



**Aquatic Biodiversity Compliance Statement for the
proposed development of a solar farm, on farm nr:
438, Brakfontein Estate, Citrusdal, Western Cape**

**Cederberg Local Municipality, Cederberg District
Municipality, Western Cape Province, South Africa**

4/16/2026

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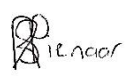
Project Title	Citrusdal Solar Farm	
Report Name	Aquatic Biodiversity Compliance Statement for the proposed development of a solar farm, on farm nr: 438, Brakfontein Estate, Citrusdal, Western Cape	
Specialist Theme	Aquatic Biodiversity Theme	
Project Reference	Citrusdal Solar Farm	
Date	6 May 2026	
Responsible Specialist	Divan van Rooyen (Pri. Sci. Nat. 151272)	
Reviewer	Rian Pienaar (Pr. Sci. Nat. 135544)	
Declaration	The Biodiversity Company and its associates act as independent consultants in accordance with the requirements of the South African Council for Natural Scientific Professions. We confirm that we have no affiliation with, or vested financial interest in, the proponent, other than remuneration for professional services rendered in terms of the Environmental Impact Assessment Regulations. We have no conflicting interests in the proposed activity or any secondary developments arising from the authorisation of the project, and our work has been undertaken objectively and in accordance with accepted scientific principles.	

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1 Introduction

1.1 Background

The Biodiversity Company was commissioned to conduct a wetland baseline and impact assessment in support of the environmental authorisation for the proposed development of a solar farm, on farm nr: 438, Brakfontein Estate, Citrusdal, Western Cape Province. The project is located approximately 12 km north of Citrusdal in the Cederberg Local Municipality, Cederberg District Municipality within the Western Cape Province (Figure 1-1). A 500 m area has been demarcated for the project to facilitate the identification of wetlands within the regulatory zone, this area is referred to as the Project Area of Influence (PAOI) (Figure 1-2).

This assessment was conducted in accordance with the amendments to the Environmental Impact Assessment Regulations, 2014 (GNR 326, 7 April 2017) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA). The approach has taken cognisance of the recently published Government Notices (GN) 320 (20 March 2020): *“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 the National Environmental Management Act, 1998, when applying for Environmental Authorisation”* (Reporting Criteria).

This report, after taking into consideration the findings and recommendation provided by the specialist herein, should inform and guide the Environmental Assessment Practitioner (EAP) and regulatory authorities, enabling informed decision making with regards to the ecological viability of the proposed development and related activities.

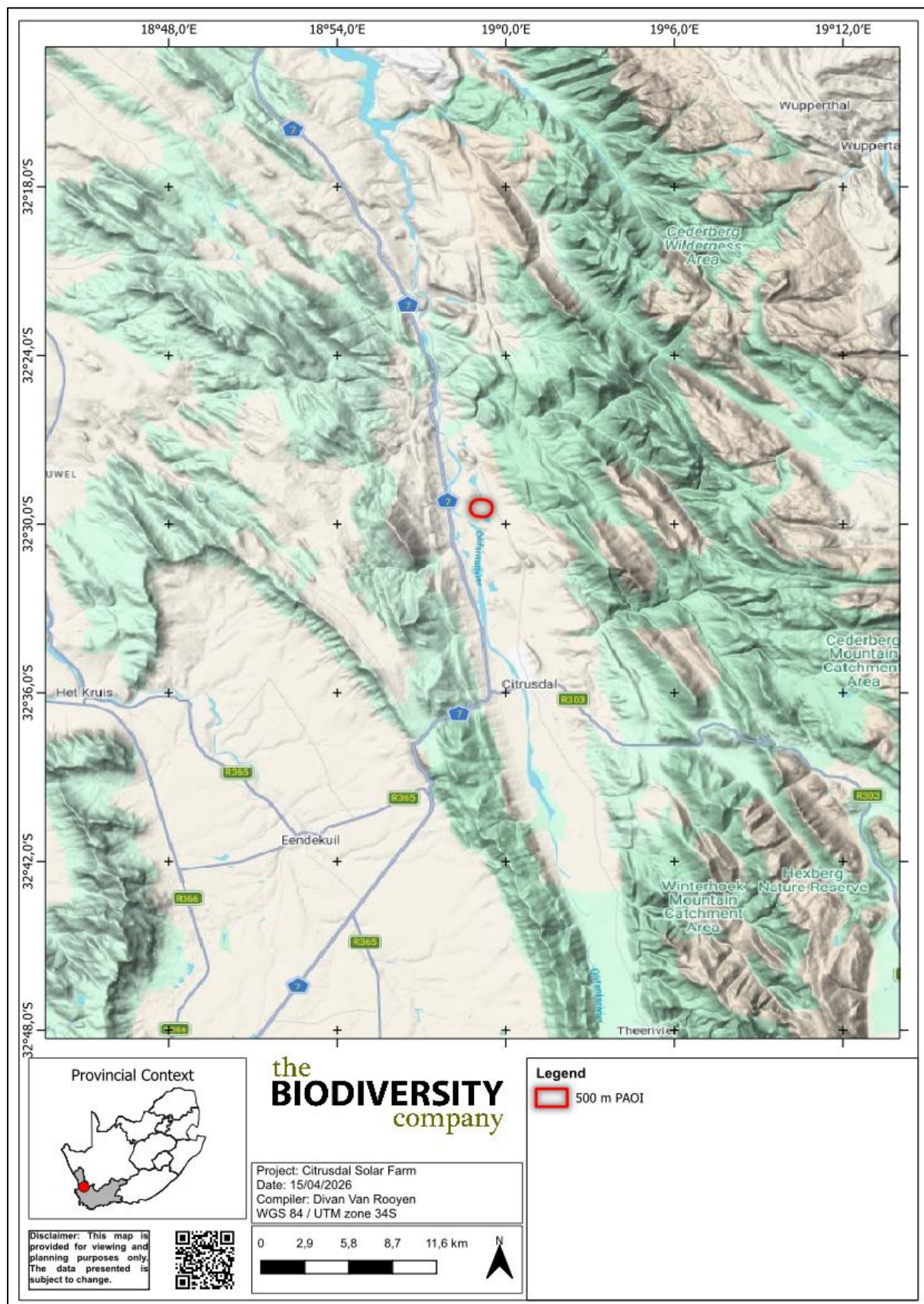


Figure 1-1 Location of the proposed project in relation to nearby towns

1.2 Scope of Work

The following tasks were completed in fulfilment of the terms of reference for this assessment:

- A desktop assessment of available and related datasets to provide context of the freshwater biodiversity of the project area and to indicate potential wetland areas;
- A field survey to identify wetland areas within the project area;
- The delineation, classification and assessment of wetlands within 500 m of the project area;
- The provision of recommendations relevant to associated impacts; and
- Report compilation detailing the baseline findings.

1.3 Project Description

The following description is as per information provided by Sillito Environmental Consulting (2026).

The project relates to the development of a solar photovoltaic (PV) energy facility at Mouton Citrus near Citrusdal in the Western Cape. The site is located within the Cederberg Municipal area (Figure 1-2).

The proposed development comprises both ground-mounted and rooftop-mounted solar PV infrastructure, together with associated electrical infrastructure and energy storage. The layout indicates a ground-mounted PV component with a capacity of approximately 2.03 MWp DC/1.75 MWac, as well as a rooftop PV component of approximately 1.15 MWp DC/1 MWac. In addition, the development includes a Battery Energy Storage System (BESS) with a capacity of 5 MWh and associated power conversion systems, inverters, medium-voltage substations, and underground cabling.

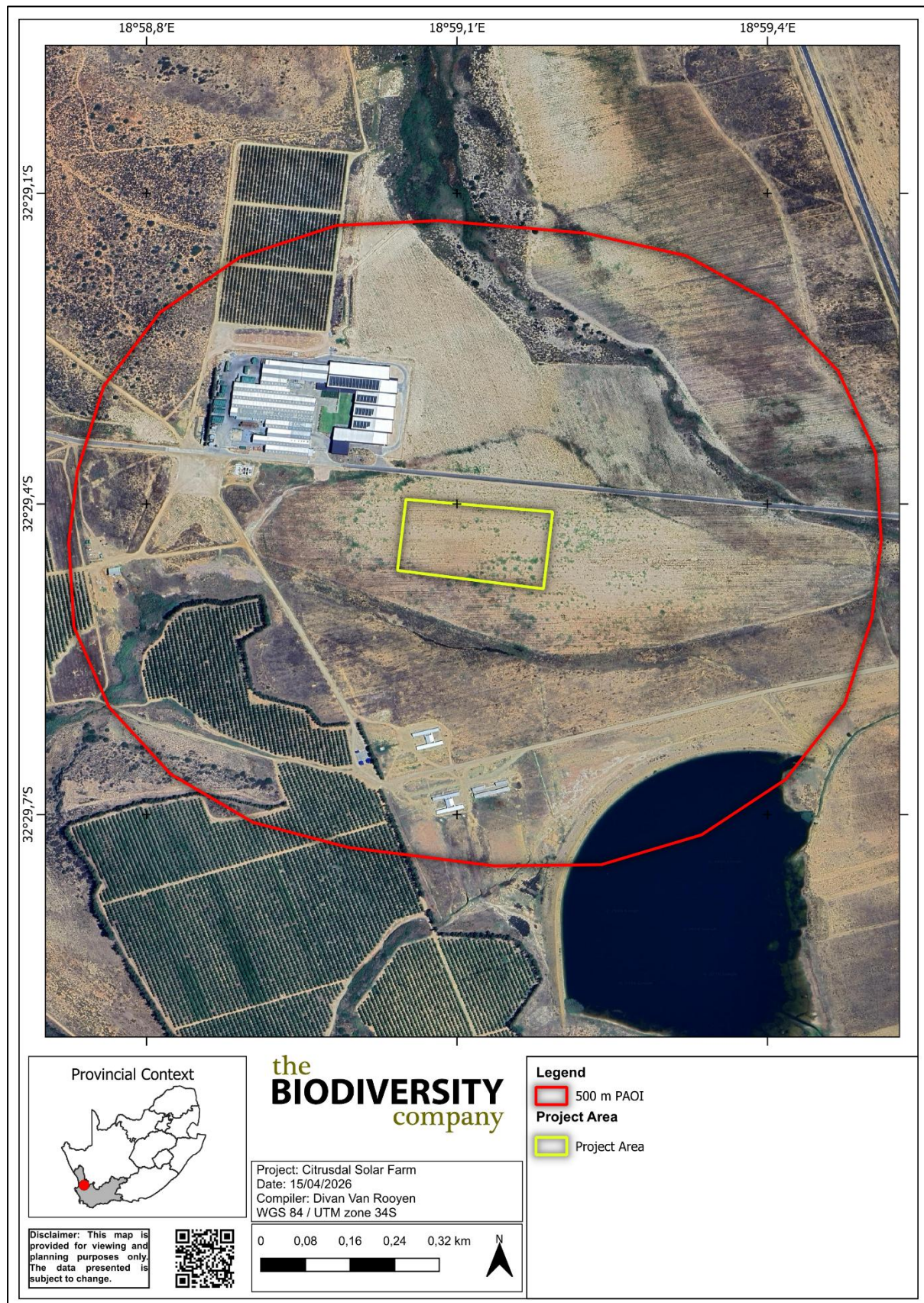


Figure 1-2 Proposed project site and project area of influence

1.4 Key Legislative Requirements

The legislation, policies and guidelines listed below in Table 1-1 are applicable to the current project. The list below, although extensive, may not be complete and other legislation, policies and guidelines may apply in addition to those listed below.

Table 1-1 A list of key legislative requirements

Region	Legislation / Guideline	Comment
National	National Environmental Management Act (Act No. 107 of 1998) (NEMA)	To provide for the effective protection and controlled utilisation of the environment and for matters incidental thereto.
	NEMA: Environmental Impact Assessment Regulations (2014) (GNR 326, 7 April 2017), Appendix 6 requirements	Minimum content for specialist reports.
	NEMA: Government Notices (GN) 320 (20 March 2020) and GN 1150 (30 October 2020)	The minimum criteria for reporting. Protocol for the specialist assessment and minimum report content requirements.
	The National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEMBA), Threatened or Protected Species Regulations	The protection of species and ecosystems that warrant protection.
	National Environmental Management: Waste Act (Act No. 59 of 2008)	The regulation of waste management to protect the environment.
	National Water Act (Act No. 36 of 1998) (NWA)	To provide for the regulation of water uses.
	NWA: Government Notice (GN) 4167 (previously GN 509 of 2016 and GN 3139 of 2023)	Water Use Licence (WUL) in terms of Section 21(c) & (i) water uses and the provision to apply for a General Authorisation subject to usage and outcome of the Risk Assessment Matrix.
	NEMBA: Alien and Invasive Species Regulations (2014) (GNR R598, 1 August 2014)	The regulation and management of alien invasive species.
Provincial	Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) (CARA)	To provide for control over the utilisation of the natural agricultural resources, including the vegetation and the combating of weeds and invader plants.
	Draft Western Cape Biodiversity Bill, 2019	To provide for the framework and institutions for nature conservation and the protection, management and sustainable use of biodiversity and ecosystems in the Province; and for matters incidental thereto.
	Western Cape Biodiversity Sector Plan (WCBSP) (DEADP, 2017)	The spatial designation of conservation areas and targets within the province.

1.4.1 National Water Act (NWA, 1998)

The DWS is the custodian of South Africa's water resources and therefore assumes public trusteeship of water resources, which includes watercourses, surface water, estuaries, or aquifers. The National Water Act (Act No. 36 of 1998) (NWA) allows for the protection of water resources, which includes:

- The maintenance of the quality of the water resource to the extent that the water resources may be used in an ecologically sustainable way;
- The prevention of the degradation of the water resource; and
- The rehabilitation of the water resource.

A watercourse means:

- A river or spring;
- A natural channel in which water flows regularly or intermittently;

- A wetland, lake or dam into which, or from which, water flows; and
- Any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse, and a reference to a watercourse includes, where relevant, its bed and banks.

The NWA recognises that the entire ecosystem and not just the water itself, and any given water resource constitutes the resource and as such needs to be conserved. No activity may therefore take place within a watercourse unless it is authorised by the DWS. Any area within a wetland or riparian zone is therefore excluded from development unless authorisation is obtained from the DWS in terms of Section 21 (c) and (i).

1.4.2 National Environmental Management Act (NEMA, 1998)

The National Environmental Management Act (NEMA) (Act 107 of 1998) and the associated Regulations as amended in April 2017, states that prior to any development taking place within a wetland or riparian area, an environmental authorisation process needs to be followed. This could follow either the Basic Assessment Report (BAR) process or the Environmental Impact Assessment (EIA) process depending on the scale of the impact.

1.5 Legislative Framework

In line with the protocol for the specialist assessment and minimum report content requirements for environmental impacts on freshwater biodiversity, as per Government Notice 320 published in terms of NEMA, dated 20 March 2020: "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 the National Environmental Management Act, 1998, when applying for Environmental Authorisation" – the following has been assumed:

An applicant intending to undertake an activity identified in the scope of this protocol on a site identified on the screening tool as being of:

- "low sensitivity" for aquatic biodiversity, must submit an Aquatic Biodiversity Compliance Statement.

Given that the proposed development areas are located in areas characterised by "Low" aquatic biodiversity sensitivity, the reporting requirements for a compliance statement has been followed.

An Aquatic / Freshwater Compliance Assessment Report must contain the information as presented in Table 1-2 below.

Table 1-2 Aquatic Biodiversity Specialist Compliance Assessment information requirements as per the relevant protocol, including the location of the information within this report

Information to be Included (as per GN 320, 20 March 2020)	Report Section
contact details of the specialist, their SACNASP registration number, their field of expertise and a curriculum vitae	7.3
a signed statement of independence by the specialist	7.2
a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment	3.2
a baseline profile description of biodiversity and ecosystems of the site	3.1.4
the methodology used to verify the sensitivities of the aquatic biodiversity features on the site including the equipment and modelling used where relevant;	7.1

in the case of a linear activity, confirmation from the aquatic biodiversity specialist that, in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase	-
where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr	-
a description of the assumptions made as well as any uncertainties or gaps in knowledge or data	1.6
any conditions to which this statement is subjected	Error! Reference source not found.

A signed copy of the assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

1.6 Assumptions and Limitations

The following aspects were considered as limitations:

- It has been assumed that the spatial files provided to the specialist is accurate;
- The seasonality of the survey is not considered to be a limiting factor with regard to the identification and delineation of wetlands. The results of the assessment are considered conclusive in the opinion of the specialist;
- Freshwater features within the larger 500 m PAOI were delineated and assessed via desktop where inaccessible;
- Areas characterised by external wetland attributes were the focus for this assessment, where potential wetlands were thereafter confirmed by soil form indicators;
- No ecological functional assessments for freshwater features were undertaken given that no wetland systems were identified within the PAOI. Additionally, a natural drainage feature was identified within the proposed project site, which does not meet the requirement for functional assessments due to the absence of wetland vegetation and surface water; and
- The GPS used for water resource delineations is accurate to within five meters. Therefore, the wetland delineation plotted digitally may be offset by a maximum of five meters to either side.

2 Fieldwork

2.1 Freshwater Biodiversity Field Assessment

A field survey for the area was undertaken on the 7th of April 2026, which is a dry-season survey, to identify the presence of freshwater features (wetlands) and to delineate their spatial extents. Furthermore, to determine vegetation composition of the identified features and the likelihood of features to be used as habitat for fauna. The seasonality of the surveys is not considered to be a limiting factor with regard to the identification and delineation of wetlands, the only limitation in this regard would be the identification of certain plant species. The results of the assessment are considered conclusive in the opinion of the specialist.

3 Results & Discussion

3.1 Desktop Dataset Assessment

3.1.1 Climate

The climate for the region is based on the dominant vegetation type which is the Leipoldtville Sand Fynbos (FFd 2) vegetation type. This region is characterised by a winter-rainfall regime, with rainfall peaking between May and August (Figure 3-1). Mean Annual Precipitation (MAP) ranges from approximately 130–450 mm, with an average of about 260 mm, making it one of the drier sand fynbos types. Dense winter mists are common and contribute additional moisture to the system. Temperatures are moderate, with mean daily maximum temperatures reaching about 30.2°C in February and mean daily minimum temperatures dropping to around 6.6°C in July, while frost is infrequent and occurs on only a few days each year (Mucina & Rutherford, 2006).

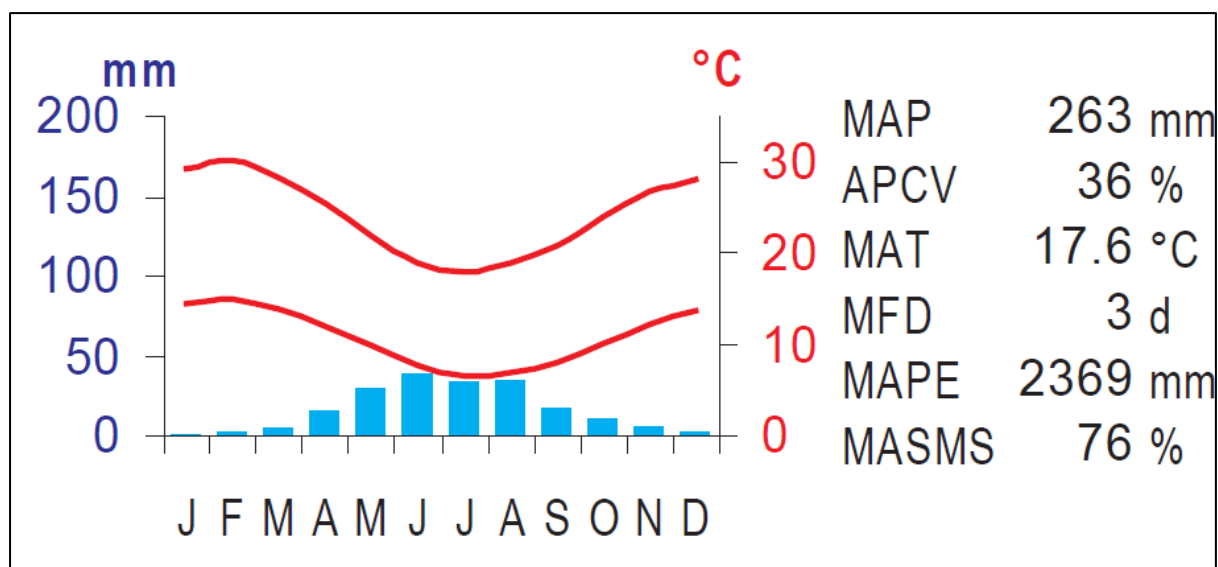


Figure 3-1 Climate for the project area of influence based on the Leipoldtville Sand Fynbos vegetation type (Mucina & Rutherford, 2006)

3.1.2 Soils and Geology

According to the Land Types database (Land Type Survey Staff, 1972 - 2006), the Fb 783 landtype is dominant within the PAOI which predominantly features Glenrosa and/or Mispah soil forms, with the potential presence of other soil types interspersed throughout the landscape. These soils are typically calcareous, indicating the widespread presence of lime across the terrain.

The geology of the region is characterised by deep, acidic, tertiary sands, typically pale yellow to reddish-brown or grey in colour. These are predominantly nutrient-poor, well-drained regic sands derived from ancient aeolian deposits, which form the primary substrate supporting this vegetation type. The dominant land types associated with this unit are mainly the Ai, Hb and Ca groups, reflecting the extensive deep sandy soils that define the landscape (Mucina and Rutherford, 2006)

3.1.3 Hydrological Characteristics

The PAOI falls within the Western Folded Mountains Ecoregion, within the Breede – Olifants Water Management Area (WMA). At a finer scale, within the E10F quaternary catchment. The fine scale hydrological features are presented in the following section.

3.1.3.1 Topographical River Lines and Inland Water Areas

The topographical inland and river line data indicated five non-perennial and one perennial topographical river lines that are present within the PAOI, (Figure 3-2). Inland water areas were also identified within the PAOI, namely one dam.

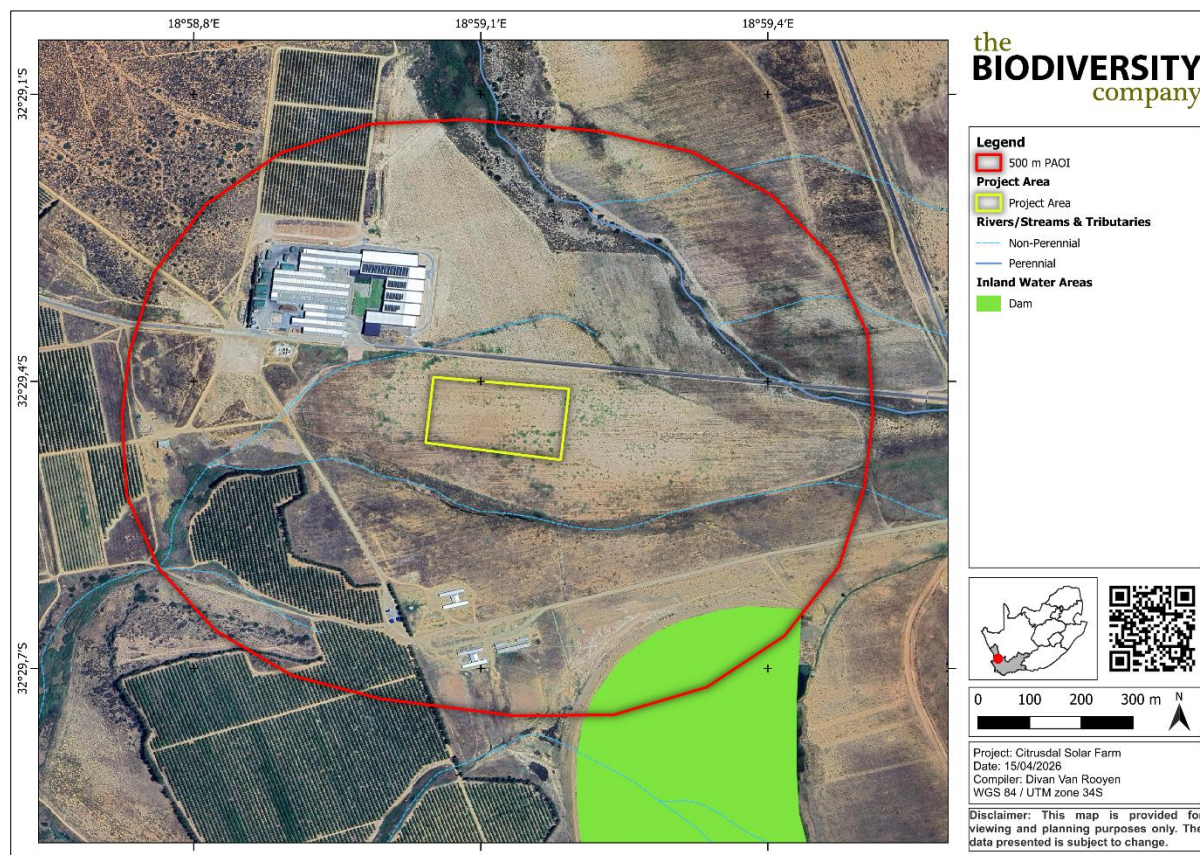


Figure 3-2 Topographical river lines and inland water areas that intersect the project site of influence

3.1.4 Ecologically Important Landscape Features

The GIS analysis pertaining to the relevance of the proposed project to ecologically important landscape features is summarised in Table 3-1. Only features that were identified to be relevant to the proposed project were further discussed.

Table 3-1 Summary of relevance of the proposed project to ecologically important landscape features

Desktop Information Considered	Relevant/Irrelevant	Section
South African Inventory of Inland Aquatic Ecosystems (SAIIAE)	Relevant – PAOI does overlap with SAIIAE wetlands.	3.1.4.1
National Freshwater Priority Area	Relevant – PAOI overlaps with NFEPA wetlands.	3.1.4.3
Provincial Conservation Plan	Relevant – PAOI overlaps with terrestrial CBA 1.	3.1.4.3
Strategic Water Source Areas	Irrelevant – PAOI does not overlap with a SWSA.	-

3.1.4.1 South African Inventory of Inland Aquatic Ecosystems

One SAIIE wetland type, namely a seep wetland, was identified within the 500 m PAOI of the project site (Figure 3-3). The seep wetland present within the PAOI is classified as C – Moderately Modified. In terms of Ecosystem Threat Status, this wetland is classified as Vulnerable category while in terms of Ecosystem Protection Level it falls within the Moderately Protected category.

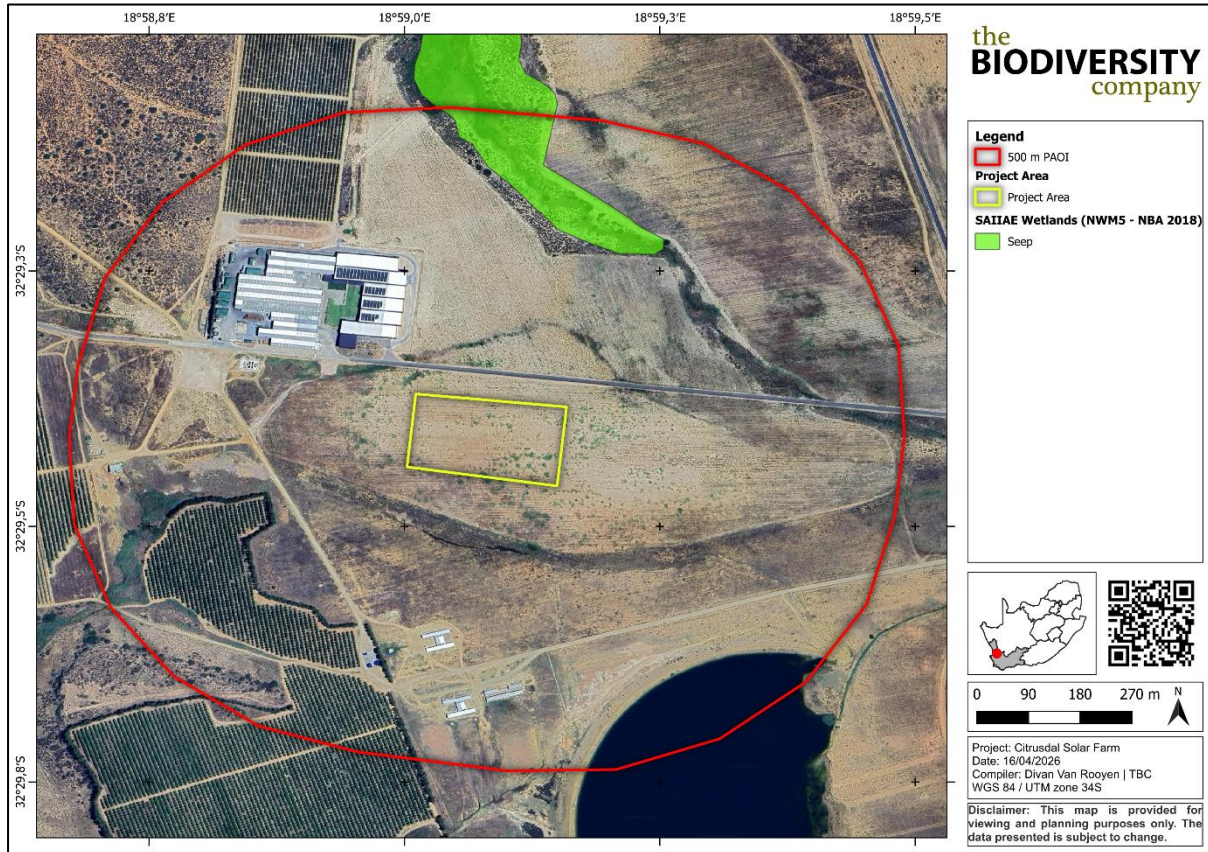


Figure 3-3 South African Inventory of Inland Aquatic Ecosystems with relevance to the project

3.1.4.2 National Freshwater Ecosystem Priority Areas

Two channelled valley-bottom wetlands (CVBs) have been identified within the 500 m PAOI, both of which fall outside the Project site (Figure 3-3). According to the dataset, both CVBs are classified as “Z3 - Heavily to Critically Modified” and are regarded as “Non-Priority” systems. Of these, one channelled valley-bottom wetland is natural, while the other is artificial.

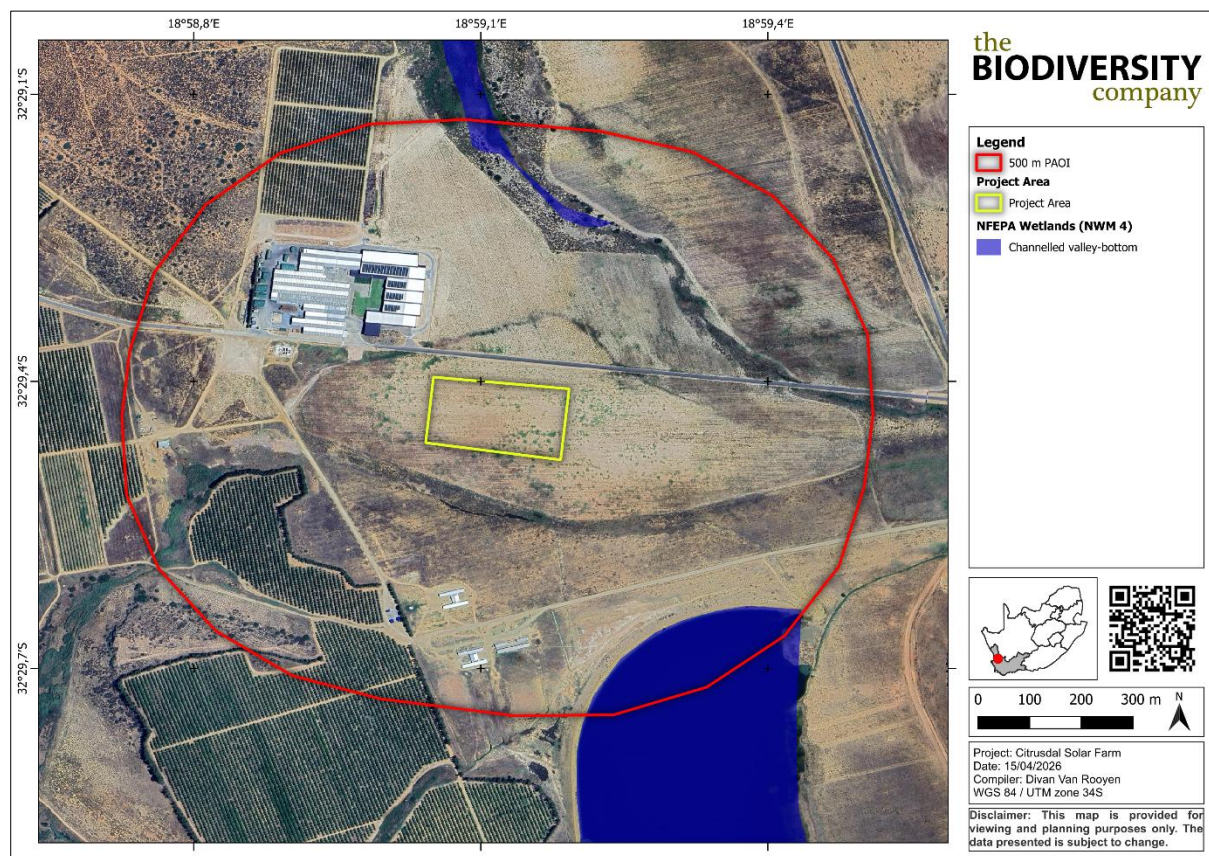


Figure 3-4 Wetland features identified within the project area of influence according to the National Freshwater Ecosystem Priority Areas dataset

3.1.4.3 Western Cape Biodiversity Sector Plan

The conservation of Critical Biodiversity Areas (CBAs) is crucial, in that if these areas are not maintained in a natural or near-natural state, biodiversity conservation targets cannot be met. Maintaining an area in a natural state can include a variety of biodiversity compatible land uses and resource uses (SANBI-BGIS, 2017).

The purpose of the Western Cape Biodiversity Sector Plan (BSP) (2024) is to inform land-use planning and development on a provincial scale and to aid in natural resource management. One of the outputs is a map of Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs). These are classified into different categories, namely CBA 1 areas, CBA 2 areas, ESA areas and Other Natural Areas (ONAs) based on biodiversity characteristics, spatial configuration, and requirements for meeting targets for both biodiversity patterns and ecological processes. The BSP also identifies Protected Areas (PA) within the province.

According to the Western Cape BSP dataset, the PAOI overlaps with CBA 1 (Figure 3-5).

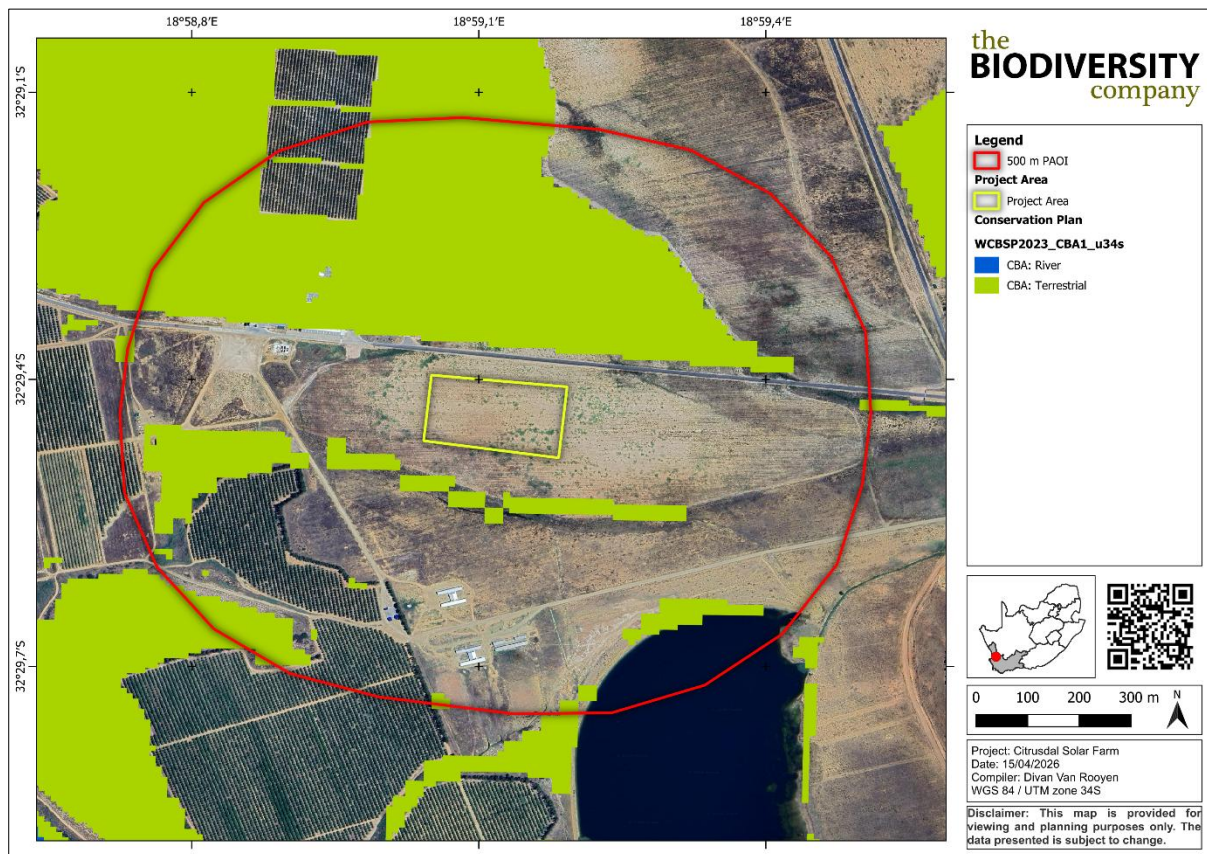


Figure 3-5 Western Cape Biodiversity Sector Plan overlay for the project area of influence

3.2 Wetland Field Survey

3.2.1 Delineation

No natural wetlands were identified within the project site, however, one Hydrogeomorphic unit (HGM) was identified within the PAOI. This HGM unit was identified as a unchannelled valley-bottom. Furthermore, one stormwater channel, one off-channel dam and one dam outlet was also identified within the PAOI (Figure 3-6). None of these features are traversed by the proposed project site. Representative pictures of the features are provided in Figure 3-7.

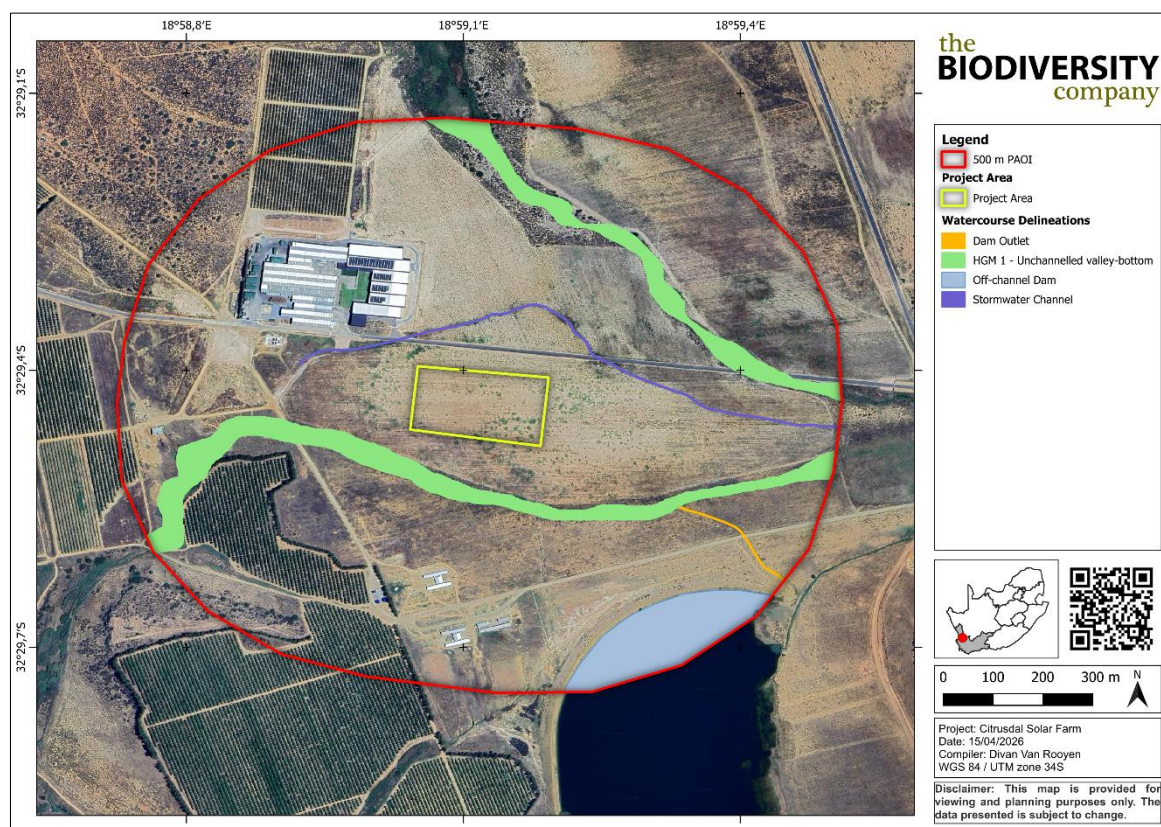


Figure 3-6 Delineation of the different wet areas identified within the project area of influence



Figure 3-7 Photographical evidence of the different features within the PAOI. A) HGM 1 – Unchannelled valley-bottom and B) Terrestrial environment within the project area

3.3 Site Sensitivity Verification

3.3.1 Desktop Ecological Sensitivity

The following is deduced from the National Web-based Environmental Screening Tool (Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014, as amended):

- Aquatic Biodiversity Theme sensitivity as “Low” for the entire project site (Figure 3-8).

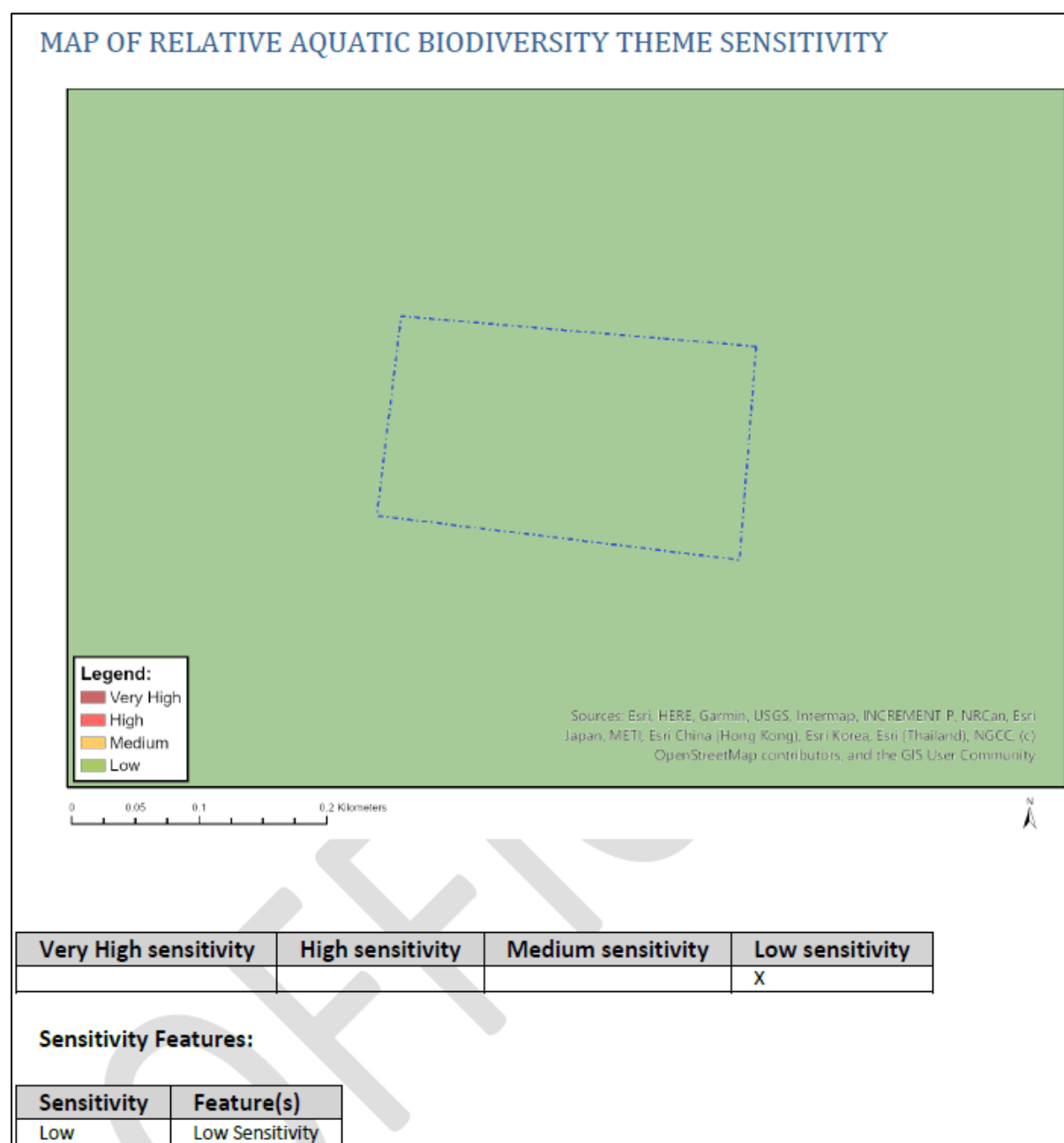


Figure 3-8 Aquatic Biodiversity Theme Sensitivity for the project site

3.3.2 Screening Tool Comparison

The allocated sensitivities for each of the relevant themes are either disputed or validated for the assessed areas in Table 3-2 below. A summative explanation for each result is provided as relevant. The specialist-assigned sensitivity ratings are based largely on the presence of features, their nature and characteristics and, observed functionality.

Table 3-2 Summary of the screening tool vs specialist assigned sensitivities

Aspect	Screening Tool Theme	Environmental Screening Tool Sensitivity	Specialist Sensitivity	Tool Validated or Disputed by Specialist - Reasoning
HGM 1 – Unchannelled valley-bottom	Aquatic Biodiversity Theme	Low	Very High	Disputed – This area is representative of a natural wetland that provides habitat and functionality to support freshwater biodiversity.

Freshwater Buffer	Low	Medium	Disputed – These areas are representative of the wetland area periphery and are of importance in terms of supporting intactness of the features they encompass.
Stormwater Channel Off-channel Dam Dam Outlet	Low	Low	Validated – These areas are not representative of natural wetland habitat and temporarily hold rainwater from man-made alterations to surface topography.
Remaining Area	Low	Low	Validated – No natural watercourses were present.

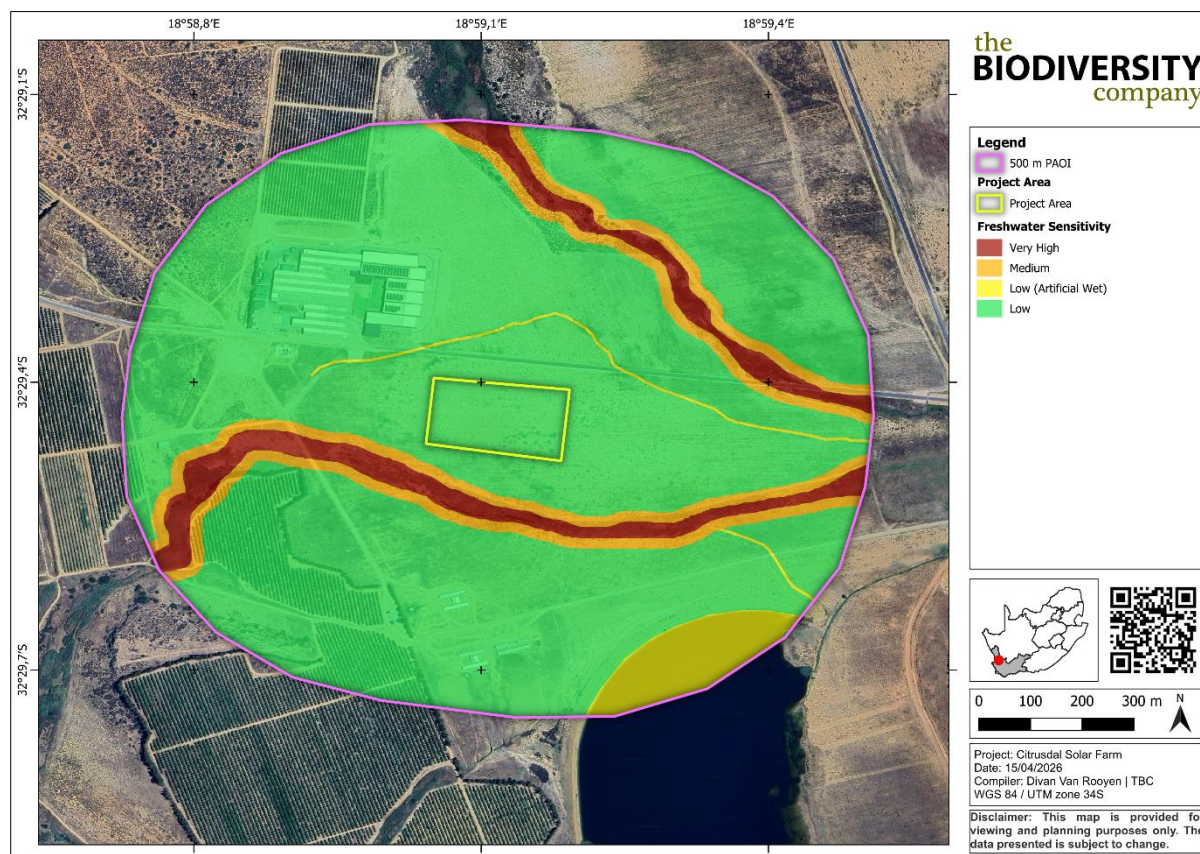


Figure 3-9 Freshwater sensitivity for the project area of influence

4 Buffer Requirements

The buffer requirements for the wetlands were calculated using the Site-Based Tool: Determination of buffer zone requirements for wetland ecosystems (Macfarlane *et al.*, 2014). The recommended buffer zones are presented in Table 4-1 below. The soil type and topography within the wetland and the catchment was considered in this assessment and contributed to the calculated buffer widths.

The post-mitigation buffer for the wetlands was calculated as 20 m (Figure 4-1).

It is advised that any disturbance to the systems be remedied through post-construction rehabilitation of the watercourses which aims to remove alien vegetation, revegetate disturbed and denuded areas within the watercourse and improve the hydrological functioning of the system.

Table 4-1 Buffer requirements

Aspect	Post-Mitigation
HGM 1	20 m

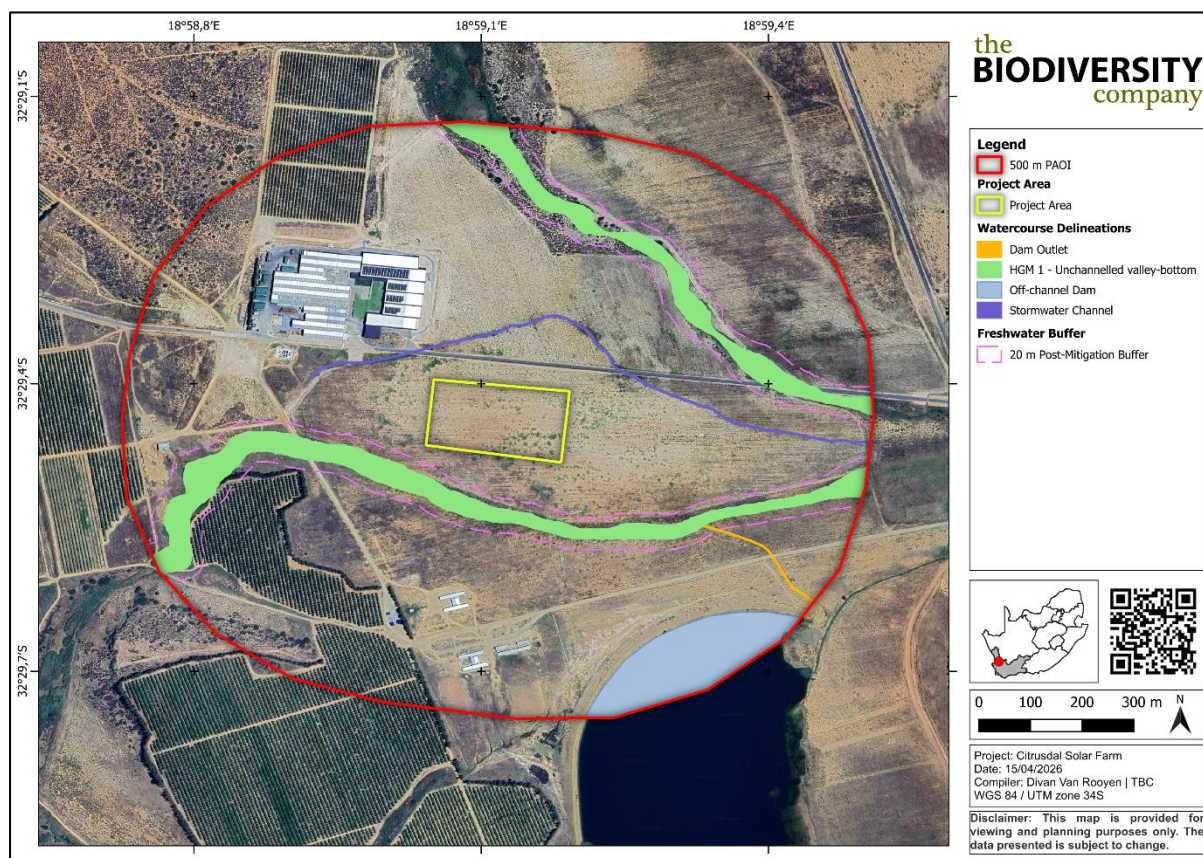


Figure 4-1 Recommended buffers for the identified wetlands

4.1 Regulation Zones

Table 4-2 presents the legislated zones of regulation that would be applicable to the watercourse areas in terms of the NEMA and NWA.

The proposed development activities fall only within the NWA watercourse regulated areas for natural wetlands (Figure 4-2).

Table 4-2 Legislated zones of regulation

Regulatory authorisation required	Zone of applicability
Water Use License Application in terms of the National Water Act, 1998 (Act No. 36 of 1998). GN 4167 as published in the Government Gazette 49833 of 2023. GN 509 as published in the Government Gazette 40229 of 2016.	In accordance with GN 4167 of 2023 and GN 509 of 2016, as it relates to the National Water Act, 1998 (Act 36 of 1998), a regulated area of a watercourse in terms of water uses as listed in Section 21c and 21i is defined as: - the outer edge of the 1 in 100 year flood line and/or delineated riparian habitat, whichever is the greatest distance, measured from the middle of the watercourse of a river, spring, natural channel, lake or dam; - in the absence of a determined 1 in 100 year flood line or riparian area the area within 100 m from the edge of a watercourse where the edge of the watercourse is the first identifiable annual bank fill flood bench; or - a 500 m radius from the delineated boundary (extent) of any wetland or pan in terms of this regulation.

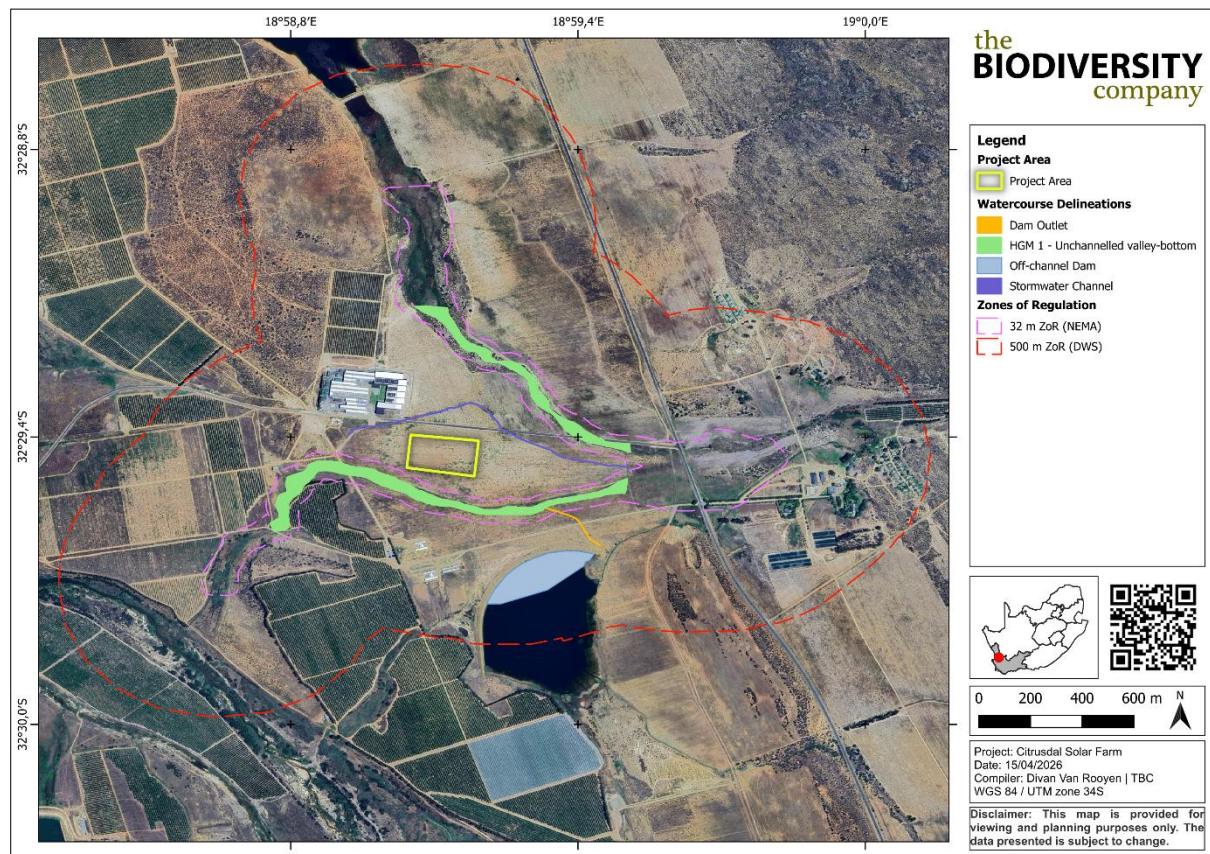


Figure 4-2 Regulation zones applicable to the watercourses identified within the project area of influence

5 Conclusion

No natural wetlands were identified within the project site, however, one Hydrogeomorphic unit (HGM) was identified within the PAOI. This HGM unit was identified as a unchannelled valley-bottom. Furthermore, one stormwater channel, one off-channel dam and one dam outlet was also identified within the PAOI.

The National Web based Environmental Screening Tool has characterised the aquatic theme sensitivity of the project site as “Low”. The site survey confirmed the absence of natural wetlands within the proposed development area. Therefore, the overall aquatic biodiversity theme for the project is determined to be “Low”.

The post-mitigation buffer for the wetlands was calculated as 20 m. Avoidance of these features by permanent infrastructure (excluding linear infrastructure) is sufficient to maintain the ecological processes they support.

5.1 Specialist Opinion

It is the specialist opinion that the proposed development presents no fatal flaws from an aquatic biodiversity perspective and may proceed. No specific conditions are considered necessary beyond the implementation of the recommended mitigation measures.

6 References

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7 Appendix Items

7.1 Appendix A – Methodology

7.1.1 Desktop Dataset Assessment

The desktop assessment was undertaken using Geographic Information System (GIS) to access, view and overlay the latest available related datasets with the project area. The information represented within the datasets was used to develop the relevant digital maps used to identify potentially environmentally sensitive areas. These datasets and their respective dates of publishing are provided below:

- Vegetation Types - Vegetation Map of South Africa, Lesotho and Swaziland (SANBI, 2018 & Mucina and Rutherford 2006);
- Soils and Geology - Land Types Database (Land Type Survey Staff, 1972 - 2006); and
- Topographical Inland Water Areas and River Lines (based on the 1994 1:500 000 topographic maps as per the Chief Directorate of the National Geo-spatial Information).

7.1.1.1 Vegetation Types - Vegetation Map of South Africa, Lesotho and Swaziland

The Vegetation Map of South Africa, Lesotho and Swaziland (SANBI, 2018) is the latest and updated version of the maps published in earlier time such as those presented by Mucina and Rutherford (2006) and those presented in the National Biodiversity Assessment (2011). The map provides spatial details on the representative vegetation of South Africa and is complemented in this report using information from Strelitzia (Mucina & Rutherford, 2006) to provide insight on the landscape features, biogeography, climate, geology, and soils of the project area.

7.1.1.2 Soils and Geology - Land Type Database

The Land Type Survey provides information on the soils, terrain, climate, and geology of areas within South Africa. The data includes the pedological classification of soils and is used in this report to provide insight on the common soil forms associated with aquatic or freshwater systems of a particular area.

7.1.1.3 Topographical River Lines and Inland Water Areas

Topographical Inland Water Areas and River Lines for South Africa are based on the topographic maps dated 1994 as per the National Geo-spatial Information. These datasets are used in this report to provide insight on potential wetland areas and serves to highlight the location and extent of drainage features, dams, wetlands, reservoirs and other relevant inland waterbodies.

7.1.1.4 Ecologically Important Landscape Features

The datasets listed below were incorporated to establish the relation between the project and ecologically important or sensitive freshwater entities. Emphasis was placed around the following spatial datasets:

- National Freshwater Priority Areas, Rivers and Wetlands, 2011 (Nel *et al.*, 2011);
- Strategic Water Source Areas, 2021 (Lötter & Le Maitre, 2021);
- Western Cape Biodiversity Sector Plan; and
- Strategic Water Source Areas.

7.1.1.4.1 The South African Inventory of Inland Aquatic Ecosystems

The South African Inventory of Inland Aquatic Ecosystems (SAIIAE) was established during the 2018 NBA, the SAIIAE is a collection of spatial data layers that represent the extent of river and inland wetland ecosystem types as well as the pressures on these systems. The same two headline indicators, and their associated categorisations, are applied as with the terrestrial ecosystem NBA, namely Ecosystem Threat Status and Ecosystem Protection Level. The Ecosystem Threat Status of river and wetland ecosystem types are based on the extent to which each ecosystem type had been altered from its natural condition.

7.1.1.4.2 National Freshwater Ecosystem Priority Areas, Rivers and Wetlands

In an attempt to better conserve aquatic ecosystems, South Africa has categorised its inland aquatic systems according to set ecological criteria (i.e., ecosystem representation, water yield, connectivity, unique features, and threatened taxa) to identify Freshwater Ecosystem Priority Areas (FEPAs). The FEPAs are intended to be conservation support tools and it is envisioned that they will guide the effective implementation of measures to achieve the National Environment Management: Biodiversity Act's biodiversity conservation goals (Nel *et al.*, 2011).

7.1.1.4.3 Strategic Water Source Areas

SWSAs are defined as areas of land that supply a disproportionate quantity of mean annual surface water runoff in relation to their size, and therefore contribute considerably to the overall water supply of the country, as well as national aquatic and terrestrial biodiversity resources. These are considered key ecological infrastructure assets and the effective protection of SWSAs is vital for national security because a lack of water security will compromise national security and human wellbeing on all levels.

7.1.2 Wetland Field Survey

7.1.2.1 Identification and Mapping

The wetland areas were delineated in accordance with the DWAF (2005) guidelines, a cross section is presented in Figure 7-1. The outer edges of the wetland areas were identified by considering the following four specific indicators:

- The Terrain Unit Indicator helps to identify those parts of the landscape where wetlands are more likely to occur;
- The Soil Form Indicator identifies the soil forms, as defined by the Soil Classification Working Group (1991), which are associated with prolonged and frequent saturation.
- The soil forms (types of soil) found in the landscape were identified using the South African soil classification system namely; Soil Classification: A Taxonomic System for South Africa (Soil Classification Working Group, 1991);
- The Soil Wetness Indicator identifies the morphological "signatures" developed in the soil profile as a result of prolonged and frequent saturation; and
- The Vegetation Indicator identifies hydrophilic vegetation associated with frequently saturated soils.

Vegetation is used as the primary wetland indicator. However, in practise the soil wetness indicator tends to be the most important, and the other three indicators are used in a confirmatory role.

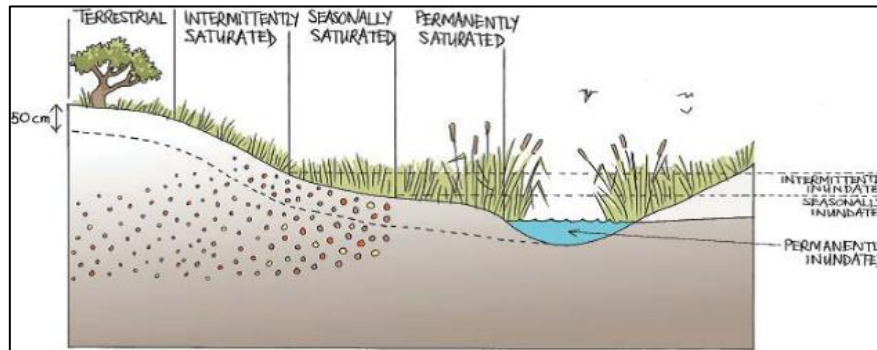


Figure 7-1 Cross section of a wetland, indicating how the soil wetness and vegetation indicators respond to changes in topography (Ollis et al. 2013)

7.1.3 Site Sensitivity Verification

The baseline aquatic / freshwater sensitivity of the project area was obtained using the National Web-based Environmental Screening Tool (Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014, as amended). The allocated sensitivities for each of the relevant themes are either disputed or validated for the assessed areas based on the specialist assigned Ecological Importance and Sensitivity of the different systems (where applicable), with consideration been given to the presence of observed or likely sensitive fauna and flora.

7.1.4 Risk Screening

A risk screening procedure which considers the general topography of the proposed area in conjunction with the spatial proximity of the natural wetlands to the proposed areas of development was used to determine the 'Risk Status' of the delineated wetlands. Two broad categories are included in the screening process which classify wetlands to be 'At Risk' or 'Not at Risk'.

7.2 Appendix C – Specialist Declaration of Independence

Declaration

I, Divan van Rooyen, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.



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April 2026

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De:

South Africa

