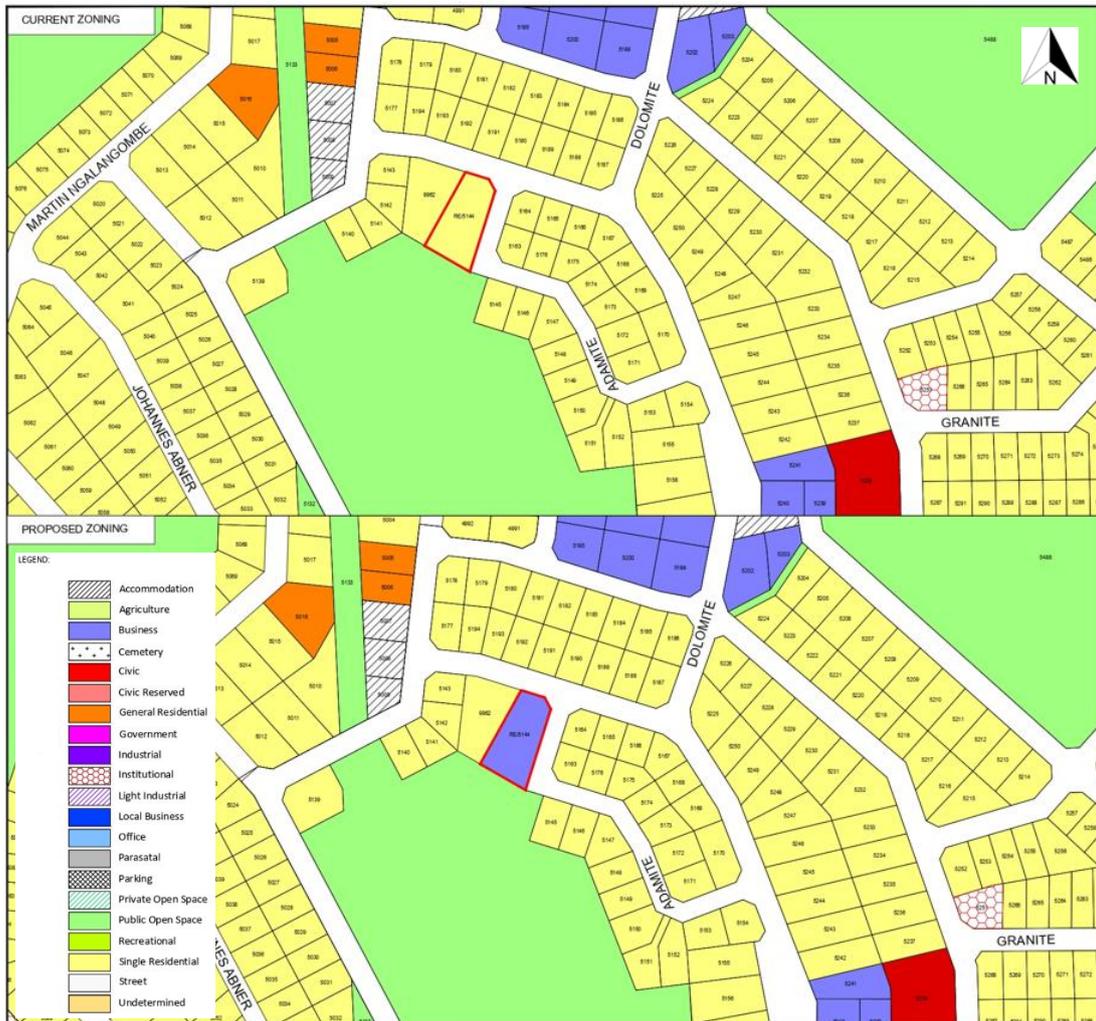


FIGURE 9: REZONING PLAN FOR ERF RE/5144, ONDANGWA EXTENSION 25

9.2 SUMMARY OF POTENTIAL IMPACTS

The proposed development of Erf RE/5144 carries a range of beneficial socio-economic and environmental impacts, as well as some potential adverse effects that require mitigation:

Key Benefits:

- **Economic stimulation:** The establishment of a mixed-use development, including a car wash and residential flats, will create temporary and permanent employment opportunities, fostering local economic growth.
- **Provision of safe, serviced erven:** Residents will benefit from secure tenure, formal municipal services, and improved living conditions.
- **Community wellbeing:** Structured land use and improved service provision contribute to public health, safety, and general wellness.

Potential Impacts:

- **Vegetation removal:** Some trees may need to be cleared, including non-protected species.
- **Dust and noise:** Construction activities may temporarily affect air quality and noise levels.
- **Traffic increase:** The development may increase vehicle movements along local roads.
- **Worker health and safety:** Construction activities require adherence to occupational safety standards.
- **Hydrological impacts:** Wetlands and floodplain areas may be affected if not properly managed.
- **Flooding risk:** Improperly designed stormwater management could exacerbate local flood hazards.

All identified potential impacts will be managed through targeted design measures, monitoring, and mitigation strategies detailed in the layout plan and Environmental Management Plan (EMP).

9.3 LAYOUT STRATEGIES

The layout of Erf RE/5144 has been carefully designed to balance functional land use with environmental and social sensitivities. Key steps included:

- **On-site verification of wetlands and flood-prone areas:** The layout was developed following field surveys conducted during the rainy season, ensuring accurate identification of seasonal wetlands.

9.3.1 LAYOUT STRATEGIES DEALING WITH POSITIVE ENVIRONMENTAL IMPACTS

- **Formalized erven and tenure security:** The project prevents uncontrolled settlement and ensures orderly land use.
- **Service infrastructure:** Implementation of municipal waterborne sewer systems and waste collection reduces potential pollution and supports sustainable living.
- **Local economic development:** Commercial erven provide opportunities for small businesses, generate formal employment, stimulate tax contributions, and strengthen the local economy.

This layout demonstrates a sustainable and pragmatic approach, balancing environmental protection, social needs, and economic growth, while fully leveraging the dry, buildable nature of Erf RE/5144.

9.4 RESIDUAL PROJECT IMPACTS

9.4.1 RESIDUAL SOCIAL IMPACTS

- The existing single residential structure on Erf RE/5144 will be demolished to accommodate the proposed mixed-use development.
- As only one household is affected, social disruption is minimal.

9.4.2 RESIDUAL ENVIRONMENTAL IMPACT

- Vegetation Clearance:** The site contains one Camelthorn tree, which will be preserved within the new layout. No other significant vegetation will be removed.

- **Demolition Impacts:** The demolition of the existing structure will generate dust, noise, and minor debris. Control measures, including dust suppression and debris management, are provided in the Environmental Management Plan (EMP).
- **Construction Impacts:** Construction activities may temporarily increase dust, noise, and traffic on surrounding roads. Mitigation measures, including vehicle management and controlled working hours, are included in the EMP.
- **Worker Health and Safety:** Health and safety risks associated with demolition and construction will be mitigated through strict adherence to occupational health and safety protocols detailed in the EMP.

10 SUMMARY AND APPLICATION

10.1 SUMMARY OF POTENTIAL PROJECT IMPACTS, AVOIDANCE MEASURES AND RESIDUAL IMPACTS

POTENTIAL IMPACT:	MEASURES:			RESIDUAL IMPACTS:
	AVOIDANCE:	MITIGATION:	ENHANCEMENT:	
Stimulate local economic development and create employment opportunities:			<p>New business erf will satisfy smaller business investor needs.</p> <p>Businesses 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 the requirement and employment of local people.</p>	Long-Term Positive Impact
Providing serviced residential erven:			<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>	Long-Term Positive Impact

POTENTIAL IMPACT:	MEASURES:			RESIDUAL IMPACT:
	AVOIDANCE:	MITIGATION:	ENHANCEMENT:	
<p>Stimulate the health and wellness:</p>			<p>THE DEVELOPMENT:</p> <p>Provide for flood safe residential erven.</p> <p>Provide for flood-safe water connection.</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 access to public open space.</p> <p>Provide for pedestrian infrastructure.</p> <p>Provide for business opportunities and is accessible to job opportunities.</p> <p>The development is also situated within walking distance from the town schools and health facilities</p>	<p>Long-Term Positive Impact</p>

			within Oshakati	
Potential removal of existing trees:	Removal of existing trees	<p>Trees will be accommodated within:</p> <ul style="list-style-type: none"> - Individual erven. - The road alignment, reserve and - Public open space. 		<p>Short-Term Impact</p> <p>Not all the existing trees can be accommodated in the new layout.</p>

POTENTIAL IMPACT:	MEASURES:			RESIDUAL IMPACTS:
	AVOIDANCE:	MITIGATION:	ENHANCEMENT:	
Potential dust and noise on the construction site:	Avoided potential dust and noise	<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"> • Noise will be restricted between 07h00 and 18h00 		<p>Moderate potential dust and noise on the construction site.</p> <p>Not all the dust and noise can be prevented.</p>
Potential in an increase in traffic during construction phase	Uncontrolled increase in traffic during construction phase	Traffic during the construction phase will be restricted between 07h00 and 18h00		Short-Term potential traffic increase during the construction phase

Health and Safety of n workers		per construction practices and safety procedures need to be applied.		Medium health and safety impact on workers
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POTENTIAL IMPACT:	MEASURES:			RESIDUAL IMPACTS:
	AVOIDANCE:	MITIGATION:	ENHANCEMENT:	
The Potential impact on the wetland area:	Avoid interfering with the biodynamic of the wetland /flood-plain.	<p>STRUCTURAL MEASURES:</p> <p>The layout stays clear of natural water line.</p> <p>Hydrological infrastructure will be used to prevent interference with the natural water flow.</p> <p>The sewer system will consist of a closed gravity system, which will pump the sewer to the town's evaporation ponds.</p> <p>NON-STRUCTURAL MEASURE:</p> <p>Areas lower than 941m contour will be zoning as public open space.</p>		<p>Moderate risk of impact on the Wetland area</p> <p>The two business erven will be filled-in, and the water channel will be formalised.</p>
Potential Flooding:		<p>NON-STRUCTURAL MEASURE:</p> <p>Use the natural water flow line and accommodated the topography of the land.</p>		Low risk re to flooding the develop

		<p>STRUCTURAL MEASURES:</p> <p>Make use of culverts and bridges through roads.</p> <p>Erven will be filled- in to prevent flooding, and water channel will be formalised.</p>		<p><i>Not all impacts prevented</i></p>
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11 SUMMARY AND APPLICATION

SWIB Trading CC, through the applicant as the appointed Town Planning authority, hereby submits an application for an Environmental Clearance Certificate for the development of Erf RE/5144, Ondangwa, located within the Ondangwa Local Authority Area, Oshana Region.

The subject erf currently hosts a single residential structure and one Camelthorn tree. The proposed development involves the demolition of the existing structure to allow for the establishment of a mixed-use development, consisting of a car wash facility and residential flats. The existing Camelthorn tree will be preserved within the new layout. No flood-prone areas or wetlands are present on the site, and the erf is entirely dry, ensuring minimal environmental sensitivities.

This application is submitted in accordance with the Environmental Management Act, 2007 (Act No. 7 of 2007) and the 2012 Environmental Impact Assessment Regulations. The activity is categorized under:

- **Activity 1(a):** Construction of settlements and buildings.
- **Activity 5.1(b):** Rezoning and subdivision of land.

As this development constitutes a significant change from the existing single residential use, an Environmental Clearance Certificate is required to:

- Regularize the proposed land use change from "Single Residential" to "Business/Residential (Mixed Use)";
- Ensure compliance with environmental legislation;
- Confirm that mitigation measures for residual impacts (demolition, dust, noise, traffic, and worker safety) are implemented in accordance with the Environmental Management Plan (EMP); and
- Document stakeholder engagement and public consultation processes conducted for this proposal.

The proposed development aims to optimize land use efficiency, promote local economic activity, and provide additional housing opportunities while maintaining environmental safeguards.

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