April 2023

SPECIALIST CONFIRMING STATEMENT: Aquatic Assessment of the Proposed Merensky-Uchoba 132kV Deviation route 2, 2023

A report commissioned by

LANDSCAPE DYNAMICS

ENVIROGUARD ECOLOGICAL SERVICES CC
PO Box 703
Heidelberg
1438

Cell: 082 4641021
envguard@telkomsa.net

CONTENTS

SPECIALIST STATEMENT

The contents of this specialist report comply with the legislated requirements as described in the "Standard for the Development and Expansion of Power Lines and Substations within Identified Geographical Areas (revision 2 – June 2022) by the Department of Forestry, Fisheries and the Environment (2022).

<table>
<tr><th>NUMBER</th><th colspan="2">STATEMENT</th></tr>
<tr><td>1</td><td colspan="2">A statement on the duration, date and season of the site verification inspection and walkthrough as well as the relevance of the season to the outcome of the confirming statement.</td></tr>
<tr><td></td><td>The survey was conducted during a once-off site visit on 29 March 2023.</td><td>See pages 5-6 .</td></tr>
<tr><td>2</td><td colspan="2">Confirmation that the aquatic ecology (flora and fauna) and existing environmental impacts within the final pre-negotiated route and/or substation location is low, based on the most recently available desktop data, site verification inspection and walk through.</td></tr>
<tr><td></td><td>Eleven tributaries were identified within the 100 m corridor of the proposed deviation route. The correspondent environmental sensitivity is as follows:

<table><tr><th>Vegetation Unit</th><th>Aquatic Biodiversity Importance</th></tr><tr><td>Tributaries</td><td>High (to be avoided)</td></tr></table>
Pylon placement will NOT take place within the areas identified as having ‘n High Biodiversity Importance and their associated 32 m buffer zones. These areas may however by spanned by the power line conductors because the impact to the ecological sensitivity will be minimal / zero.</td><td>See Section 3 & Figures 3-6</td></tr>
<tr><td>3</td><td colspan="2">Identification of aquatic ecological areas to be avoided within the preliminary corridor, including buffers.</td></tr>
<tr><td></td><td>The Tributaries should be avoided due to their water channelling and storage functions.</td><td>See Section 4 & Figures 9-12</td></tr>
<tr><td>4</td><td colspan="2">An aquatic biodiversity sensitivity map, generated by the screening tool and enhanced by any relevant additional information, overlaid with the proposed development footprint (i.e. pylon placement and power line route, as well as supporting infrastructure).</td></tr>
<tr><td></td><td>The Aquatic Sensitivity Map clearly shows the various watercourses with their associated buffers. Pylon placement is not allowed, and these areas must be spanned.</td><td>Sections 3.1 - 3. 3</td></tr>
<tr><td>5</td><td colspan="2">A description on how the identified environmental sensitivity, relating to aquatic ecology, has been considered in determining the proposed route.</td></tr>
<tr><td></td><td>It is not thought that the proposed deviation route would have any negative effect on the watercourses provided that no placement of pylons is done within the Tributaries.</td><td>See Section 4 & Figures 9-12</td></tr>
</table>

6	***A description on how the identified engineering constraints, relating to aquatic ecology, have been considered in determining the proposed route.***	
	The pylons should easily be able to span the Tributaries and should have no effect on the watercourses.	See Section 4
7	***A description of the implementation of the mitigation hierarchy in order to determine the proposed route and/or substation location.***	
	The mitigation hierarchy includes the following steps (in order of decreasing desirability): Avoid, Minimise, Rehabilitate, and Offset. In the case of this project, the following applies: • Avoid *The identified watercourses and associated buffers will be avoided (pylon placement will not take place within these areas).* • Minimise *Impact to the biodiversity of the site will be minimised by implementing the site-specific mitigation measures, read together with the Eskom Generic EMPr.* • Rehabilitate *Rehabilitation of disturbed areas will be done according to the Eskom Generic EMPr.* • Offset Offsets are not applicable to this project.	See Section 4
8	***How the comments from interested and affected parties on the proposed route and/or substation location were incorporated.***	
	This Specialist Confirming Statement is being distributed together with the Draft Environmental Sensitivity Report (ESR) for public comment. Should any input from the public change the content / outcome of this report, amendments will be made and submitted with the Final ESR. The Final ESR will be submitted to DFFE for decision making and registration of the project.	
9a	***A statement confirming that:*** ***a). impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or*** ***b). where required, specific impact management outcomes and actions are required and have been provided as part of the site specific EMP***	
	The impact management actions in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks are mostly sufficient, but additional site-specific mitigation measures are provided and also needs to be applied.	See Section 4

CONDITIONS RELATING TO THIS REPORT

Declaration of interest

Enviroguard Ecological Services cc and its members/co-workers:

- Have no vested interest in the property studied nor is it affiliated with any other person/body involved with the property and/or proposed development.
- Is not a subsidiary, legally or financially of the proponent.
- Do not have any financial interest in the undertaking of the activity, other than remuneration for the work performed in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).
- Declare that remuneration for services provided by Enviroguard Ecological Services cc and its members/co-workers is not subjected to or based on approval of the proposed project by the relevant authorities responsible for authorising this proposed project.
- Undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA.
- Reserve the right to modify aspects pertaining to the present investigation should additional information become available through ongoing research and/or further work in this field.
- Is committed to biodiversity conservation but concomitantly recognize the need for economic development. We reserve the right to form and hold our own opinions within the constraints of our specialities and experience, and therefore will not submit willingly to the interests of other parties or change our statements to appease them.

The study was undertaken by Prof. LR Brown (PhD UP) who is registered as a Professional Natural Scientists with the following details:

Prof LR Brown: Reg. No. 400075/98 (Botanical Science and Ecological Science).

SPECIALIST	QUALIFICATION
Prof. L.R. Brown	PhD Terrestrial plant ecology MSc. Water ecology BSc Hons (Botany) BSc (Ed) (Botany, Zoology, Education) Wetland and Riparian Delineation *(DWAF Accredited Course)* Soil Classification and Wetland Delineation Short Course – TERRASOIL Science Wetland Legislation Course - Wetrest

Indemnity

Although Enviroguard Ecological Services cc exercises due care and diligence in rendering services and preparing documents, the client takes full responsibility for this report and its implementation in terms of the National Environmental Management Act of 1998, and exempt Enviroguard Ecological Services cc and its associates and their sub-contractors from any legal responsibility based on the timing of the assessment, the result and the duration thereof, which has an influence on the credibility and accuracy of this report. .Enviroguard Ecological Services cc accepts no liability, and the client, by receiving this document, indemnifies Enviroguard Ecological Services cc and its directors, managers, agents and employees against all actions, claims, demands, losses, liabilities, costs, damages and expenses arising from or in connection with services rendered, directly or indirectly by Enviroguard Ecological Services cc and by the use of the information contained in this report.

Factors limiting the quality of this study

The watercourse assessment was conducted during a once-off site visit on 29 March 2023.

Copyright

Copyright on the intellectual property of this document (e.g. figures, tables, analyses & formulas) vests with Enviroguard Ecological Services cc. The Client, on acceptance and payment of this report shall be entitled to use for its own benefit:

- The results of the project;
- The technology described in any report;
- Recommendations delivered to the Client.
-

Prof LR Brown *Pri.SciNat*; MGSSA
Enviroguard Ecological Services cc

1. TERMS OF REFERENCE

Enviroguard Ecological Services cc was appointed by Landscape Dynamics to conduct a watercourse assessment of, and also provide a specialist statement for the proposed Eskom Merensky-Uchoba 132kV Deviation route, Steelpoort, Limpopo.

The following is a summary of the project and areas assessed:

- An approximately 10,6km route is applicable
- A 100m corridor width was investigated and assessed.
- The 132kv Overhead Power Line will have a capacity of 132kV and monopole steel pylons will be used.
- Existing access roads to the powerline will be used. A new approximately 6m wide access road will be developed for construction, maintenance and inspection purposes within the servitude area along the powerline, but outside the identified High and Very High Sensitive Areas).

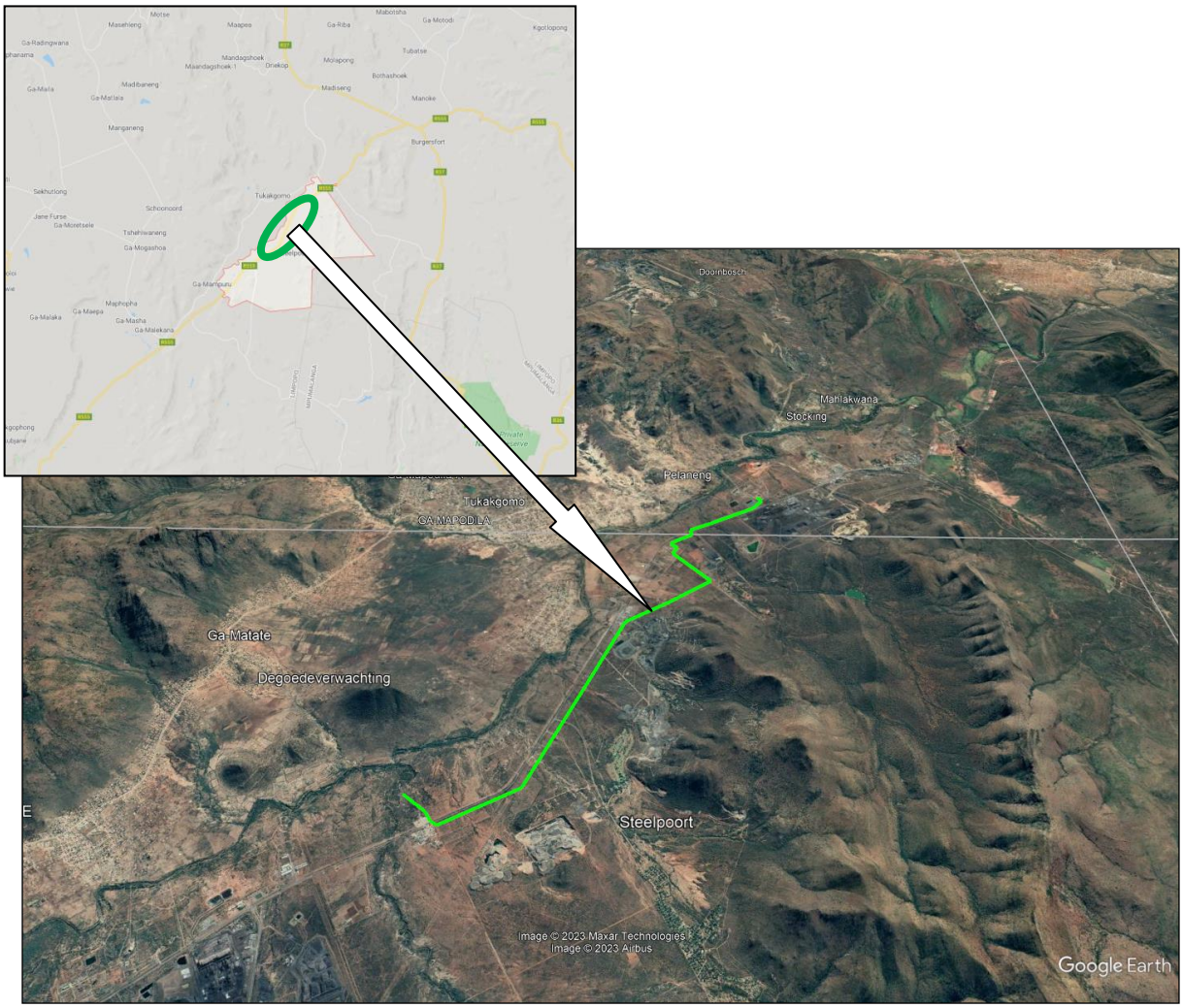

Figure 1. Location of study site (green circle – top figure) and the proposed deviation route (green line) (Source: Map data 2020, AfriGIS Pty, Ltd & Google Earth, 2023).

2. METHODS

In accordance with the Protocol (Department of Forestry, Fisheries and the Environment, 2022) the following approach was followed:

2.1 DESKTOP STUDY

Prior to the site visit a desktop study was undertaken using literature, satellite imagery and other information available on the internet. The following sources were used:

Department of Forestry, Fisheries & the Environment (DFFE) screening tool (Accessed 7 & 14 January 2023 and 30 March 2023).

South African National Biodiversity Institute's website (SANBI GIS) (Accessed 7 January 2023 and 30 March 2023).

Limpopo Conservation Plan v.2: Technical Report. Limpopo Department of Economic Development, Environment & Tourism (Desmet *et al.,* 2013).

Enviroguard Ecological Services cc. 2020. An ecological assessment of the flora and watercourses: Eskom Merensky-Uchoba Project. Enviroguard Ecological Services, pp. 98.

Google Earth Aerial photographs (Accessed 7 & 14 January 2023 and 30 March 2023)

South African National Biodiversity Institute (SANBI) & Department of Environmental Affairs and Tourism (DEAT). 2009. Threatened Ecosystems in South Africa: Descriptions and Maps. Draft Report May 2009.

National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004): Publication of Lists of Critically Endangered, Endangered, Vulnerable and Protected Species. Government Notices (Department of Environmental Affairs and Tourism, 2007).

2.2 FIELD SURVEYS

2.2.1 Wetlands

A Dutch soil auger was used to extract the cores to a depth of 50cm. All soil samples were evaluated in hand for soil composition, colour, number, size and chroma of mottles as well as wetness, after which they were discarded. The location of each soil core was marked using a hand-held Garmin Colorado 300 GPS. Field verification was limited to the presence of hydric soils on the site as well as presence of hygrophytic and hydrophilic vegetation.

Soil auger samples were taken in transects that were laid parallel to each other in the study area. Soil samples were taken along transects radiating away from the visibly 'wettest' parts of the area at regular intervals.

2.2.2 Riparian areas

Surveys started at the edge of the water/embankment and continued in a transect outwards away from the water. All common obligates within the riparian area were identified and noted. Sample plots of 0.5 x 0.5 m were placed along the transect and all plant species identifiable noted. The riparian zone extends to where the plant obligates did not occur anymore. The greatest width where obligates occur was then used to delineate the riparian zone.

Terrestrial species normally decline as one moves towards the riparian zone.

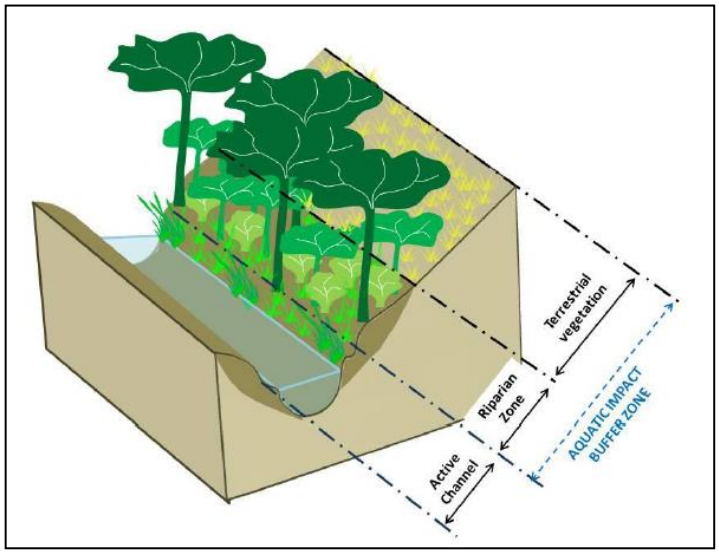

Figure 2. Schematic diagram of the riparian habitat (taken from Macfarland & Bredin, 2016)

The edge of the channel is used as the starting point from where the aquatic buffer zone is determined and zoned (Macfarland & Bedin, 2016.). For this study the riparian zone was determined and from there a buffer zone implemented.

Other characteristics also used in the delineation of the riparian zone included vegetation structure. There is normally a definite difference in vegetation structure between the riparian zone and the adjacent terrestrial vegetation areas. In most cases the riverine areas consist of larger woody species and a different species composition than that of the terrestrial zone.

Other aspects also measured include the channel width, river depth (estimation), retention time, and usage of the area.

2.3 DATA ANALYSIS

Where applicable the following analyses of the watercourses were conducted:

Wetland health / Wetland Index of Habitat Integrity (IHI)

WET-Health and Wetland IHI assists in assessing the health of wetlands using indicators based on geomorphology, hydrology, water quality and vegetation. For the purposes of rehabilitation planning and assessment, WET-Health helps users understand the condition of the wetland in order to determine whether it is beyond repair, whether it requires rehabilitation intervention, or whether, despite damage, it is perhaps healthy enough not to require intervention. It also helps diagnose the cause of wetland degradation so that rehabilitation workers can design appropriate interventions that treat both the symptoms and causes of degradation.

The Wetland IHI is a tool that was developed to be able to assess and monitor floodplain and valley-bottom wetlands and provides a score on the Present Ecological State of of the wetland habitat. A Wetland IHI assessment was conducted as per the procedures in DWAF (2007).

The tool evaluates the intactness of the wetland and is determined by a score known as the Present Ecological State (PES). The Present Ecological State (PES) refers to the current state or condition of a watercourse in terms of all its characteristics and reflects the change to the watercourse from its reference condition. The health assessments for the hydrology, geomorphology and vegetation components were then represented by the Present Ecological State (PES) categories. The PES categories are divided into six (A-F) units based on a gradient from “unmodified/natural” (Category A) to “severe/complete deviation from natural” (Category F) as depicted in Table 1.

Table 1. Present Ecological State categories used to define healt of water courses (adapted from Kleynhans, 1999).

Description	PES Score (%)	PES Category
Unmodified, natural.	**90-100**	**A**
Largely natural with few modifications. A slight change in ecosystem processes is discernible and a small loss of natural habitats and biota may have taken place.	**80-90**	**B**
Moderately modified. A moderate change in ecosystem processes and loss of natural habitats has taken place but the natural habitat remains predominantly intact	**60-80**	**C**

Largely modified. A large change in ecosystem processes and loss of natural habitat and biota and has occurred.	40-60	D
The change in ecosystem processes and loss of natural habitat and biota is great but some remaining natural habitat features are still recognizable.	20-40	E
Modifications have reached a critical level and the ecosystem processes have been modified completely with an almost complete loss of natural habitat and biota.	0-20	F

A summary of the change class, description and symbols used to evaluate wetland health are summarised in Table 2 below.

Table 2. Trajectory descriptions and symbols used to evaluate future direction of change to wetland health (Macfarlane et al, 2007).

Change Category	Description	Symbol
Improve	Condition is likely to improve over the over the next 5 years	(↑)
Remain stable	Condition is likely to remain stable over the next 5 years	(→)
Slowly deteriorate	Condition is likely to deteriorate slightly over the next 5 years	(↓)
Rapidly deteriorate	Substantial deterioration of condition is expected over the next 5 years	(↓↓)

Ecological Importance and Sensitivity

The **Ecological Importance and Sensitivity** (EIS) of a watercourse is an expression of its importance to the maintenance of ecological diversity and functioning on local and wider scales, and both abiotic and biotic components of the system are taken into consideration. Sensitivity refers to the system's ability to resist disturbance and its capability to recover from disturbance once it has occurred. The ecological importance and sensitivity categories are indicated in Table 3.

Table 3. Ecological Importance & Sensitivity Categories of Wetlands (DWAF, 1999)

EIS CATEGORIES	DESCRIPTION	RATING
LOW/MARGINAL	Not ecologically important and sensitive at any scale. The biodiversity of wetland is ubiquitous and not sensitive to flow and habitat modifications. They play an insignificant role in moderating the quantity and quality of water in major rivers	>0 and <1

EIS CATEGORIES	DESCRIPTION	RATING
MODERATE	Ecologically important and sensitive on a provincial or local scale. The biodiversity of these wetlands is not usually sensitive to flow and habitat modifications. They play a small role in moderating the quantity and quality of water in major rivers	>1 and <2
HIGH	Ecologically important and sensitive. The biodiversity of these wetlands may be sensitive to flow and habitat modifications. They play a role in moderating the quantity and quality of water of major rivers	>2 and <3
VERY HIGH	Ecologically important and sensitive on a national (or even international) level. Biodiversity usually very sensitive to flow and habitat modifications. They play a major role in moderating the quantity and quality of water in rivers	>3 and <4

Habitat integrity

The Habitat Integrity (HI) evaluation is used to provide a degree of measure to which a stream or river has been modified from its natural state. In order to determine the HI a qualitative assessment is done using various anthropogenic and other factors that could potentially affect the ecosystem. The severity of each impact is ranked using six classes: 0 (no impact); 1-5 (small impact); 6-10 (moderate impact); 11-15 (large impact); 16-20 (serious impact); 21-25 (critical impact) (DWAF 1999).

The determination of the HI category is calculated as follows: Total of ratings/maximum valuesx100. The percentage obtained is deducted from 100 and the class determined from the HI category table (Table 4).

Table 4. Habitat Integrity for rivers & streams (DWAF, 1999)

CATEGORY	DESCRIPTION	SCORE (%)
A	Unmodified, natural	90-100
B	Largely natural with few modifications. A small change in natural habitats and biota may have taken place but the ecosystem functions are essentially unchanged	80-89
C	Moderately modified. Loss and change of natural habitat and biota have occurred, but the basic ecosystem functions are still predominantly unchanged	60-79
D	Largely modified. A large loss of natural habitats and basic ecosystem functions has occurred	40-59
E	The loss of natural habitat, biota and basic ecosystem functions is extensive	20-39
F	Critically modified. Modifications have reached a critical level and the system has been modified completely with an almost complete loss of natural habitat. In worst instances the basic ecosystem functions have been destroyed and changes are irreversible.	0

3. RESULTS OF WATERCOURSE ASSESSMENT

Two units were identified along the proposed deviation route namely the River area and the tributaries (Figures 3-6):

3.1 VEGETATION

3.1.1 Tributaries

Soil	Clay to sandy reddish in colour	**Tree cover**	10%
Topography	Drainage channels	**Shrub cover**	15%
Land use	Grazing	**Herb cover**	10%
Unit status	Natural	**Grass cover**	20%
Faunal spp	Birds & insects	**Rock cover**	25-45%
		Erosion	n/a

Dominant spp	*Spirostachys africana, Combretum hereroense, Mundulea sericea, Euclea linearis, Andropogon shirensis, Eragrostis superba*
Threatened/Endemic/ Protected spp	*Searsia batophylla; Sclerocarya birrea*
Alien spp	*Solanum sisymbriifolium; Datura stramonium; Opuntia ficus-indica; Cereus jamacaru*
Comments	<u>General description</u> Numerous tributaries are present in the area. These areas are only wet during high rainfall events and channel water towards the Steelpoort River further west. <u>Biodiversity</u> No permanent water with no resultant aquatic organisms and plants. Vegetation mostly along embankments and has many similarities in terms of structure and composition to surrounding terrestrial vegetation. Moderate biodiversity with threatened species present. <u>Connectivity</u> Connected to the Steelpoort river further east and natural and degraded terrestrial ecosystems along embankments.

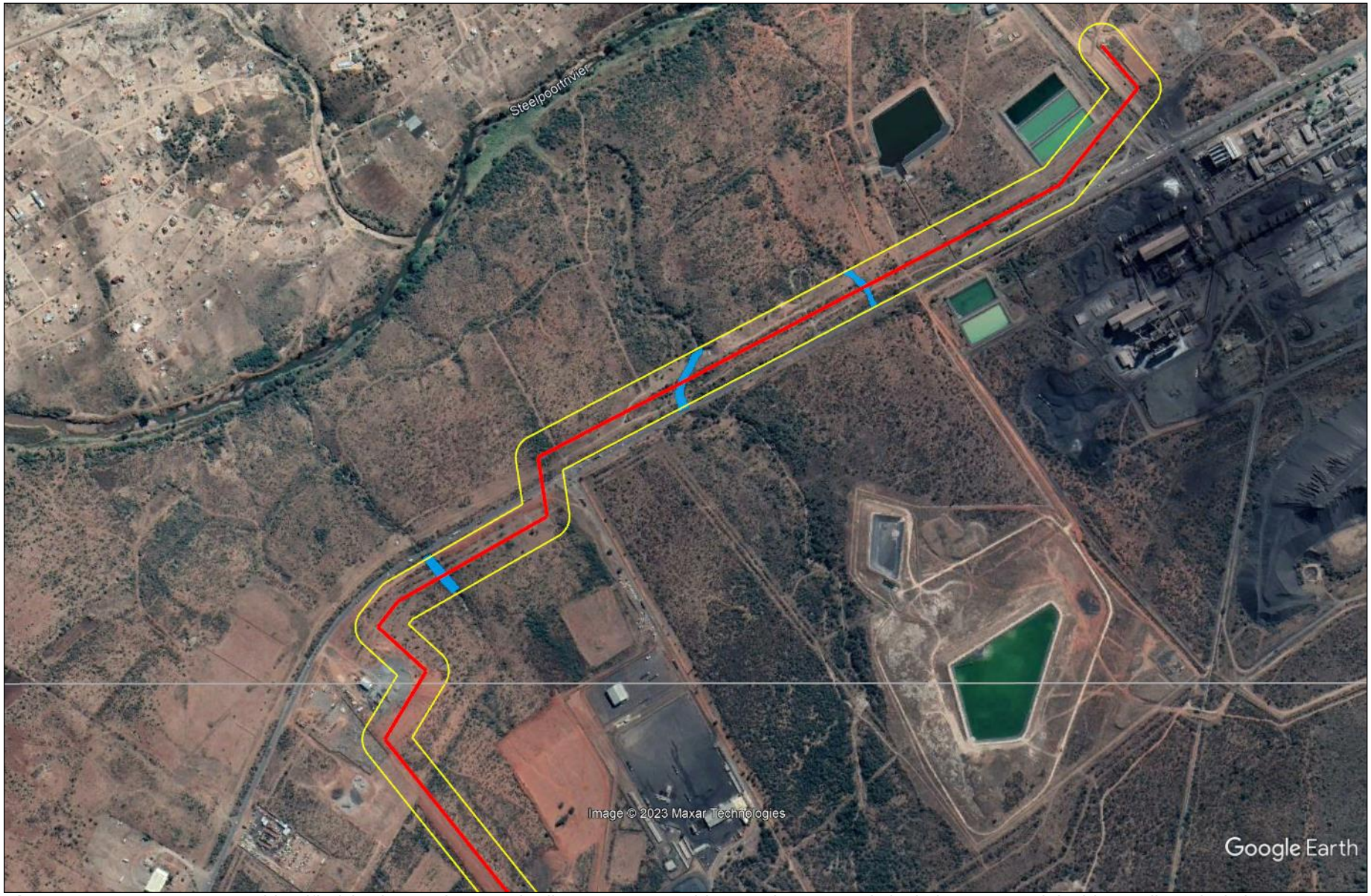

Figure 3. Watercourses identified in the study area (Yellow=100 m corridor; Red=Proposed deviation route; Light blue=Tributaries) (Source: Google Earth, 2023)

Figure 4. Watercourses identified in the study area (Yellow=100 m corridor; Red=Proposed deviation route; Light blue=Tributaries) (Source: Google Earth, 2023)

Figure 5. Watercourses identified in the study area (Yellow=100 m corridor; Red=Proposed deviation route; Light blue=Tributaries) (Source: Google Earth, 2023)

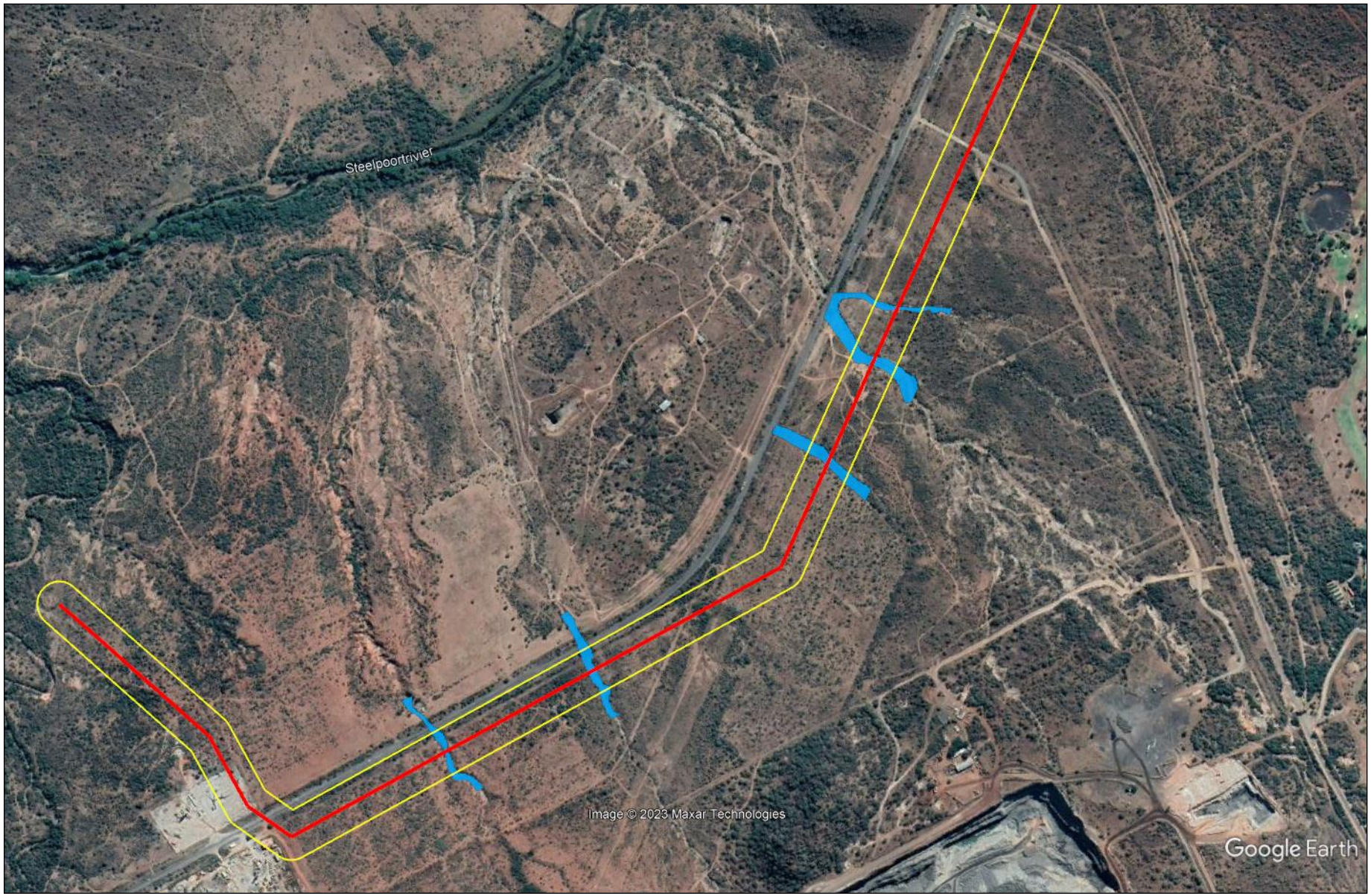

Figure 6. Watercourses identified in the study area (Yellow=100 m corridor; Red=Proposed deviation route; Light blue=Tributaries) (Source: Google Earth, 2023)

3.2 ASSESSMENT

3.2.1 Tributaries

These drainage pathways vary in size and width (between 1.5 m and 4.3 m). They only channel water during high rainfall events with only the larger tributaries retaining some water in the rainy season but are mostly dry drainage channels. This unit was therefore only assessed in terms of their Ecological Importance & Sensitivity (EIS) and Habitat Integrity (HI):

a) Ecological Importance and Sensitivity (EIS)

The EIS and functions for the **TRIBUTARIES** were calculated using a modified DWA guidelines and model, as developed by M. Rountree, but not yet published. Information was used form the SIBIS and VEGMAP products. A mean score between 0 and 4 is obtained, with 0 as the lowest and 4 as the highest score (0-1 = Low to very low; >1-2 = Moderate; >2-3 = Medium-high: >3-4 = High to very high).

The tributaries achieved a **Moderate Ecological Importance and Sensitivity** (EIS) score of **1.42** (Table 5). This is a value between 0 and 4, with 0 being very low and 4 very high. The tributaries mostly have a water channelling function towards the Steelpoort River during high rainfall events and is important on a local scale. The habitat of this system is mostly natural and linked to the surrounding environment.

Table 5 EIS calculation of the tributaries within the study site.

ECOLOGICAL IMPORTANCE AND SENSITIVITY	Score (0-4)	*Confidence (1-5)*
Biodiversity support	1.50	*4.00*
Landscape scale	1.75	*5.00*
Sensitivity of the stream/wetland	1.00	*4.00*
ECOLOGICAL IMPORTANCE & SENSITIVITY	**1.42**	***4.33***

b) Habitat Integrity (HI)

The Tributaries achieved a high, class C (close to B) score indicating them to be mostly natural with moderate changes in their habitat and biota which can mostly be ascribed to current and past anthropogenic influences (agriculture, grazing).

Table 6. Habitat Integrity for the tributaries of the study site.

	RANK
Habitat integrity (Instream)	**Tributaries**
Vegetation removal	2
Exotic vegetation	5
Bank erosion	10
Channel modification	6
Water abstraction	0
Inundation	0
Flow modification	n/a
Water quality	n/a
INTEGRITY CLASS	**C/B**

3.3 AQUATIC BIODIVERSITY

3.3.1 Limpopo Province C-Plan classification

According to SANBI C-Plan for Limpopo Province there are no wetland areas located on the proposed corridor area (Figure 7) as was confirmed by this study. However, various seasonally wet tributaries are present within the corridor as indicated in Figures 3-6.

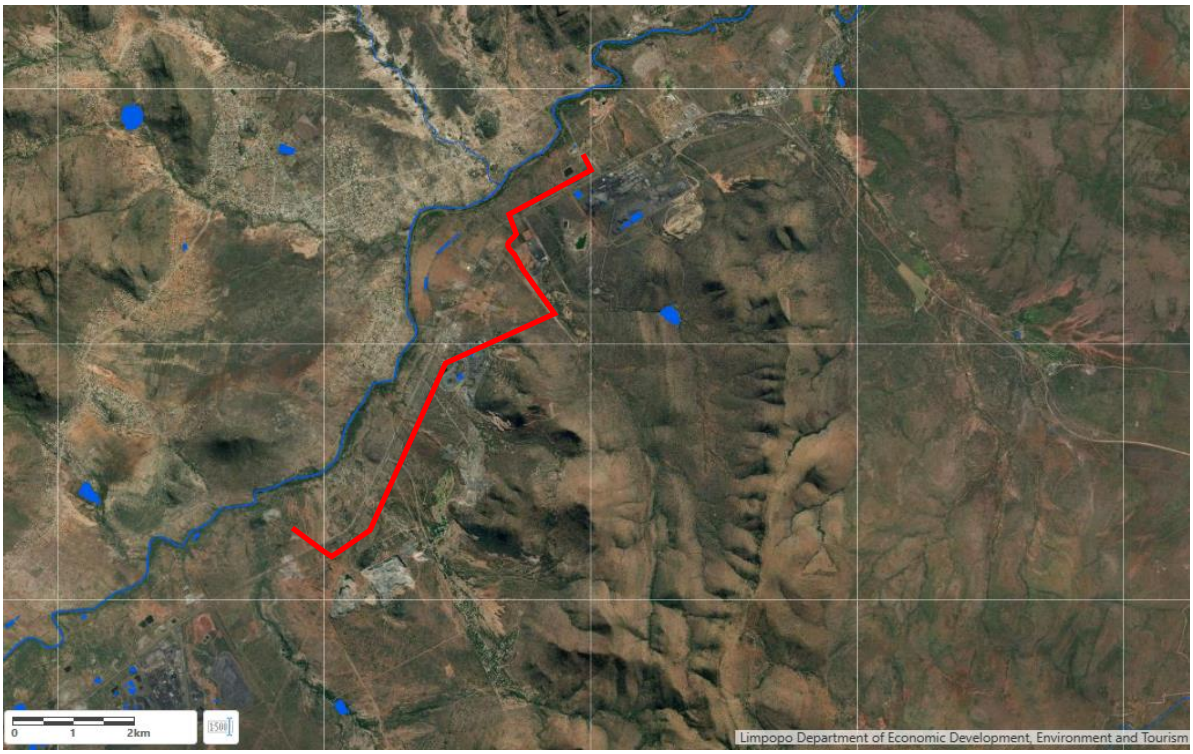

Figure 7. Wetland areas (blue sections) located within the study and surrounding areas (red line = proposed deviation route) (Image obtained from SANBI BGIS, Limpopo, 2023).

3.3.2 Department of Forestry, Fishery & the Environment (DFFE)

According to the DFFE screening tool the study area has an overall Low aquatic biodiversity (Figure 8).

Figure 8. Map of relative aquatic biodiversity (red line=proposed deviation route) (Source: Department of Forestry Fishery & Environment, 2023).

4. IMPACT STATEMENT & MITIGATION

Watercourses are important ecosystems in terms of their water channeling and storing capacities as well as habitat that they provide to various plant and animal species (terrestrial & aquatic). The River area has a moderate biodiversity and supports various aquatic organisms and achieved a high PES, a Medium-high EIS, and a high HI indicating its ecological sensitivity in spite of degraded sections along the riverbanks. The Tributaries have a moderate biodiversity with red data plant species present and achieved a Moderate EIS and a High HI indicating their ecological sensitivity as a watercourse.

No development should be allowed within any of the watercourse areas and a 32m buffer zone is recommended around their edges where no development should take place (Figures 9 - 12). Based on the results of this study as well as the Site Ecological Importance classification DEFF (2020), the following specific mitigation measures are recommended.

Ecological Importance*	Watercourse	Impact/mitigation Statement
Very High	Tributaries.	• Pylons must not be placed within these areas and associated buffer zones, but the areas may be spanned. • Threatened/endemic/protected species present in tributaries. • No threatened plant species may be removed or trimmed without obtaining the necessary permits from the Conservation authorities. • No person must be allowed to enter the tributary areas unless for crossing the area, which should be at a designated point for all to use. • Alien invasive plants present within the watercourses must be removed and eradicated throughout all stages of the project. • No roads are to be constructed through the watercourse areas. • Also refer to the Eskom Generic EMP

Site specific mitigation	Vegetation unit	Impact/mitigation Statement
	All watercourse units	• To minimise the effect on the watercourses, vegetation, insects, small mammals, aquatic organisms, and environment it is recommended that the construction be done within the winter period as far as possible, when most plants are dormant and animals less active. • No vegetation clearance (except for alien plant removal) within the watercourse areas. • Regular monitoring (monthly) for damage to the environment as well as establishment of alien plant species must be conducted. • No animals should be intentionally killed or destroyed and poaching and hunting should not be permitted on the site. • No hunting with firearms (shotguns, air rifles or pellet guns) or catapults should be permitted on the property as well as neighbouring areas. • Any animals encountered in the development areas must be relocated away from the development site. • Where lighting is required for safety or security reasons, this should be targeted at the areas requiring attention. Yellow sodium lights should be prescribed as they do not attract invertebrates at night and will not disturb the existing wildlife. Sodium lamps require a third less energy than conventional light bulbs.

Figure 9. Watercourses and associated 32m buffer zones (Blue=Tributaries; Red=32m buffer zones; Yellow=100 m corridor; Green=Proposed Deviation) (Source: Google earth 2023).

Figure 10. Watercourses and associated 32m buffer zones (Blue=Tributaries; Red=32m buffer zones; Yellow=100 m corridor; Green=Proposed Deviation) (Source: Google earth 2023).

Figure 11. Watercourses and associated 32m buffer zones (Blue=Tributaries; Red=32m buffer zones; Yellow=100 m corridor; Green=Proposed Deviation) (Source: Google earth 2023).

Figure 12. Watercourses and associated 32m buffer zones (Blue=Tributaries; Red=32m buffer zones; Yellow=100 m corridor; Green=Proposed Deviation) (Source: Google earth 2023).

5. COMPLIANCE STATEMENT

The proposed Deviation route consists of various seasonally moist tributaries that support a moderate biodiversity as explained in the report and the table below. It is not thought that the proposed deviation route would have a long-term negative impact on the aquatic biodiversity if all mitigation methods as listed in this report (section 4) are implemented.

Sensitivity Theme	Screening Tool Site Sensitivity	Specialist Site Sensitivity	Reasons why the Screening Tool Sensitivity is disputed / confirmed
Aquatic Biodiversity	**Low**	**Low & Moderate**	Watercourses are important ecosystems in terms of their water channelling and storing capacities as well as habitat that they provide to various plant and animal species (terrestrial & aquatic). Numerous tributaries (that are seasonally moist and channel surface water towards the Steelpoort river during high rainfall events) had been identified within the proposed deviation route and associated 100m corridor. They have been classified as having a medium biodiversity due to the presence of red data plant species present and achieved a Moderate EIS (Ecological Importance and Sensitivity (EIS) and a High HI (Habitat Integrity) (see Section 3) indicating their ecological sensitivity as a watercourse. These areas only support aquatic faunal species during the wet season depending on the rainfall. No development should be allowed within any of the watercourse areas and a 32m buffer zone is required around their edges where no development may take place as listed in Section 4

6. BIBLIOGRAPHY

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