

PROPOSED HOUSING DEVELOPMENT ON ERF 745, OLYVENHOUTSDRIFT, UPINGTON, NORTHERN CAPE



DRAFT BASIC ASSESSMENT REPORT

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PREPARED FOR:

Satinsky 108 (Pty) Ltd
Albe v.d. Merwe
Posbus 2895,
Upington,
8800

PREPARED BY:

EnviroAfrica

P.O. Box 5367
Helderberg
7135

Tel: 021 – 851 1616

Fax: 086 – 512 0154

EXECUTIVE SUMMARY

Introduction

It is proposed that 32 residential units be developed on Erf 745, Olyvenhoutsdrift, located outside of Upington.

The site is currently vacant and undeveloped.

The town of Upington is located centrally within the Northern Cape Province. The property (Erf 745, Olyvenhoutsdrift Settlement) is located adjacent to the N10 national road and approximately 1.5km directly south of Upington. The proposed site is located off Jooste Eiland Road, Olyvenhoutsdrift, Upington, Northern Cape.

Coordinates: S 28°28'19.40", E 21°14'57.09".

Services

The services to the proposed development are described in the Services Report (**Appendix D1**).

- Roads and access:

The N10 runs along the eastern boundary of the site. Due to limited sight distances however, access to the development directly from the N10 is not advisable. Approvals from SANRAL for access from the N10 will therefore also be highly unlikely.

Access will however be obtained from the existing Jooste Eiland Road approximately 100m from an existing intersection with the N10, thereby complying with SANRAL regulation.

Internal roads shall be 6m in width for internal collector roads and 5.5m in width for access roads to residential units. Roads will be black top (typically Cape or double seal) with the required base, sub base and selected layer works.

- Water:

Internal water pipes shall be Ø 63mm and Ø 75mm uPVC Class 9, connected to the existing (2x) Ø 300mm municipal bulk mains running along the N10.

Connection to the municipal bulk water supply can be via an existing Ø 100mm water connection crossing the N10 or a new Ø 110mm connection installed through the N10 to allow for future capacity, depending on the preference of the municipality.

Water pressure in the municipal bulk supply network within the vicinity was found to vary between a minimum of 2.8 bar (peak) and a maximum of 4.8 bar (off-peak).

The development is expected to generate an average flow of 0.37 l/s with an instantaneous peak flow of 2.22 l/s.

A peak flow of 2.22 l/s will result in an approximate 0.03 m/s increase to peak flow velocity within the specific Ø 300mm municipal bulk water mains. The additional peak flow required is expected to have only a minor effect on the capacity of the bulk mains, which should be able to accommodate the required demand.

- Sewerage:

The internal sewer system will consist of Ø 160mm uPVC Class 34 sewer pipes for general distribution with Ø 110mm uPVC Class 34 house connections.

The development is expected to discharge an estimated peak sewage flow of 1.21 l/s that will be pumped to the Rosepark sewage pump station approximately 700m away via a Ø 90mm uPVC Class 6 pipe.

Rosepark sewage pump station services the Eiland Resort with an estimated occupied peak sewage generation of 3.3 l/s. Rosepark pump station is equipped with 3.3 kW Flyght submersible pumps which can be expected to have an estimated pump capacity in excess of 10 l/s. It can therefore be concluded that an additional peak flow of 1.21 l/s should not present any problems in terms of pump station capacity.

- Solid waste:

Solid waste will be collected and handled by the municipality as this development falls within the urban edge and the general area of service by the municipality.

- Stormwater:

Storm water run-off will be handled overland and accommodated within roads where required, within the boundaries of the development. Existing surface drainage routes to the Orange River will be used to maintain the current storm water run-off scenario.

- Electricity:

The proposed development will be executed in two phases and for the purpose of this report we accept that the development will be done in roughly two equal portions.

An in loco inspection in the presence of the Electrical Engineer of the Municipality was conducted on the existing medium voltage network and transformer installation on Pole LV3, which is situated on the southerly boundary of the property.

It was then discussed that the initial phase of the development will be accommodated on the low voltage reticulation network provided by the existing transformer and, if necessary, this transformer will be upgraded as the current unit shows severe signs of oil leakage.

It was further discussed that the balance of the development can also be accommodated on the low voltage reticulation network provided by an upgraded transformer.

The financial contribution by the developer for this upgrading exercise was not finalised but it is normal practise to request a contribution based on the pro rata loading on the distribution transformer.

The expected after diversity maximum demand for this development amounts to 125kVA.

Municipal services directly to the site of the development are limited, but connection to bulk municipal infrastructure is plausible in terms of water, sanitation and electrical reticulation. The scope of the development is of such scale that it is expected to have a limited impact on the bulk municipal services.

Environmental Requirements

The National Environmental Management Act (NEMA, Act 107 of 1998), as amended, makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the competent authority based on the findings of an Environmental Assessment. NEMA is a national act, which is enforced by the Department of Environmental Affairs (DEA). According to the regulations of Section 24(5) of NEMA, authorisation is required for the following:

Government Notice R983 (Listing Notice 1)::

12: The **development** of;

- (i) canals exceeding 100 square metres in size;
- (ii) channels exceeding 100 square metres in size;
- (iii) bridges exceeding 100 square metres in size;
- (iv) dams, where the dam, including infrastructure and water surface area, exceeds 100 square metres in size;
- (v) weirs, where the weir, including infrastructure and water surface area, exceeds 100 square metres in size;
- (vi) bulk storm water outlet structures exceeding 100 square metres in size;

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- (vii) marinas exceeding 100 square metres in size;
- (viii) jetties exceeding 100 square metres in size;
- (ix) slipways exceeding 100 square metres in size;
- (x) buildings exceeding 100 square metres in size;
- (xi) boardwalks exceeding 100 square metres in size; or
- (xii) **infrastructure or structures with a physical footprint of 100 square metres or more;**

where such development occurs;

- (a) within a watercourse;
- (b) in front of a development setback; or
- (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;

27: The **clearance of an area** of 1 hectares or more, but less than 20 hectares of **indigenous vegetation**, except where such clearance of indigenous vegetation is required for;

- (i) the undertaking of a linear activity; or
- (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

Site Description

The site is almost completely degraded, with very little indigenous vegetation left on the site. The site would historically have been covered in Bushmanland Arid Grassland (Least Threatened). However, very little remains due to activities on the site. The site has been heavily impacted by illegal public dumping of rubble and litter.

A canal and siphon run crosses a small portion of the property.

A 31.49m wide unregistered servitude will be maintained over the canal, in which no development will take place. Please refer to Appendix J1 for more information on the canal servitude and the correspondence with Department of Water and Sanitation.

Need and Desirability

The influx of people, due to the steep increase in employment opportunities in the area, causes a direct increase in the need for goods, services and especially housing in the Upington area. The need and desirability for a housing development, as proposed, thus arises.

The Spatial Development Framework of the //Khara Hais Municipality supports the development of the proposed area for mixed use. The current zoning on the property is Agricultural I. Erf 745 is to be rezoned to D.h.2 Group Housing, F.d.3 Private road, and, B.c.3 Parks and Open Space for the proposed construction of the housing development.

The proposed development will contribute positively to the land value of the involved property, as well as that of surrounding properties. The proposed utilisation of the involved properties will entail a very high quality, partly temporary and partly permanent, residential development that will greatly contribute to the south-eastern entrance of the town of Upington.

The proposed development will also create temporary job opportunities during the construction phase, and possibly permanent job opportunities during the operational phase.

Conclusion

The overall environmental impact is expected to be low (negative).

Considering all the information, it is not envisaged that this proposed development will have a significant negative impact on the environment, and the environmental and socio-economic benefits are expected to outweigh any negative impacts.

It is therefore recommended that this application be authorised with the necessary conditions of approval as described throughout this BAR.