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BACKGROUND INFORMATION DOCUMENT

THE PROPOSED UPGRADING OF OLIFANTSPOORT AND EBENEZER WATER SUPPLY SCHEMES, PHASE 1 WITHIN THE JURISDICTION OF CAPRICORN AND MOPANI DISCRIT MUNICIPALITIES, LIMPOPO PROVINCE.

JANUARY 2022

Prepared by:

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Prepared for:

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On Behalf of:

Lepelle Northern Water (SOC)



INTRODUCTION

The Lepelle Northern Water (SOC), a water service board supplying three regions in Limpopo Province, namely: Capricorn, Mopani, and Sekhukhune Region proposes upgrading of Olifantspoort and Ebenezer Water Supply Schemes, Phase 1 within the Jurisdiction of Capricorn and Mopani District Municipalities, Limpopo Province.

The bulk water pipeline upgrades and refurbishment between Olifantspoort and Ebenezer Schemes' water conveyance and storage infrastructure will take place along Haenertsburg and Tzaneen within Greater Tzaneen Municipality; Lebowakgomo within Lepelle-Nkumpi Municipality; Rural Polokwane areas and Krugersburg within Polokwane Municipality and traversing the following localities: Syferkuil farm, Driefontein Farm, Bezuidenhout Lust farm, Patent farm, Majebas Kraal, Rustfontein farm, Bochum Farm, Driekuil farm, Eindeliek farm, Hove farm, Troutwaters AH, Haenertsburg Town and Townlands, Polokwane Game Reserve, and Krugersburg.

Consequently, an environmental impact assessment (EIA) has commenced, assisting the Lepelle Northern Water (the Applicant) in identifying all potential adverse environmental consequences of the project,

their extent, significance and to ensure that the environmental management requirements are adequately implemented.

The purpose of this Background Information Document (BID) is to provide you, as an Interested or Affected Party (I&AP), with a brief description of the EIA process to be undertaken and to obtain comments and contributions from I&AP's with regards to the potential impacts to the environment by the proposed project.

PROJECT DESCRIPTION

The proposed upgrading of Olifantspoort Water Supply Scheme, Phase 1 from Olifantspoort WTW to Krugersburg Reservoirs, and Upgrading of Ebenezer Water Supply Scheme, Phase 1 from Ebenezer Pumpstation to Rustfontein, and Mankweng reservoir off-take, will include the following components of the water conveyance and storage infrastructure:

Olifantspoort Water Scheme:

The total pipeline length for Olifantspoort Scheme upgrade is **86km** from olifants river (abstraction) to Krugersburg reservoirs. There are components of water conveyance and storage infrastructure along the pipeline route, as outlined below:

- ✚ The upgrading of Olifantspoort weir and raw water abstraction works;

- ✚ Construction of 200 000m² Olifantspoort off-channel storage dam with 5m embankment height,
- ✚ Construction of 1500mmø raw water mains (350m from Olifantspoort abstraction to off-stream storage dam, and 450m from off-stream storage dam to Olifantspoort WTW);
- ✚ Refurbishment of the Olifantspoort Water Treatment Works (WTW); Upgrading of the existing Olifantspoort WTW by constructing new 60 Ml/d module;
- ✚ Refurbishment of Pump Station (PS): PS1, PS2 and PS3; Upgrading of Specon Storage Reservoirs;
- ✚ Constructing a new pump stations at PS1 (Olifantspoort WTW) and PS2 and PS3;
- ✚ Duplicate/dualisation of approximately **28.3km** (800mmø) existing main by adding another (1500mmø) rising main from Olifantspoort WTW (PS1) to Specon;
- ✚ Duplicate/dualisation of approximately **23.6km** (790mmø) existing main by

adding another (1500mmø) main from Specon to PS2, and from PS2 Witkos Reservoir;

- ✚ Duplicate/dualisation of approximately **14.6km** (740mmø) existing main by adding another(1200mmø) main from Witkos Reservoir to PS3 and Palmietfontein Reservoir;
- ✚ Construction of new reservoirs at Witkos (30Ml) and Palmietfontein (50Ml);
- ✚ Construction of approximately **8.5km** (1200mmø) pumping main with pumping rate of (1900 l/s) from Palmietfontein Reservoirs to OSA164;
- ✚ Construction of approximately **11km** (1200mmø) gravity main with pumping rate of (1900 l/s) from OSA 164 to Krugersburg reservoirs.

Ebenezer Water Scheme:

The total pipeline length for Ebenezer Scheme upgrade is approximately **13.5km**. There are components of water conveyance and storage infrastructure along the pipeline route, as outlined below:

- ✚ The refurbishment of the Ebenezer WTW;

- ✚ Refurbishment and modifications to Ebenezer high-lift pump station;
- ✚ Construction of approximately **11km**(900mmø) new pumping main with a pumping rate of (1250l/s), corresponding to 89 Ml /day from Ebenezer high-lift pump station to Rustfontein reservoirs complex;
- ✚ Extension of approximately **2.5km** (600mmø) pumping main (Pipeline B) from Chamber GB73 to the Mankweng reservoir off-take.

Both of the proposed pipeline upgrades and refurbishment between Olifantspoort and Ebenezer Schemes' water conveyance and storage infrastructure merge to supply the Polokwane Municipal Area. This will enable an additional 40Ml/day to be supplied to Polokwane City (25Ml/day from Olifantspoort and 15Ml/day from Ebenezer). The total length of pipeline upgrade for these two schemes is approximately 99.5km.

PROJECT LOCATION

The site co-ordinates are as follows:

Olifantspoort Water Scheme:

Olifants Abstraction	
Co-ordinates	24°21'40.14"S, 29°45'39.60"E
Olifants Weir	
Co-ordinates	24° 21' 40.10"S,

	29°45'41.58"E
Raw Water main to Off-stream storage Dam	
Start Co-ordinates	24°21'40.11"S, 29°45'41.60"E
End Co-ordinates	24°21'39.18"S, 29°45'28.72"E
Off- stream storage Dam	
Co-ordinates	24°21'38.30"S, 29°45'25.88"E
PS1 – Specon	
Start Co-ordinates	24°21'17.29"S, 29°45'32.10"E
End Co-ordinates	24°18'16.70"S, 29°30'32.31"E
Specon to PS2	
Start Co-ordinates	24°18'15.17"S, 29°30'37.49"E
End Co-ordinates	24°16'32.52"S 29°32'39.35"E
PS2 to Witkos	
Start Co-ordinates	24°16'30.64"S, 29°32'37.59"E
End Co-ordinates	24°09'32.02"S, 29°28'51.09"E
Witkos Reservoir	
Co-ordinates	24°09'33.01"S, 29°28'52.71"E
Witkos-PS3 Pumping Main	
Start Co-ordinates	24°09'29.75"S, 29°28'50.06"E
End Co-ordinates	24°08'39.35"S, 29°28'51.70"E
PS3-Palmietfontein Reservoir Main	
Start Co-ordinates	24°08'39.02"S, 29°28'50.56"E
End Co-ordinates	24°01'47.07"S, 29°27'33.71"E
Palmietfontein Reservoir	
Co-ordinates	24° 1'46.35"S, 29°27'34.32"E
Palmietfontein to OSA164	
Start Co-ordinates	24°01'46.12"S, 29°27'32.14"E
End Co-ordinates	23°57'24.12"S, 29°27'07.00"E
OSA164 Krugersburg	
Start Co-ordinates	23°57'22.86"S, 29°27'09.34"E
End Co-ordinates	23°53'36.82"S, 29°30'24.49"E
Krugersburg Reservoirs	
Co-ordinates	23°53'37.91"S, 29°30'18.16"

Ebenezer Water Scheme:

Ebenezer Pumpstation- Rustfontein	
Start Co-ordinates	23°56'45.94"S, 29°58'59.78"E
End Co-ordinates	23°56'14.78"S, 29°54'08.87"E
Extension to Mankweng	
Start Co-ordinates	23°54'48.91"S, 29°42'24.10"E
End Co-ordinates	23°54'25.96"S, 29°41'58.89"E.

WHAT IS AN ENVIRONMENTAL IMPACT ASSESSMENT?

An EIA is an effective planning and decision-making tool, which allows for the identification of potential adverse environmental consequences of a proposed project, and its management through the planning process.

In terms of the National Environmental Management Act, 1998 (Act No.107 of 1998), as read with the Environmental Impact Assessment (EIA) Regulations of 2014 as amended in 2017, an Environmental Authorization must be obtained from the relevant decision-making authority, the Department of Forestry, Fisheries and the Environment (DFFE) prior to the commencement of any of the listed activities that may result in potential negative impacts on the environment. Thus, an environmental impact assessment is required. A Basic

assessment that includes the public participation process will be performed.

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

In terms of the Environmental Impact Assessment (EIA) regulations, an independent Environmental Assessment Practitioner must be appointed to conduct the EIA. Therefore, Emvelo Consultant has been appointed to conduct the EIA. Emvelo will identify and assess the potential environmental impacts associated with the proposed activity by conducting an objective and independent EIA in which all the relevant information and opinions of Interested and Affected Parties (IAPs) will be collected and passed on to the Department of Forestry, Fisheries and the Environment (DFFE) In this way, an informed decision-making process can take place

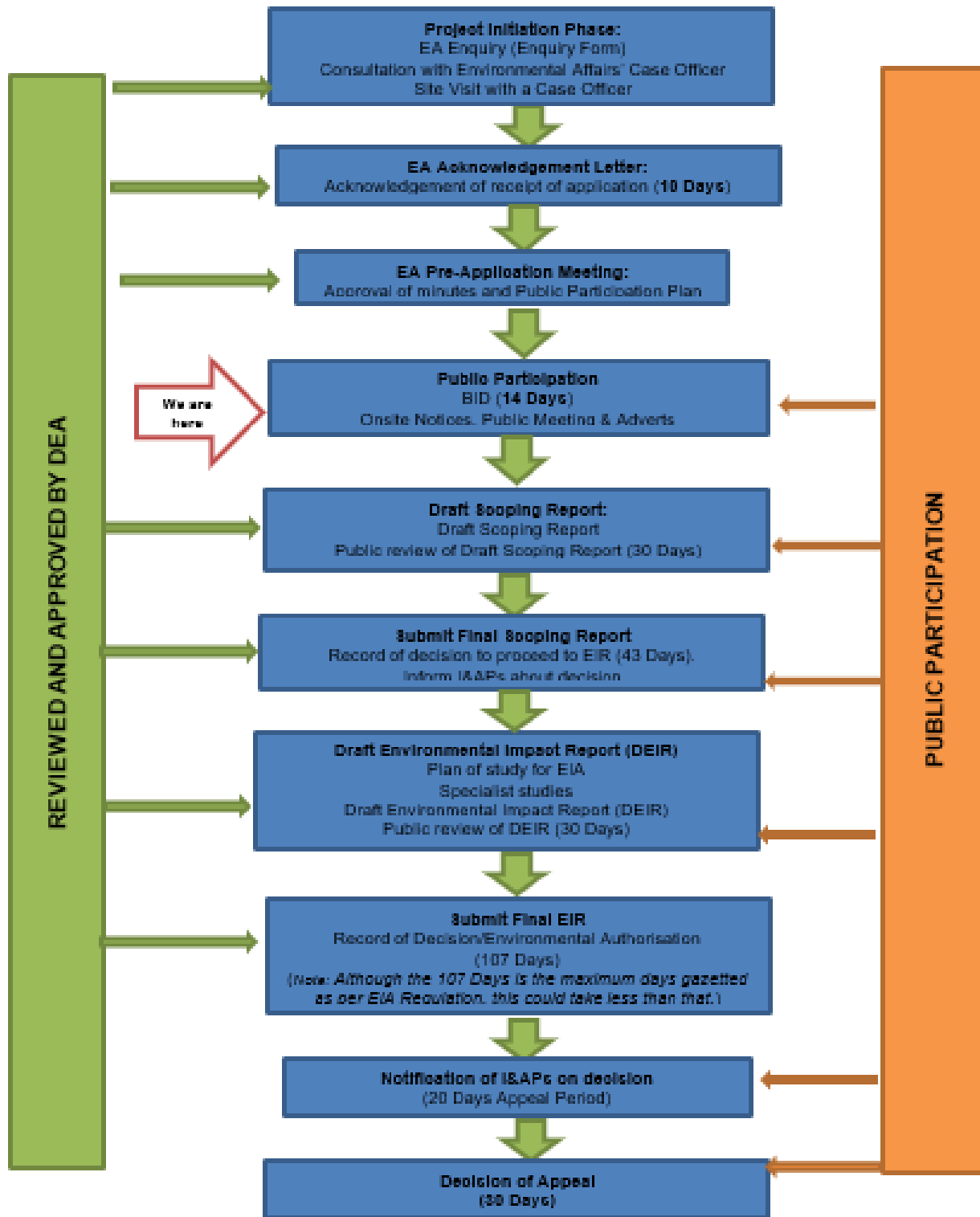


Figure 1: EIA process

LISTED ACTIVITIES TRIGGERED BY THIS PROJECT

The proposed project triggers the following listed activities of the Listing Notices;

Table 1: Listed Activities

LISTING NOTICE	ACTIVITY	DESCRIPTION OF ACTIVITY
1	9	The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0.36 metres or more; (ii) with a peak throughput of 120 litres per second or more.
1	12	The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a

LISTING NOTICE	ACTIVITY	DESCRIPTION OF ACTIVITY
		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;
1	19	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles, or rock of more than 5 cubic metres from-

LISTING NOTICE	ACTIVITY	DESCRIPTION OF ACTIVITY
		(i)A watercourse, (ii)the seashore; (iii)the littoral active zone, an estuary, or a distance of 100 metres inland of the high-water mark of the sea or an estuary.
1	27	The clearance of an area of 1 hectare 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.

LISTING NOTICE	ACTIVITY	DESCRIPTION OF ACTIVITY
1	45	The expansion of infrastructure for the bulk transportation of water or storm water where the existing infrastructure- (i)has an internal diameter of 0.36 metres or more; or (ii)has a peak throughput of 120 litres per second or more.
3	12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. <u>e. Limpopo</u> i. Within any critically endangered or

LISTING NOTICE	ACTIVITY	DESCRIPTION OF ACTIVITY
		<p>endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>ii. Within critical biodiversity areas</p>

LISTING NOTICE	ACTIVITY	DESCRIPTION OF ACTIVITY
		<p>identified in bioregional plans; or</p> <p>iii. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.</p>
3	14	<p>The development of—</p> <p>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or</p> <p>(ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs—</p> <p>(a) within a watercourse;</p>

LISTING NOTICE	ACTIVITY	DESCRIPTION OF ACTIVITY
		<p>(b) in front of a development setback; or</p> <p>(c) if no development setback has been adopted, within 32metres of a watercourse, measured from the edge of a watercourse;</p> <p><u>e. Limpopo</u></p> <p>i. Outside urban areas:</p> <p>(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p>

LISTING NOTICE	ACTIVITY	DESCRIPTION OF ACTIVITY
2	11	The development of facilities or infrastructure for the transfer of 50 000 cubic metres or more water per day, from and to or between any combination of the following — (i) water catchments; (ii) water treatment works; or (iii) impoundments; excluding treatment works where water is to be treated for drinking purposes.
2	15	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in

LISTING NOTICE	ACTIVITY	DESCRIPTION OF ACTIVITY
		accordance with a maintenance management plan.
2	16	<p>The development of a dam where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the highwater mark of the dam covers an area of 10 hectares or more.</p> <p>Applicability: <i>The off-stream channel will comprise of four earth embankment walls with the highest at 20 m above NGL, which therefore exceed 5 metres in height, and the highwater mark of the dam will covers an area of approximately 200 000m², which is</i></p>

LISTING NOTICE	ACTIVITY	DESCRIPTION OF ACTIVITY
		<i>more than 10 hectares</i>

The NEMA, and the Environmental Impact Assessment (EIA) Regulations (2014) as amended in 2017, govern the process of applying for environmental authorization for certain developments. A provision in the EIA Regulations is made for two forms of assessment: Basic Assessment and Scoping & EIA, depending on the scope of the activity. The EIA regulations specify that: Activities identified in Listing Notice 1 and 3 (GNR 327 and 324 of 2017) requires a Basic Assessment while activities identified in Listing Notice 2 (GNR 325 of 2017) are subject to a Scoping and EIA. The listed activity associated with the proposed development is: Listing Notice 1, Activity 9,12, 19, 27 and 45; Listing Notice 3, Activity 12 and 14; Listing Notice 2, Activity 11, 15 and 16. Therefore, this application will follow a **Scoping/EIA process**, as a result mentioned Listing Notice 2 triggers.

WHAT IS PUBLIC PARTICIPATION?

Public participation is the process that promotes information sharing, consultation, and active involvement amongst stakeholders, and all interested and affected parties.

During the Public Participation Process, input from the proponent, technical experts, government authorities and the general public will be gathered to result in a better understanding of the project for all involved, thus ensuring an informed decision-making throughout the process.

REGISTRATION OF INTERESTED AND AFFECTED PARTIES.

Any person, company, authority, or other entity that might be directly or indirectly

affected by the proposed activity is invited to register as an I&AP, in order to assist the EAP in identifying possible environmental, economic, and social impacts of the proposed development and to make suggestions for mitigations. These comments will be included as part of the EIA report which will be submitted to the Department of Forestry, Fisheries, and the Environment (DFFE) for consideration.

I&APs may forward their written comments along with their contact details within 14 days from receiving the document to; **Phumzile Lembede**.

Postal address: P. O. Box 101672, Meerensee,3901;

Tel: 035 789 0632;

Fax: 086 577 5220,

Email: info@emveloconsultants.co.za.

APPENDIX A: (LOCALITY MAP)

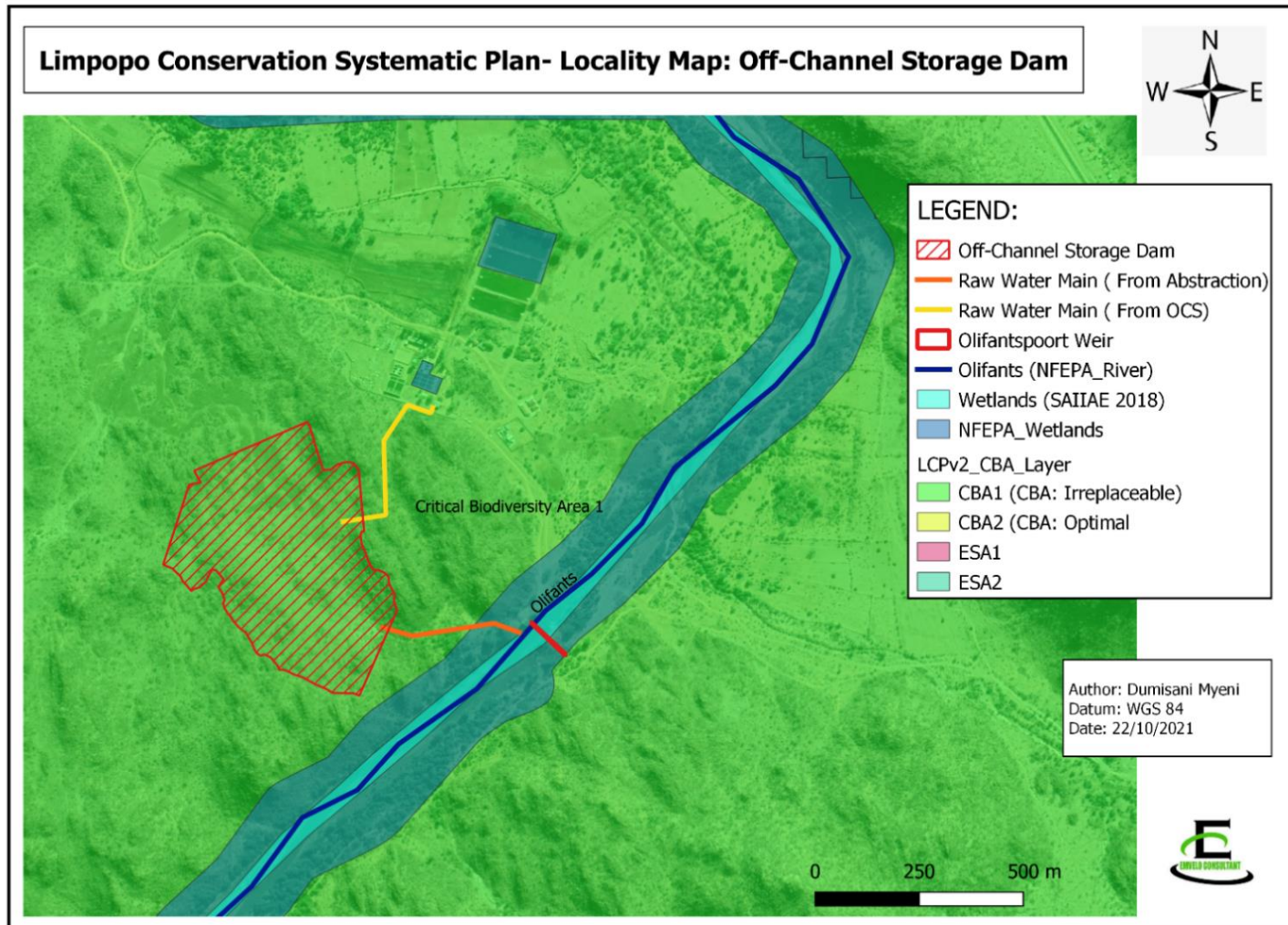


Figure 2: Map Showing Locality of off channel storage dam

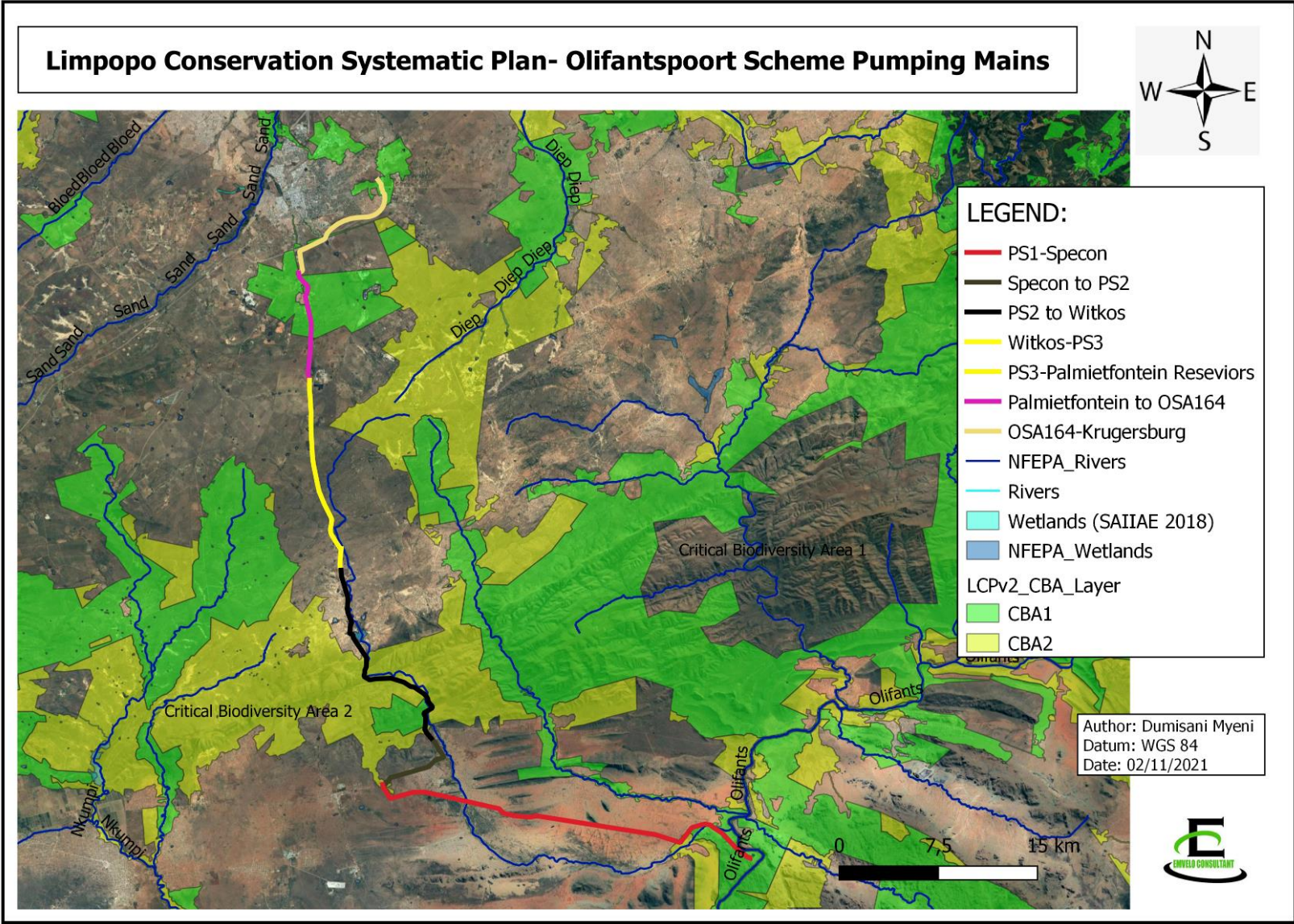


Figure 3: Map Showing Locality of Olifantspoort scheme pumping mains

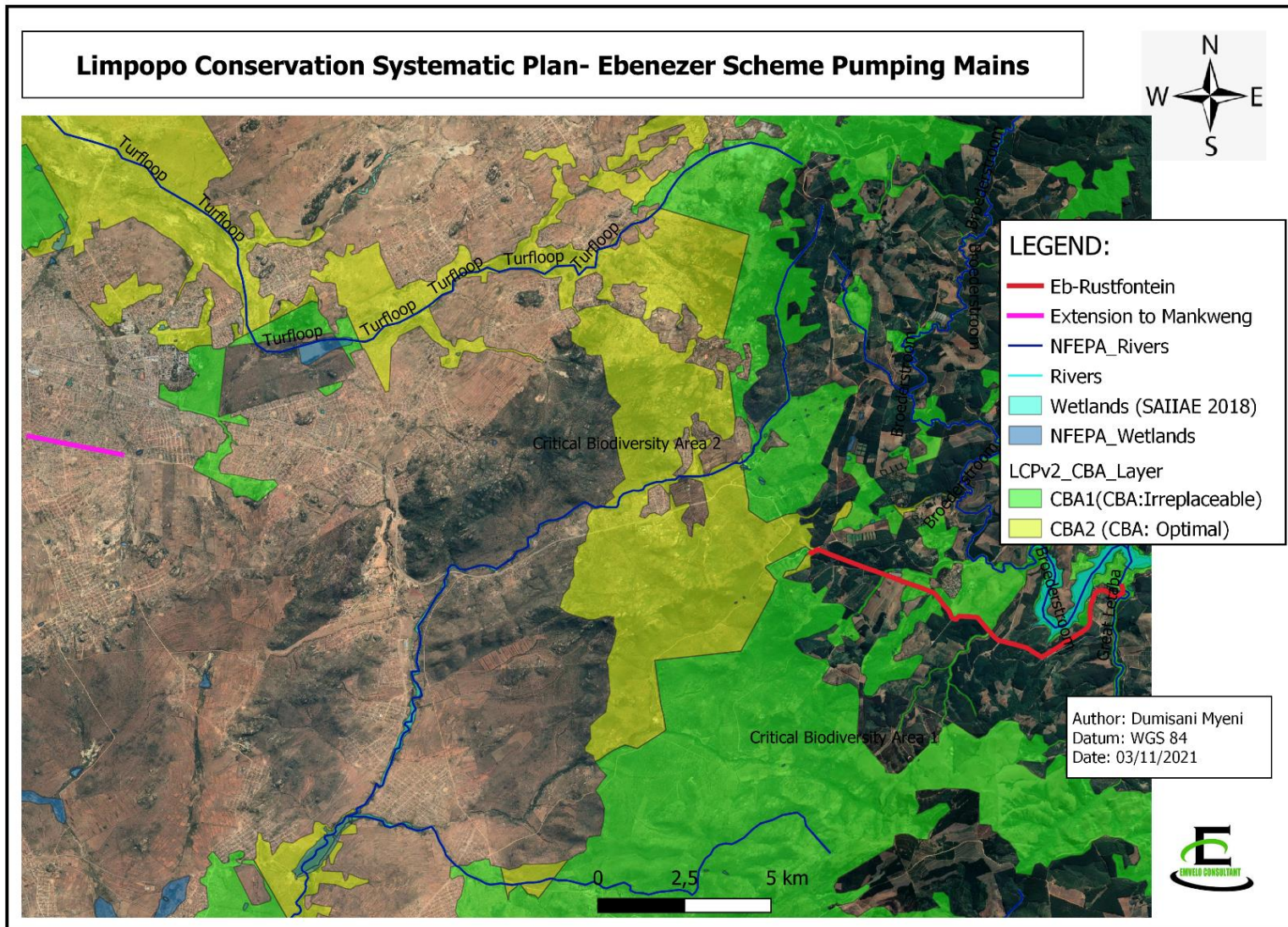


Figure 4: Map Showing Locality of Ebenezer Supply Scheme Pumping Mains



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REGISTRATION AND COMMENT FORM

THE PROPOSED UPGRADING OF OLIFANTSPOORT AND EBENEZER WATER SUPPLY SCHEMES, PHASE 1 WITHIN THE JURISDICTION OF CAPRICORN AND MOPANI DISCRIT MUNICIPALITIES, LIMPOPO PROVINCE.

I wish to register as an interested and affected party and / or bring to the attention of Emvelo Consultant the following information.

<u>Personal Information</u>	
Name and Surname	
Company /organization	
Physical Address	
<u>Postal address</u>	
<u>Telephone:</u>	<u>Cell:</u>
Email:	
Due to Covid-19 Pandemic, we would like you to inform us on a preferred and effective means of receiving documents and communication from us.	
<u>Method:</u>	<u>Address:</u>
<u>Comments</u>	

Signature

Date