Merafong Energy (Pty) Ltd

AQUATIC BIODIVERSITY SITE SENSITIVITY VERIFICATION REPORT

LILO and Substation

APRIL 2025

CONFIDENTIAL

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LILO and Substation

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1 INTRODUCTION

WSP Group Africa (Pty) Ltd. (WSP) was appointed by Merafong Energy (Pty) Ltd. to undertake the environmental permitting process to meet the requirements under the National Environmental Management Act (Act 107 of 1998) (NEMA), for the proposed Merafong Loop-In Loop-Out (LILO) Powerline and Substation Project (hereafter referred to as Project).

As part of the screening assessment, an aquatic biodiversity site sensitivity verification (SSV) study was conducted at the aquatic systems within the proposed Project footprint. This report therefore documents the findings of the aquatic biodiversity SSV study, with focus on rivers and streams.

1.1 PURPOSE OF THE REPORT

The objective of the screening and SSV report is to confirm or refine the various sensitivities ascribed to the study area by the screening tool, through conducting a desk-based biodiversity assessment and supplemented by the findings of the ground-truthing field surveys. It is anticipated that the information gathered in this report will be utilised to refine the layout of the proposed infrastructure so that significant impacts on biodiversity can be avoided.

This report is compiled in line with the following standard:

- *Standard for the Development and Expansion of Electricity Transmission and Distribution Power Line Infrastructure.*

Refer to Appendix A for the relevant Standard Checklist associated with this SSV report.

1.2 PROJECT LOCATION

The proposed study area is situated east of Carletonville and west of Westonaria within the Merafong City Local Municipality in the West Rand District Municipality of Gauteng, South Africa (Figure 1-1). The proposed Merafong Facility will be developed within a project area of approximately 564 hectares (ha), subject to finalisation based on technical and environmental requirements. The project consists of the following infrastructure (Figure 1-2):

- Single or double circuit 132 kV overhead power line to enable the evacuation of electricity by the proposed Merafong Energy to the national grid (total length approximately 700m).
- A 132kV switching substation to be developed within a 1.57 ha assessed area.
- An informal service road (i.e., Jeep track) is required to run the length of the proposed OHPL.

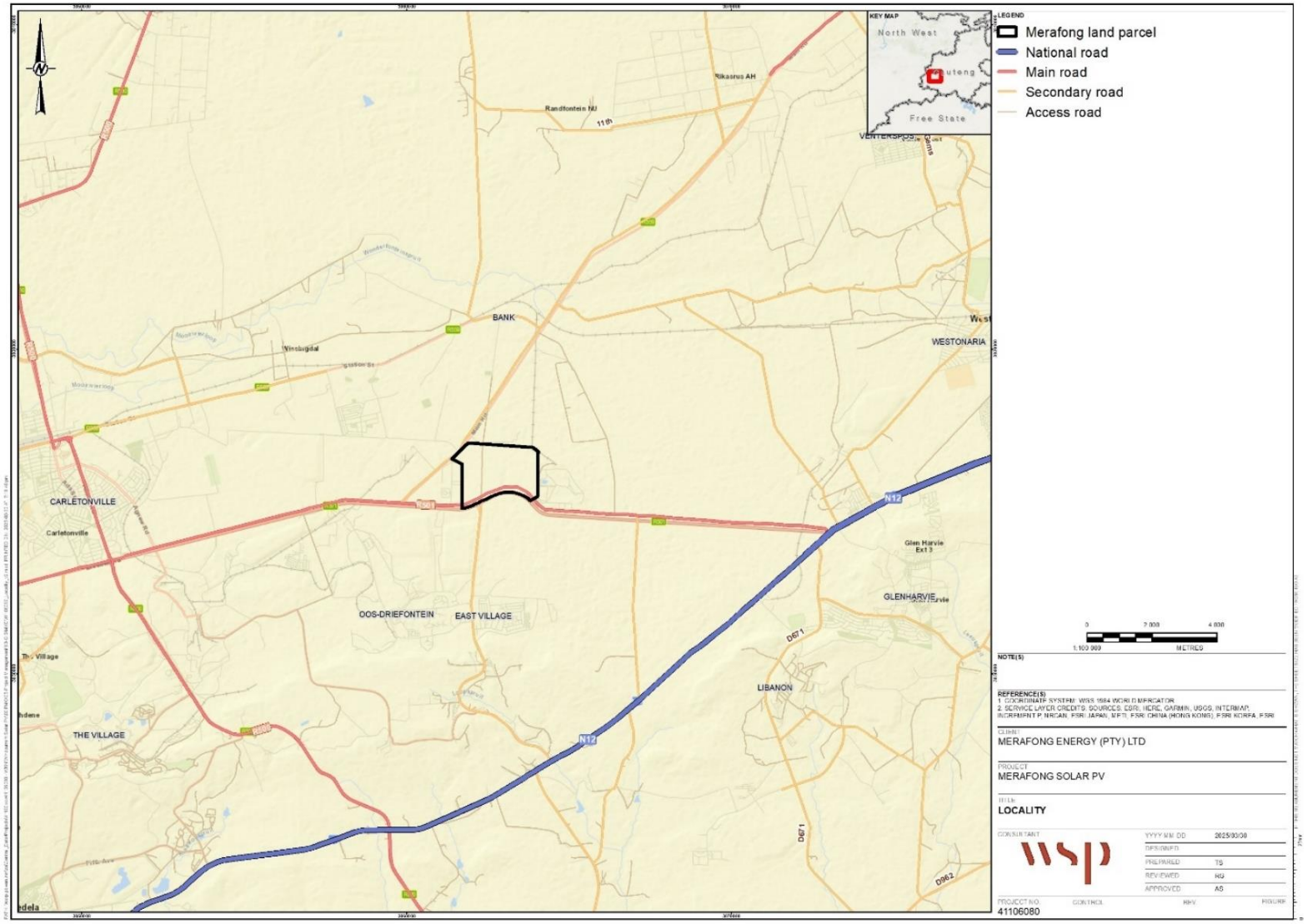

Figure 1-1 – Project locality

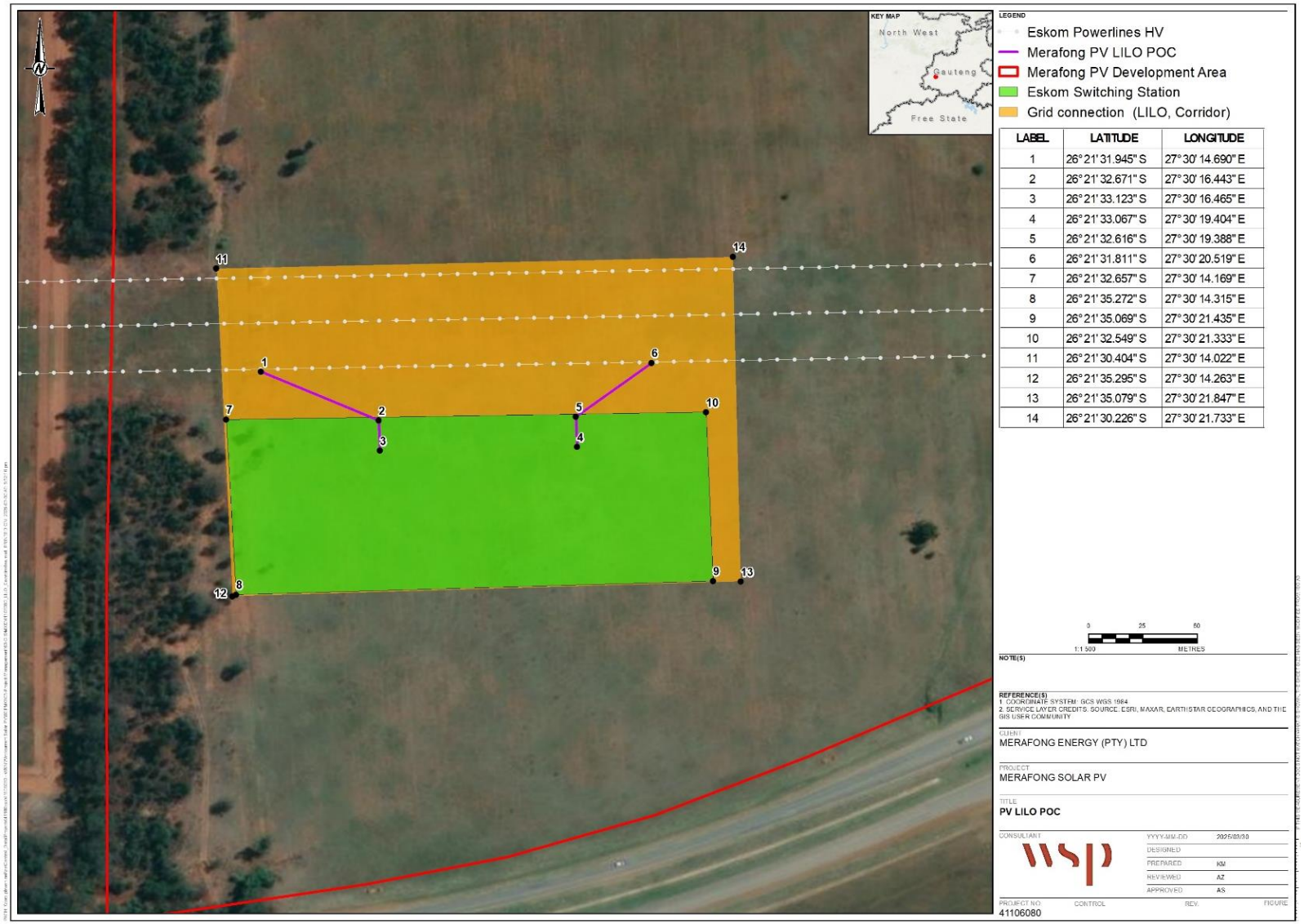

Figure 1-2 – Infrastructure Layout Plan

2 APPLICABLE LEGISLATION, POLICY AND STANDARDS

This Compliance Statement took cognisance of the requirements of specific applicable national and provincial legislation and associated regulations that are pertinent to aquatic biodiversity. These were used to guide this assessment, and include:

- **National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)** – Section 24 (1)(a) and (b) states that "the potential impact on the environment and socio-economic conditions of activities that require authorisation or permission by law and which may significantly affect the environment must be considered, investigated and assessed before their implementation and reported to the organ of state charged by law with authorizing, permitting, or otherwise allowing the implementation of an activity.
- **National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEM:BA)** – The NEM:BA regulates the management and conservation of the biodiversity of South Africa within the framework provided under NEMA. This Act regulates the protection of species and ecosystems that require national protection and considers the management of alien and invasive species.
- **National Water Act (Act No. 27 of 2014) (NWA)** – The NWA aims to protect, use, develop, conserve, manage and control water resources including rivers, dams, wetlands, the surrounding land, groundwater, as well as human activities that influence them. The NWA intends to protect these water resources against over exploitation and to ensure that there is water for social and economic development and water for the future.
- **National Water Act (Act 36 of 1998**) – Part 5 of chapter 3 deals with pollution of water resources following an emergency incident, such as an accident involving the spilling of a harmful substance that finds or may find its way into a water resource. The responsibility for remedying the situation rests with the person responsible for the incident or the substance involved. If there is a failure to act, the relevant catchment management agency may take the necessary steps and recover the costs from every responsible person.
- **The Gauteng Conservation Plan Version 4.0 (C-Plan 4.0)** – aims to serve as the primary decision support tool for the biodiversity component of the Environmental Impact Assessment (EIA) process; to inform protected area expansion and biodiversity stewardship programmes in the province; and to serve as a basis for development of Bioregional Plans in municipalities within the province.
- **Standard for the Development and Expansion of Electricity Transmission and Distribution Power Line Infrastructure** (**DFFE, 2024)** - The purpose of this Standard is to provide rules, which must be complied with, ensuring: (a) compliance with the principles contained in section 2 of NEMA and the duty of care, in terms of section28(1) of NEMA; and(b) the sustainable development of the country's electricity transmission and distribution infrastructure as well as any associated structures or infrastructure.

3 DETAILS OF THE SPECIALISTS

Wetland Specialist

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Aquatic Specialist

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Name:	**Tebogo Khoza (Report review)**
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3.1 DECLARATION OF INDEPENDENCE BY SPECIALIST

I, Alpheus Moalosi, a duly authorised representative of WSP (Pty) Ltd, declare that I –

- Act as the independent specialist in this application;
- Do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed;
- Do not have nor will have a vested interest in the proposed activity proceeding;
- Have no, and will not engage in, conflicting interests in the undertaking of the activity; and
- Undertake to disclose, to the competent authority, any information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document.

I, Tebogo Khoza, a duly authorised representative of WSP (Pty) Ltd, declare that I –

- Act as the independent specialist in this application;
- Do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed;
- Do not have nor will have a vested interest in the proposed activity proceeding;
- Have no, and will not engage in, conflicting interests in the undertaking of the activity; and
- Undertake to disclose, to the competent authority, any information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document.

I, Bhavna Ramdhani, a duly authorised representative of WSP (Pty) Ltd, declare that I –

- Act as an independent specialist in this application.
- Do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed.
- Do not have nor will have a vested interest in the proposed activity proceeding.
- Have no, and will not engage in, conflicting interests in the undertaking of the activity.
- Undertake to disclose, to the competent authority, any 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.

4 METHODOLOGY

This report has been drafted in accordance with the Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in Terms of Sections 24(5)(a) and (h) and 44 of NEMA (G.NR. 1150 of 2020) – Protocol for the specialist assessment and minimum report content requirements for environmental impacts on aquatic biodiversity.

4.1 SCREENING TOOL OUTCOMES

The National Web-based Environmental Screening Tool is a geographically based web-enabled application which allows a proponent intending to submit an application for environmental authorisation in terms of the Environmental Impact Assessment (EIA) Regulations 2014, as amended to screen their proposed site for any environmental sensitivity. Based on the sensitivity rating, a suitably qualified specialist must prepare the relevant report or opinion memo which is to be submitted as part of the EA application.

According to the guidelines, an applicant intending to undertake an activity on a site identified as being of “very high sensitivity” for an aquatic biodiversity theme must submit an Aquatic Biodiversity Impact Assessment or if the area is identified as being of “low sensitivity” then an Aquatic Biodiversity Compliance Statement must be compiled and submitted to the competent authority. Where the information gathered from the site sensitivity verification differs from the screening tool designation of “very high” aquatic biodiversity sensitivity, and it is found to be of a “low” sensitivity, an Aquatic Biodiversity Compliance Statement must be submitted. Similarly, where the information gathered from the site sensitivity verification differs from the screening tool designation of “low” aquatic biodiversity sensitivity, and it is found to be of a “very high” sensitivity, an Aquatic Biodiversity Specialist Assessment must be submitted.

For this proposed Project, the Screening Tool generated a Screening Report which identified the aquatic biodiversity sensitivity theme relative to the proposed Project footprint to be of ‘Very High Sensitivity’, due to the presence of scattered sensitive wetland features within the project area (Figure 4-1)

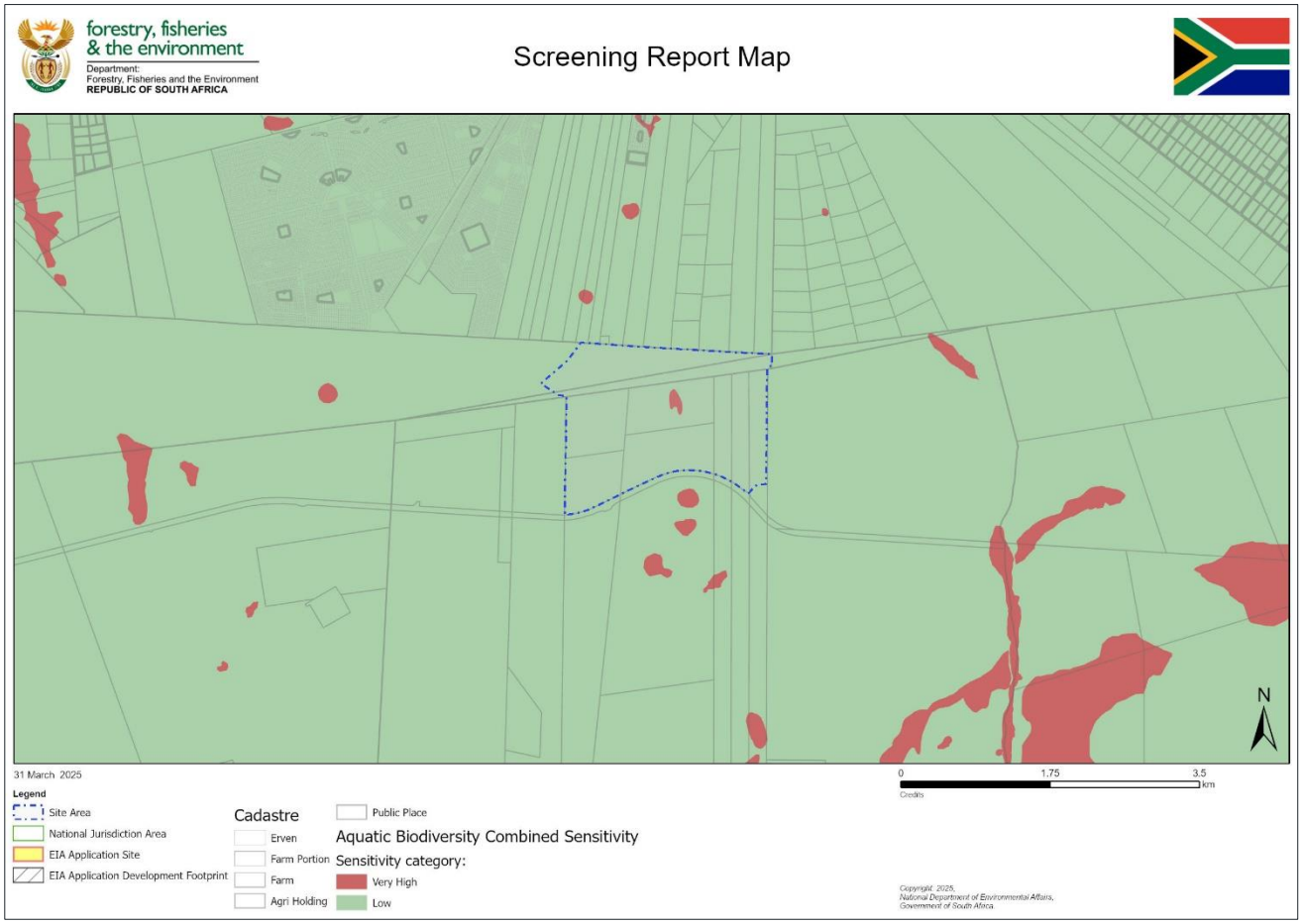

Figure 4-1 - Screening Tool- Aquatic Biodiversity Theme Sensitivity

To develop a baseline understanding of aquatic biodiversity constraints within the study area, so that the aquatic biodiversity and sensitivity ratings for the Project could be verified, a review and consolidation of existing literature and datasets was conducted. The tasks associated with these components are described below.

4.2 DESKTOP STUDY

To develop a baseline understanding of aquatic biodiversity constraints within the study area, so that the aquatic biodiversity and sensitivity ratings for the Project could be verified, a review and consolidation of existing literature and datasets was conducted. The aim of the desktop literature review component was to collate and review available ecological information related to important aquatic biodiversity and conservation features in the study area of influence, including presence of protected areas or important conservation areas, key ecological processes, and functions.

The existing available datasets that were reviewed and consolidated to assess the aquatic biodiversity systems include:

- The Gauteng Conservation Plan Version 4.0 (C-Plan 4.0) - 2011.
- DWS. 2014. A Desktop Assessment of the Present Ecological State, Ecological Importance and Ecological Sensitivity per Sub Quaternary Reaches for Secondary Catchments in South Africa. Compiled by RQIS-RDM: https://www.dwa.gov.za/iwqs/rhp/eco/peseismodel.aspx. Compiled by

RQIS-RDM:https://www.dwa.gov.za/iwqs/rhp/eco/peseismodel.aspx accessed on. https://www.dwa.gov.za/iwqs/rhp/eco/peseismodel.aspx

- The South African National Wetland Map version 5 (NWM5) (Van Deventer et al., 2019), and
- The National Freshwater Ecosystem Priority Area database.
- Available satellite imagery of the project area was screened to identify any colour signatures or features that may suggest the potential presence of freshwater aquatic features within the Project area and surroundings.

4.3 FIELD SURVEY

A field visit was conducted on the 15th of August 2024 to confirm the sensitivity of aquatic ecosystems associated with the proposed project area. A site survey was required to confirm the presence of wetland habitat identified within the project footprint according to the DFFE screening tool.

Based on the existing DWS 2007 drainage lines data set, there are no natural streams mapped within 500 m radius of the proposed project area. The field visit was however imperative to confirm desktop findings of what appeared to be artificial channels within a 500 m radius of the proposed project area. A total of six sites were visited during the SSV study. These are indicated in **Error! Reference source not found.** below.

The field survey encompassed a general habitat assessment, *in situ* water quality assessment, the collection of aquatic macroinvertebrates and an assessment of potential wetland areas according to the wetland delineation guidelines (DWAF, 2005).

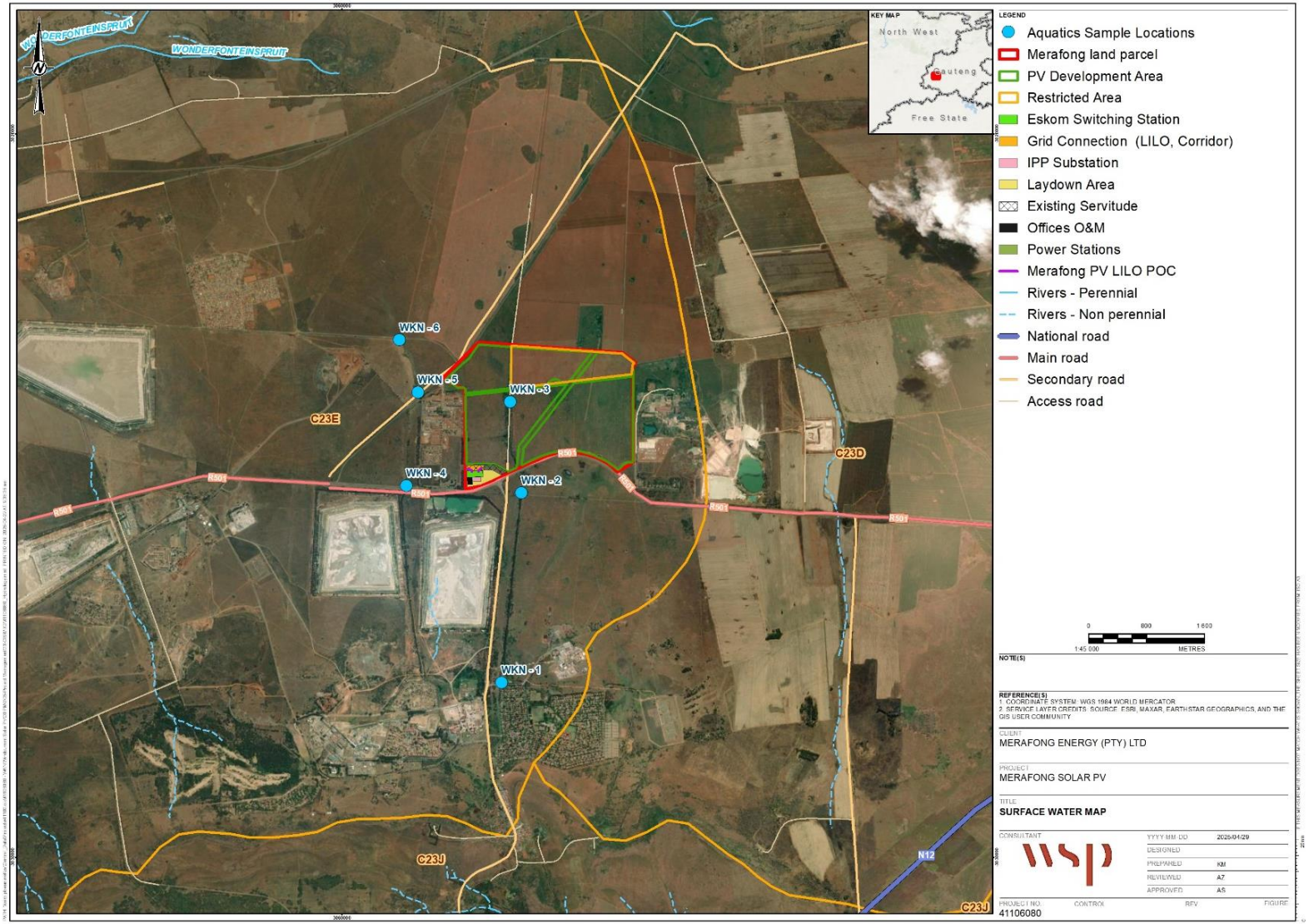

Figure 4-2 - Aquatic sampling points

4.4 ASSUMPTIONS AND LIMITATIONS

The following limitations are expressed as part of the current study:

- The assessed sites were located within artificial channels, therefore the standard biotic indices: the South African Scoring System (SASS5) and the Integrated Habitat Assessment System (IHAS) could not be conducted as these were designed for the evaluation of perennial streams and rivers with low/moderate flow hydrology (Dickens & Graham, 2002).
- An assessment of fish populations (Ichthyological assessment) was not undertaken due to the lack of suitable habitat.
- In order to obtain a comprehensive understanding of the dynamics of the biota present within a watercourse (e.g., migratory pathways, seasonal prevalence, etc.), studies should include investigations conducted during different seasons, over a number of years and through extensive sampling efforts. Given the time constraints of the present study, such long-term research could not be conducted. Instead, conclusions provided within this report are based on data collected during a single early high flow sampling event, a literature review, and professional experience.
- The site verification was conducted during winter and therefore soil indicators were used to identify the presence of wetland features.
- The site survey was undertaken during the winter months and the vegetation across much of the area of assessment had been previously burnt, thus limiting the use of vegetation indicators in the identification of wetland habitats. However, soil and terrain indicators could still be used to determine the presence or absence of wetland conditions.
- This study is considered as a once off assessment, which can only take into consideration the current condition with some speculation of historical events based on evidence observed on field and with the aid of satellite imagery. Since vegetation and habitats often vary temporally and spatially, there must be recognition of fact that certain aspects or features may not have been present on the day the site visit.
- Whilst the assessment techniques applied in this report are used in order to standardise and ‘objectify’ the assessment of the systems’ function, potential impacts and services, it must be noted that much of the information is subjectively collected based on the assessor’s experience and training. The assessor will, if additional information or counter arguments are provided and verified, hold the right to amend the report if need be.

5 AQUATIC BIODIVERSITY BASELINE DESCRIPTION

5.1 REGIONAL CONTEXT

5.1.1 REGIONAL AQUATIC BIODIVERSITY CONTEXT

The Project area falls within the C23E quaternary catchment of the Vaal Water Management Area (WMA) (Figure 5-1), however there were no natural streams observed within the 500 m radius of the Project area. The closest Sub-Quaternary Reaches (SQRs) are C23D-01384, located approximately 4.6 km North of the project and C23E-01368, located approximately 6 km Northwest of the Project respectively (Table 5-1).

Table 5-1 - Watercourses associated with the Project

WMA	Primary Drainage	River	SQR	Stream Order
Vaal Water Management	C	Wonderfonteinspruit	C23E-01384	2
		Mooirivierloop River	C23D-01368	2
WMA = Water Management Area; SQR = Sub-Quaternary Reach				

5.1.2 PRESENT ECOLOGICAL STATE, IMPORTANCE AND SENSITIVITY

Table 5-2 provides the DWS (2016) SQR summary, including the PES (Present Ecological State) for the associated watercourses. The Wonderfonteinspruit extends across the C23D and C23E quaternary catchments, it is approximately 19 km long and is expected to host a total of 3 fish species and 16 aquatic macroinvertebrates taxa. The PES of this system has been reported as *Largely Modified*.

The Mooirivierloop River within the C23E quaternary catchment is approximately 12.8 km and expected to host a total of 3 fish species and 30 aquatic macroinvertebrates taxa. The PES of this system has also been reported as *Largely Modified*.

Table 5-2 - Present Ecological Status of the associated river systems

River Name	SQR Code	PES	Description	Ecological Importance	Ecological Sensitivity
Wonderfonteinspruit	C23D-01384	D	Largely Modified	Low	Low
Mooirivierloop River	C23E-01368	D	Largely Modified	Low	Low
SQR = Sub-Quaternary Reach; PES = Present Ecological State					

5.1.3 STRATEGIC WATER RESOURCES

There is no surface water strategic water source area (SW-SWSA) occurring within of in close proximity to the Project Area.

5.1.4 NATIONAL FRESHWATER ECOSYSTEM PRIORITY AREAS

The National Freshwater Ecosystem Priority Areas (NFEPA) project represents a collaboration of multiple organisations including the South African National Biodiversity Institute (SANBI), Council for Scientific and Industrial Research (CSIR), Water Research Commission (WRC), Department of Environmental Affairs (DEA), Department of Water Affairs (DWA), Worldwide Fund for Nature (WWF), South African Institute of Aquatic Biodiversity (SAIAB) and South African National Parks (SANParks). (Water Research Commision, 2011).

The project is aimed to "*provide guidance on how many rivers, wetlands and estuaries, and which ones should remain in a natural or near-natural condition to support the water resource protection goals of the National Water Act (Act 36 of 1998), the National Environmental Management: Biodiversity Act (Act 10 of 2004) and the National Environmental Management: Protected Areas Act (Act 57 of 2003)*" (Water Research Commision, 2011)

Based on the current outputs of the NFEPA project (Water Research Commision, 2011), the study site is situated within an upstream management area, as shown in Figure 5-2. Upstream management areas are areas in a sub-quaternary catchment level in which human activities need to be managed to prevent degradation of downstream FEPAs and Fish support Areas (Nel et al., 2011; WRC, 2011).

5.1.5 NATIONAL WETLAND MAP 5

The South African National Wetland Map version 5 (NWM5) portrays the most up-to-date spatial data for the extent and types of estuarine and inland aquatic (freshwater) ecosystems of South Africa (Van Deventer et al., 2019). The project strives to conserve a sample of freshwater ecosystems and diversity of species as well as the ecosystem processes which generate and maintain diversity (Nel et al., 2011).

The proposed project area in relation to wetlands mapped as part of the National Wetland Map 5 project is illustrated in the DEFF Screening Tool (Figure 4-1). The NWM5 highlighted an individual depression wetland within the central regions of the proposed development footprint and multiple wetlands (depression and seepage wetlands) within the surrounding landscape. Therefore, a field survey was conducted to determine the accuracy of the NWM5 data.

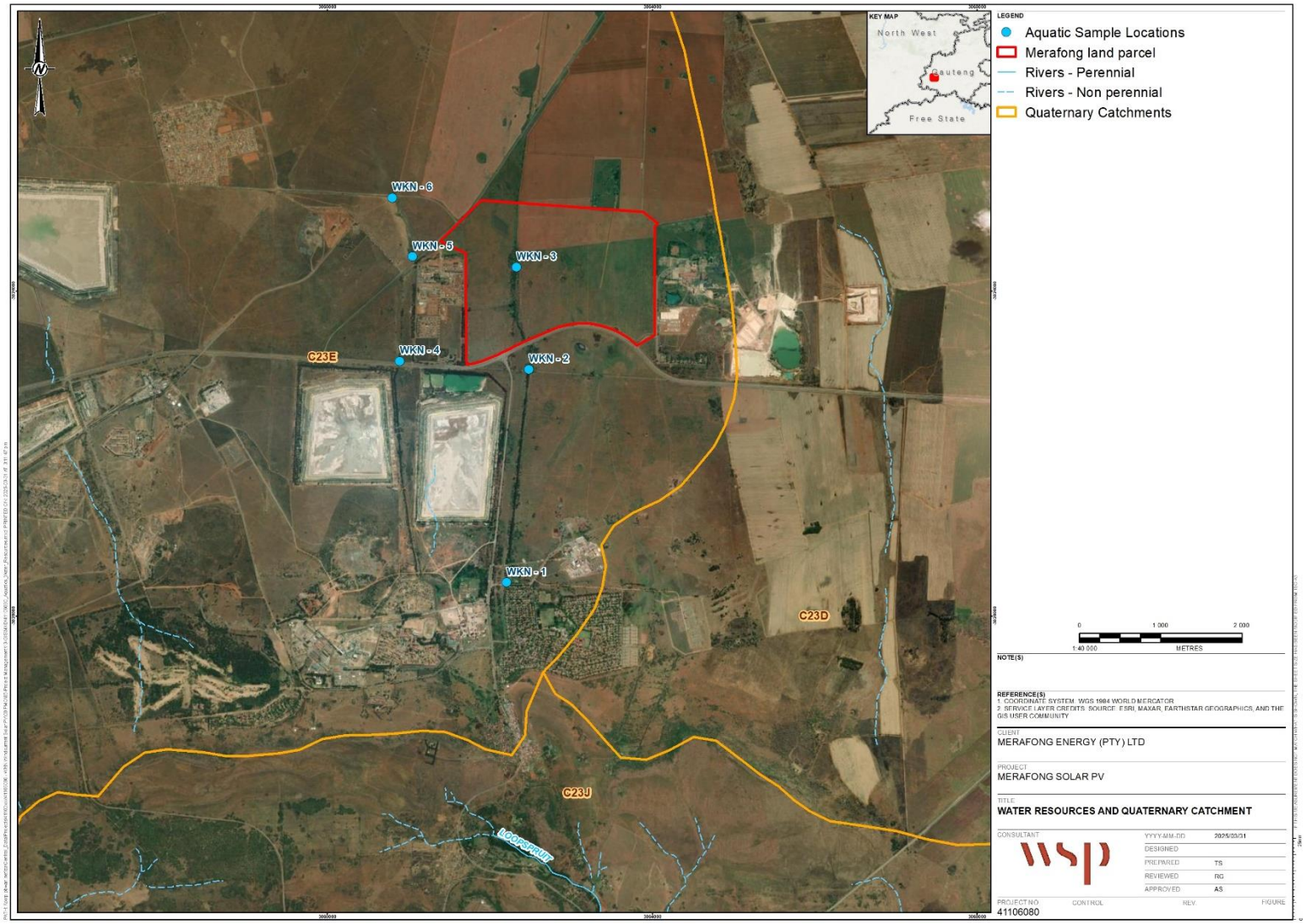

Figure 5-1 - Watercourses and quaternary catchments associated with the project

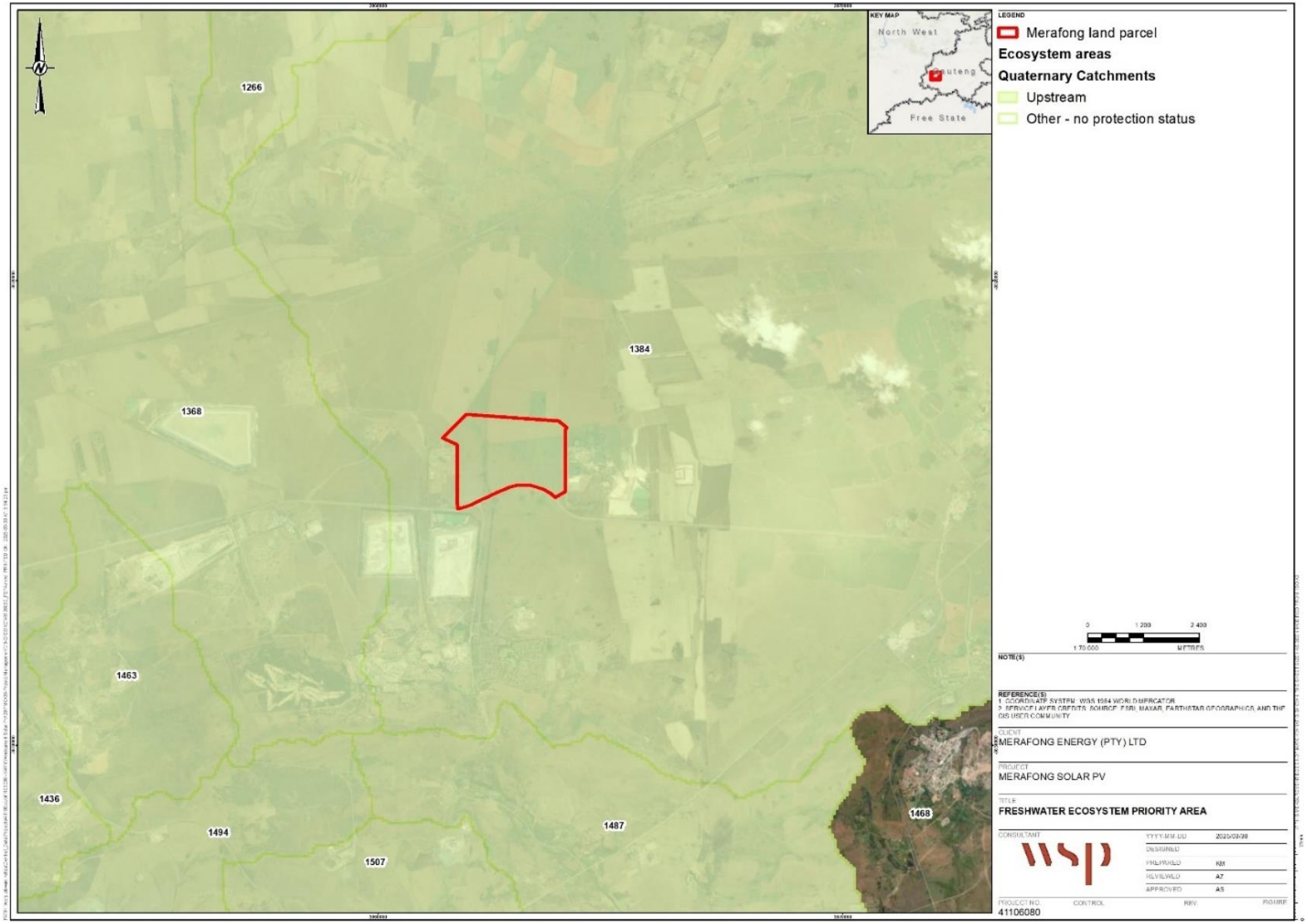

Figure 5-2 - Freshwater Ecosystem Priority Areas (FEPA)

5.2 FIELD VERIFICATION

Site sensitivity field verification was conducted on the 15th August 2024 representative of the low flow survey. A high flow survey was deemed unnecessary due to the lack of natural streams within the project area. A total of six sites associated with the proposed project area were accessed. Three sites (WKN1, WKN2 and WKN3) were located in a channel which runs through the proposed PV structures, whilst three sites (WKN4, WKN5 and WKN6) were located to the east of an industrial complex located adjacent to the proposed PV structures (Figure 4-2).

5.2.1 GENERAL HABITAT CONDITIONS

All assessed sites were located within artificial channels which are paved at the upstream sections. These channels receive stormwater from the East Village residential area and surface runoff from the catchment.

Site WKN1 was located in a canal with a concrete bed. Water levels and flow were low at this site. Site WKN2 was located below a culvert, downstream of WKN1. Water levels and flow were low at this site, with Eucalyptus trees growing along the banks. It was noted that water flow does not extend throughout the channel as the most downstream site (WKN3) was dry and characterised by Eucalyptus trees along the banks.

Site WKN4 is located in a separate channel, below a culvert. This site was characterised by *Phragmites sp.,* with very low water levels. Similarly, site WKN5 was located below a culvert and characterised by *Phragmites sp* within the channel. Site WKN6, located downstream of WKN5, was characterised by a high abundance of algae in shallow, stagnant water.

Figure 5-3 below presents site photographs taken during the site verification.

Figure 5-3 - General habitat conditions

5.2.2 *IN SITU* WATER QUALITY

An *in situ* assessment of the water quality was undertaken within sites with sufficient water levels and habitat to support aquatic biota. The variables temperature, pH, electrical conductivity and dissolved oxygen were measured onsite by means of portable water meters. The obtained data were referenced against various water quality guidelines shown in Table 5-3 and the results are presented in Table 5-4.

These data are important to assist in the interpretation of biological results due to the direct influence water quality has on aquatic life forms and provide an indication of the physico-chemical status of the water at a sampling site, at the time of the survey.

Table 5-3 - Sources for the recommended water quality guidelines for aquatic ecosystems

Variable	Source	Guideline limit
Temperature	South African Water Quality Guidelines: *Aquatic Ecosystems (Volume 7)* (Department Of Water Affairs And Forestry, 1996)	5 – 30 ˚C
pH		6 – 8
Dissolved Oxygen % Saturation		80 – 120 %
Dissolved Oxygen concentration	Minimum Dissolved Oxygen concentration for aquatic macroinvertebrates (Nebeker et al., 1996)	> 5 mg/ℓ
Electrical Conductivity	Conductivity guideline value of 500 µS/cm stipulated in U.S. U.S. Environmental Protection Agency (2010)	< 500

The *in situ* water quality measurements were taken at two of the six sites. Only these sites (WKN2 and WKN5) were observed to consist of flowing water at the time of the survey. Electrical conductivity and dissolved oxygen levels were found to exceed the recommended guideline levels at site WKN2 whilst only the electrical conductivity exceeded the recommended guideline at site WKN5 (Table 5-4).

These high electrical conductivity values were consistent with the suspected contaminated water input from the surrounding mining and associated activities. The low dissolved oxygen levels at site WKN2 were suspected to be linked to sewage pollution as a nearby manhole was observed to have been leaking prior to the time of the field survey (Figure 5-4). The high organic waste in sewage and aerobic decomposition of organic material by micro-organisms led the excessive depletion of dissolved oxygen at this site.

Table 5-4 - *In situ* water quality data

Sites	Temp. (ºC)	pH	EC (µ/cm)	DO (mg/ℓ)	DO %
TWQR	**5 - 30º**	**6.5 – 9.0**	**<500**	**>5.0**	**80 - 120**
WKN 2	10.6	6.96	910	1.14	12
WKN 5	10.3	7.31	806	7.99	89
Red text indicated exceedance of a guideline value					

Figure 5-4 - Blocked manhole discharged into the stormwater channel

5.2.3 AQUATIC MACROINVERTEBRATES

The South African Scoring System version 5 (SASS5) protocol could not be conducted as it is not designed to be used in artificial channels (Dickens & Graham, 2002). However, the following aquatic macroinvertebrate taxa/families were noted on-site

Site WKN2:

- Chironomidae (Midges)

Site WKN5:

- Oligochaeta (Earthworms)
- Coenagrionidae (Sprites and blues)
- Gomphidae (Clubtails)
- Gyrinidae* (Whirligig beetles)
- Libellulidae (Darters/Skimmers)
- Nepidae (Water scorpions)
- Dytiscidae/Noteridae* (Diving beetles)
- Ceratopogonidae (Biting midges)
- Chironomidae (Midges)
- Tipulidae (Crane flies)
- Physidae* (Pouch snails)

None of the above macroinvertebrates are species of conservation concern and or sensitive to pollution.

Overall, no significant impacts are anticipated as a result of the proposed Project due to the following factors: 1) nature of the project, 2) distance between the watercourses and the proposed project location and 3) physical barriers between the watercourses and the proposed project (including farmlands, roads. Industrial and residential areas).

5.2.4 WETLAND HABITAT

The site survey was undertaken to confirm, or refute, the presence of wetland habitat on site, and if found to be present, to accurately delineate the wetland boundaries within the proposed development site. As a consequence of conducting the field survey during winter, at a time when the vegetation was burnt, and due to extensive cultivation across the site, no obligate or facultative wetland plant species were found on site. Therefore, soil and terrain indicators were used as the primary means to identify the presence of wetland features. Although the wetland survey was conducted during the winter months, the terrestrial biodiversity SSV (Hawkhead Consulting, 2025) was conducted during both winter and summer periods, but did not identify the present of any hydrophilic wetland vegetation or mesic grassland habitats within the proposed development site.

The site survey confirmed that the proposed development site is void of natural vegetation (Figure 5.2). The red soils that characterize the site are indicative of terrestrial lands with high iron content. The surrounding landscape has been significantly transformed due to anthropogenic influence. The dominant land use towards the northern regions of the proposed development site consists of agricultural fields in the form of maize plantations. To the west and east are industrial zones (i.e. Kwastina Corrobrik Factory). The main R501 road network is situated along the southern boundary of the study area.

No wetlands were found to occur within the proposed project area. Wetland habitat was identified outside of the project area, in the surrounding landscape.

Figure 5-5 - The proposed development site under cultivation and void of natural vegetation

6 SITE SENSITIVITY VERIFICATION OUTCOME

The findings of the site sensitivity verification exercise, based on the data gathering activities conducted to date (i.e. review and consolidation of available desktop data, site sensitivity verification site visit), together with the anticipated reporting requirement as stipulated by the various protocols and standards, are summarised below.

Theme	Screening tool sensitivity	Site-based sensitivity	Motivation
Aquatic biodiversity	Very high	Low	The site survey confirmed that no wetland habitat is present within the project area, therefore on-site wetlands according to the NWM5 have incorrectly been designated. No natural rivers/streams are present within the site.

7 CUMULATIVE IMPACTS

The Project Area is located within a predominantly transformed area subjected to mixed land use activities i.e. cultivated fields, an industrial complex, mining facilities and residential areas amongst others. Consequently, existing impacts include habitat fragmentation, roads, and water quality modification within the watercourses (canalized channels).

The proposed Project's contribution to the cumulative impacts upon aquatic biodiversity will be limited to the artificial channel within which sites WKN1, WKN2 and WKN3 are located. Anticipated impacts during the construction phase include sedimentation and water quality modifications. This system was however observed to occur in isolation with no visible connectivity to any other water resources within the catchment. Furthermore, only a single aquatic macroinvertebrate taxon was sampled along this system, therefore the proposed Project's contribution to the cumulative impacts is deemed negligible for the aquatic biodiversity them.

8 REFERENCES

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Appendix A

STANDARDS FOR THE DEVELOPMENT AND EXPANSION OF ELECTRICITY TRANSMISSION AND DISTRIBUTION POWER LINE INFRASTRUCTURE

No	Requirement	Comment/s
B.2. Aquatic Biodiversity	The confirming statement must be prepared by a specialist registered with the SACNASP with relevant expertise in aquatic biodiversity or similar, and must contain, as a minimum, the following information:	
11.	A statement on the duration, date and season of the site sensitivity verification inspection and walkthrough as well as the relevance of the season to the outcome of the confirming statement;	Refer to section 5.2 Field verification data
12	Confirmation that the aquatic biodiversity (flora and fauna) and existing environmental impacts within the final pre-negotiated corridor is low or medium, based on the most recently available desktop data, site sensitivity verification inspection and walkthrough;	Refer to sections • 5: Aquatic biodiversity baseline description • 4.1: Screening tool results • 5.2: General habitat conditions • 5.2: *In-situ* water quality results • 5.2: Aquatic macroinvertebrates • Section 6: Site sensitivity verification outcome
13	Confirmation that impacts after mitigation are acceptable should the final pre-negotiated corridor intersect an area of high or very high aquatic biodiversity sensitivity (as contemplated under paragraph 1.4 (d) or (e));	Refer to section 5: No sensitive areas pertaining to aquatic biodiversity were identified within the proposed LILO and Substation footprint due to the absence of natural wetlands, or rivers/streams within the study area. Therefore, no significant impacts are anticipated as a result of the proposed Project.
14	Identification of aquatic biodiversity areas to be avoided within the final pre-negotiated corridor, including buffers;	Refer to section 5: There are no natural rivers/streams within the study area. Therefore, no significant impacts are anticipated as a result of the proposed Project.
15	An aquatic biodiversity sensitivity map, generated by the screening tool and enhanced by any relevant additional information obtained from the walkthrough or any other sources, identifying any areas of sensitivity including a buffer in which no development must take place, overlaid with the proposed development footprint (i.e. pylon placement as well as supporting and associated infrastructure);	• 4.1: Screening tool results • 5.2: General habitat conditions • 5.2: *In-situ* water quality results • 5.2: Aquatic macroinvertebrates • Section 6: Site sensitivity verification outcome

No	Requirement	Comment/s
16	A description on how the identified environmental sensitivity, relating to aquatic biodiversity, has been considered in determining the final pre-negotiated corridor;	No significant impacts on aquatic biodiversity are anticipated as a result of the proposed Project due to the absence of natural rivers/stream in the project area, as well as due to the following factors: 1) nature of the project, 2) distance between the natural watercourses and the proposed project location and 3) physical barriers between the natural watercourses and the proposed project (including farmlands, roads, industrial and residential areas).
17	A description on how the identified engineering constraints, relating to aquatic biodiversity, have been considered in determining the final pre-negotiated corridor;	No engineering constraints have been identified.
18	A description of the implementation of the mitigation hierarchy in order to determine the *final pre-* negotiated corridor;	Refer to section 6: The proposed LILO and Substation footprint is located within the site assessed for the proposed Merafong PV Solar Facility. This entire site was rated as having Low sensitivity with respects to the Aquatic Biodiversity theme.
19	How the inputs made by I&APs were considered when determining the final pre-negotiated corridor; and	N/A
20	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	Refer to section 6: Site sensitivity outcome
	b. where required, specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr.	N/A

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