SITE SENSITIVITY AND VERIFICATION REPORT

SCOPE AND PURPOSE

Regulation 16(1)(b)(v) of the Environmental Impact Assessment Regulations (GNR 982 promulgated under the National Environmental Management Act (Act 107 of 1998-NEMA)), requires that a Screening Report generated by the national web-based environmental screening tool for the specific site and activity must accompany any application for Environmental Authorization.

The Screening Report identifies preliminary development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmentally sensitive features on the site based on the site sensitivity screening. On the basis of the sensitivities identified in the site sensitivity screening, a list of preliminary specialist studies required to be considered in the Impact Assessment process are provided.

Prior to commencing with a specialist assessment identified in the Screening Report, the current use of the land and the environmental sensitivity of the site, must be confirmed by undertaking a site sensitivity verification. The site sensitivity verification must be undertaken by an environmental assessment practitioner or a specialist. The site sensitivity verification must be undertaken through the use of:

a) *a desk top analysis, using satellite imagery;*
b) *a preliminary on-site inspection; and*
c) *any other available and relevant information.*

This Site Sensitivity and Verification Report (SSVR) is a record of the outcome of the site sensitivity verification in compliance with the requirements of 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 the NEMA. The SSVR aims to:

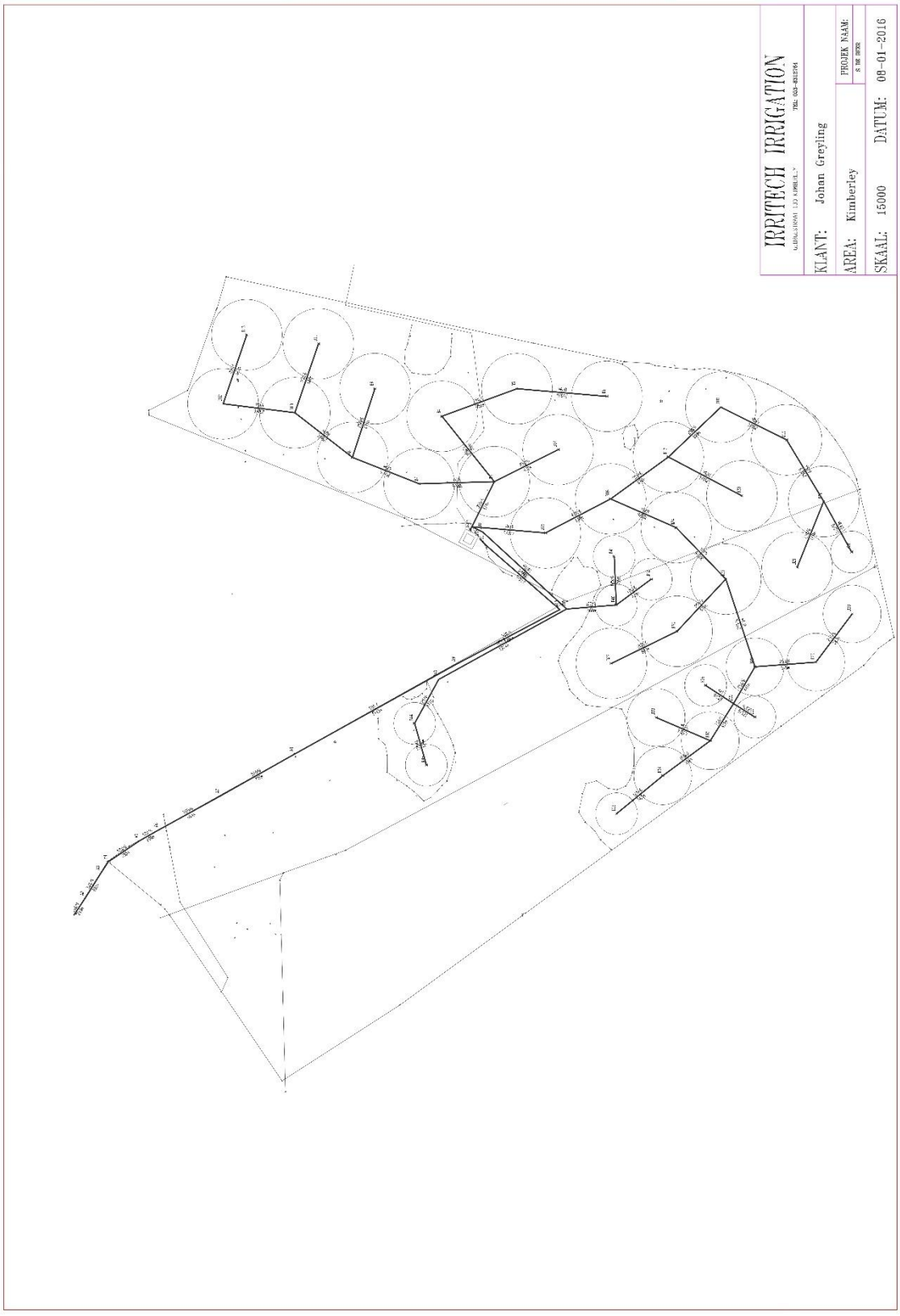
a) *confirm or disputes the current use of the land and the environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.;*
b) *contain motivation and evidence (e.g. photographs) of either the verified or different use of the land and environmental sensitivity; and*
c) *be submitted together with the relevant assessment report prepared in accordance with the requirements of the Environmental Impact Assessment Regulations1 (EIA Regulations).*

Environmental Site Sensitivity Verification Report

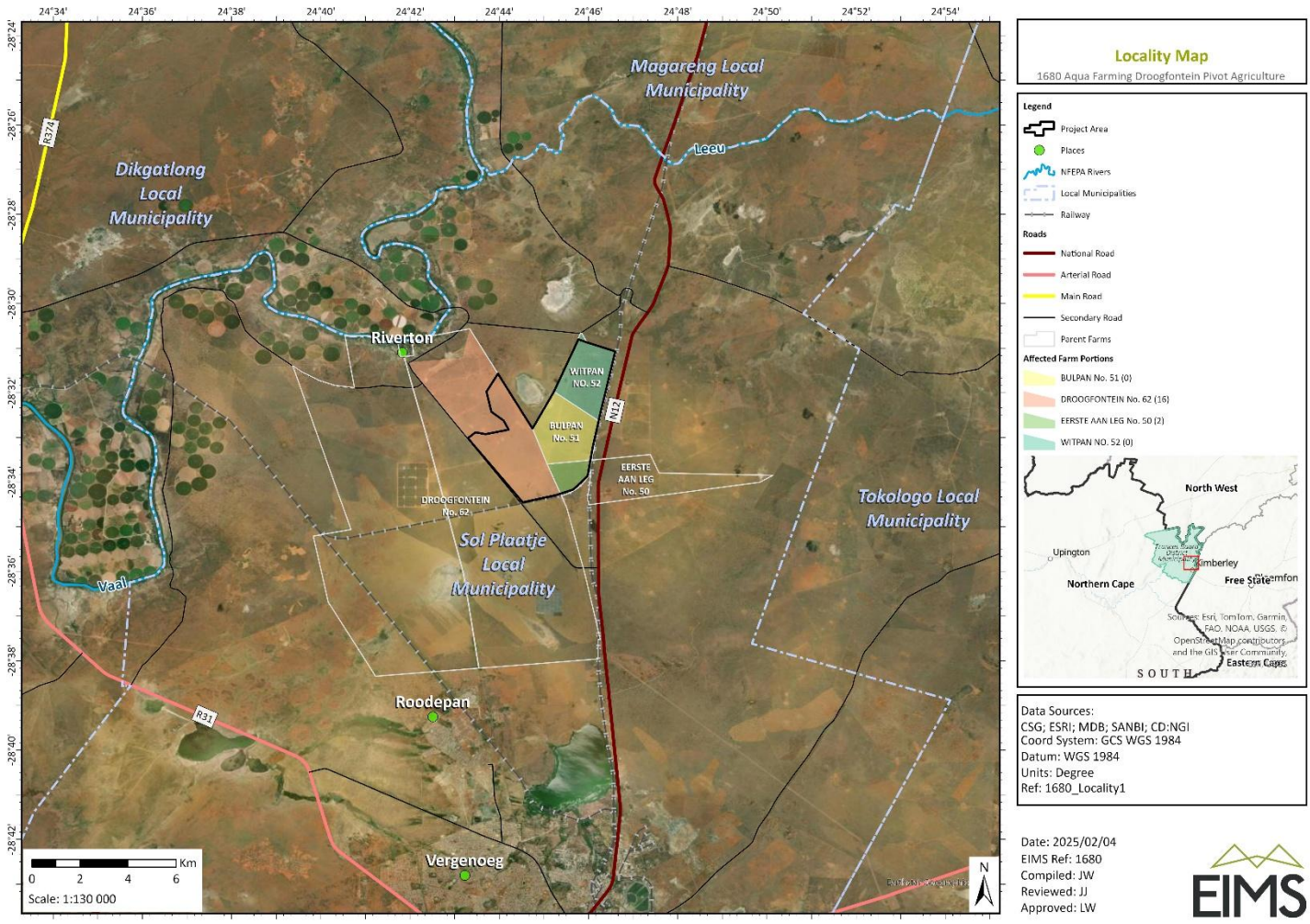
Job # :	1680	Client Representative:	Johan Greyling
Location:	Kimberley, Northern Cape	EAP Representative:	Jessica Jordaan
Client:	Aquafarming (Pty) Ltd	Inspection Date:	29th January 2025

1. Background			
Background of the project:	Aquafarming (Pty) Ltd, the applicant, wishes to apply for an environmental authorization (EA) for the removal of more than 20 hectares of indigenous vegetation to facilitate the development of several pivots, which will total to a 1 050-hectare pivot irrigation project. This development will be implemented in phases over a seven-year period. The proposed project is located in the Northern Cape Province, approximately 30 km north of Kimberley and adjacent to the Vaal River. The total area under consideration during the scoping and environmental impact assessment (EIA) phases is 1 800 hectares.		
Project Aspects:	Details (provide specifications)	Location (DD MM SS)	
		Latitude	Longitude
1. Assessment Area	1 800 ha assessment area for the removal of 1 050 ha of indigenous vegetation for development of pivot irrigation agriculture.	28°32'57.91"S	24°45'25.46"E
2. Powerline	Existing powerline, to be used for irrigation pending approval.	28°34'22.96"S	24°44'55.72"E
		28°32'51.59"S	24°44'1.85"E
3. Main road entrance	Entrance to farm from a main road (Langleg/Riverton Road)	28°33'29.04"S	24°43'41.09"E

2. Site Layout Plan



3. Site Locality



4. DEA Screening Tool Assessment

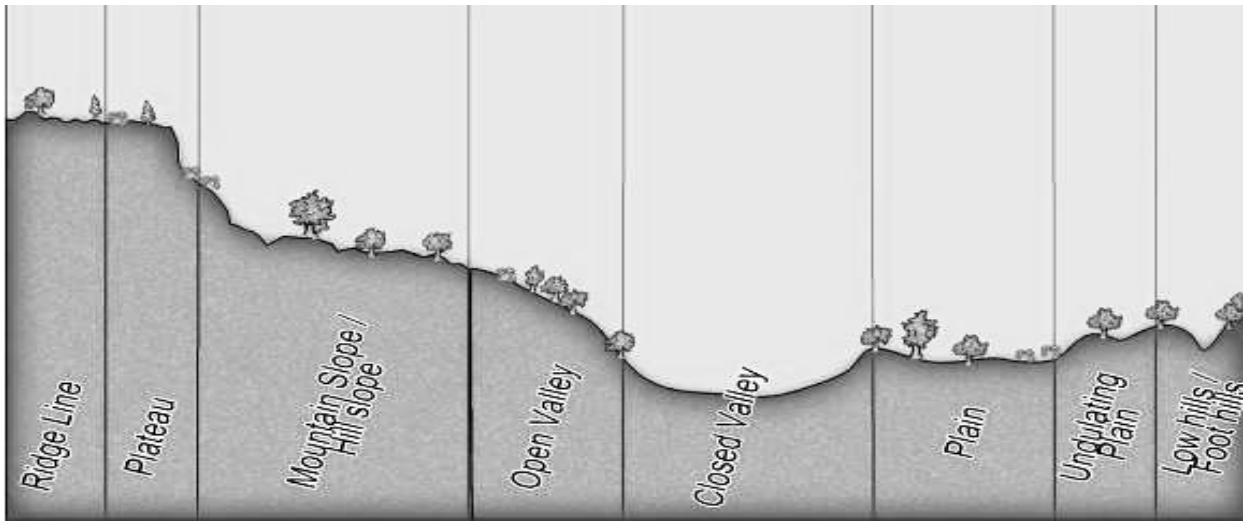
Aspect	Very High	High	Medium	Low
Agriculture Theme	☐	☒	☐	☐
Animal species Theme	☐	☒	☐	☐
Aquatic Biodiversity Theme	☒	☐	☐	☐
Archaeological and Cultural Heritage	☐	☐	☐	☒
Civil Aviation Theme	☐	☒	☐	☐
Defence Theme	☐	☐	☐	☒
Palaeontology Theme	☐	☒	☐	☐

Plant Species Theme	☐	☐	☒	☐
Terrestrial Biodiversity Theme	☒	☐	☐	☐

5. Site Assessment

5.1 Gradient (indicate the general gradient characteristics of site)

Aspect



Aquafarming Pivot Agriculture	☐	☐	☐	☐	☒	☒	☐	☐

5.2 Is the site located on or in the immediate vicinity of any of the following:

Aspect	Yes	No	Comment
Erosion Channels or areas of severe erosion/ destabilized soils	☐	☒	No erosion channels or destabilised soils were noted through the desktop analysis and site visit.
Wetlands (within 32m)	☒	☐	A FEPA Sub catchment was identified with the DFFE screening tool, which was located within one of the proposed pivots on the northeastern section of the proposed project area. A site inspection was undertaken and there did not seem to be an indication of a wetland, however, this will be confirmed with a specialist study.
Unstable slopes or geological features (rocky outcrops)	☐	☒	Minimal rocky outcrops were observed on-site, except for limestone outcrops which are outside the areas of the proposed pivots. No unstable slopes

			were noted on site and via desktop analysis.
Bare areas	☐	☒	The site exhibited minimal bare areas and was predominantly vegetated with grasses and sparsely distributed trees.
Other Sensitive or risk areas?	☒	☐	A potentially significant heritage feature, a gravesite, was identified on the site. The required buffer zone surrounding this feature will intersect with a proposed pivot location. The trees on-site are potentially camel thorn trees (*Vachellia erioloba*), the removal of which will require a permit. Confirmation from a specialist is required. Limestone outcrops were observed on-site and identified in a soil specialist's report. It was recommended that these areas be excluded from the proposed pivot development.
Are any existing servitudes and structures directly or indirectly affected by the proposed sites and routes (e.g. Eskom, public road servitudes and restrictions- 60 m from National Road, farmer's water/irrigation supplies, etc.)?	☒	☐	The eastern boundary of the project area is adjacent to a railway line. The nearest irrigation pivot's perimeter lies approximately 30 m from this railway. In the southeastern boundary of the project area, the closest pivot's perimeter is situated roughly 40 m from a public road.

5.3 Vegetation

Which of the listed descriptions best describes the general groundcover on and around the site?

Natural veld - good condition ☒	Natural veld with scattered aliens ☐	Natural veld with heavy alien infestation ☐	Veld dominated by alien species ☐	Gardens ☐
Sport field ☐	Cultivated land ☐	Paved surface ☐	Building or other structure ☐	Bare soil ☐

Comments on vegetation composition:	The general surface vegetation consisted of veld grass and scattered trees. The grass species are predominantly *Themeda triandra, Aristida congesta* and *Rytidosperma.* Other plant species observed on-site are *Athanasia Tirfurcata, Genus Dicoma.* The predominant tree species that are found scattered across the project area is *Vachellia erioloba,* previously known as *Acacia erioloba* (Camel thorn).
Comments on weed species/type	Minimal weed species were observed within the project area. Mexican poppy (*Argemone ochroleuca*) was noted as abundant in a small, dry dam area.

5.4 Land cover/ use description: Describe the land uses on the site	
Agriculture crops	Aquafarming proposes to establish pivot irrigation agriculture, incorporating a rotational cropping system of potatoes, onions, Rhodes grass (*Chloris gayana*), and Smutsfinger grass (*Digitaria eriantha*) which will be grazed by cattle. The development of the pivots will be phased, with grouped installations implemented sequentially. Areas external to and interspersed between the proposed pivot irrigation circles will be maintained in their natural state, with no removal of existing indigenous vegetation.

5.5 Site Photos

Description	Image	
General Landscape and vegetation		

Description	Image	
		

Description	Image
	  

Description	Image
	
	

Description	Image
	
	

Description	Image
	
The dam towards the north of the project area, with the general vegetation.	

Description	Image	
		

Description	Image	
Various plant species found on-site.		

Description	Image	
		

Description	Image	
		

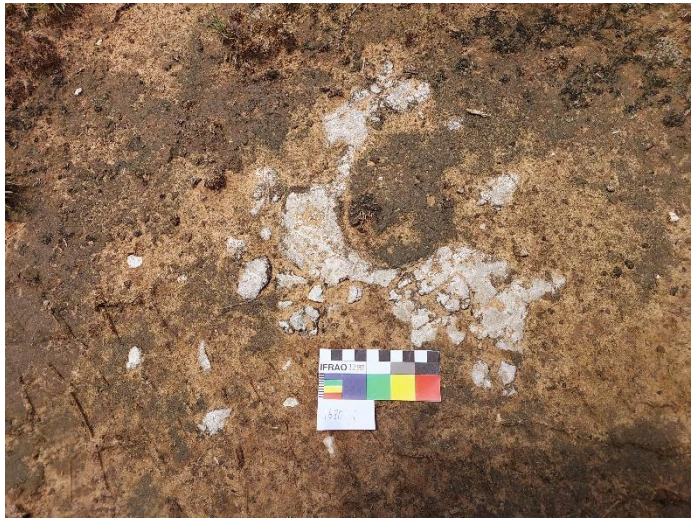
Description	Image	
		

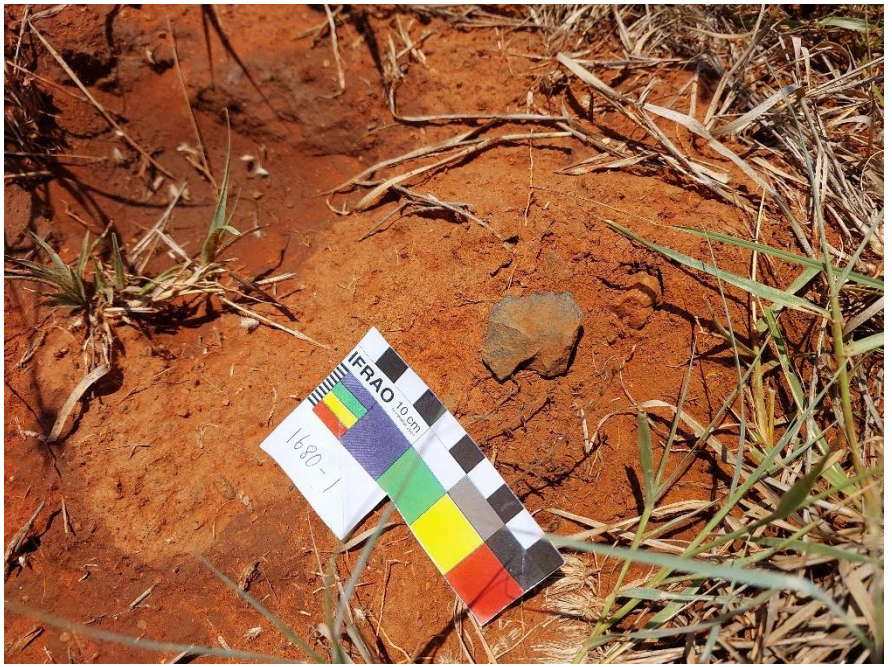
Description	Image	
		

Description	Image	
		
		

Description	Image	
		
		

Description	Image	
		
Fauna observed on-site		

Description	Image	
Limestone outcrop (left) and a powerline on-site (right) to be used for irrigation systems.		

Description	Image	
Agriculture and heritage (graves and stone tools)		

6. Verification findings and motivation:

Assessment for specialist studies and motivation:				
Screening Tool Specialist Study Required:	Level of Sensitivity:	Suggested Sensitivity:	Required level of Assessment	Motivation
Agriculture Impact Assessment	High	High	None	The sensitivity remains high, however due to the nature of the activity being agricultural, it is making use of the agricultural potential of the land and, therefore, it is the opinion of the EAP that a Compliance Statement from an agricultural specialist is not required in this instance. However, the client has undertaken a soil assessment, and this will be considered in the Scoping and EIA reports. In addition, crop rotation and conservational agriculture methods will be applied to keep the current level of agricultural potential or maybe even increase it.
Archaeological and Cultural Heritage Impact Assessment	Low	Low	Compliance Statement	During the preliminary site visit, minimal heritage features and archaeological artefacts were observed and the EAP confirms the low sensitivity. Following the DFFE Screening tool, a compliance statement is to be undertaken by the relevant specialist. Where a specialist assessment is required and no specific environmental theme protocol has been prescribed, the required level of assessment must be based on the findings of the site sensitivity verification and must comply with Appendix 6 of the EIA Regulations.
Palaeontology Impact Assessment	High	Low	Compliance Statement	The proposed project's impact will be limited to the surface, with a maximum depth of approximately 0.5 m from plowing. Therefore, the palaeontology will not be severely impacted, and a low sensitivity level is suggested. A compliance statement is to be undertaken by a specialist to confirm this. Where a specialist assessment is required and no specific environmental theme protocol has been prescribed, the required level of assessment must be based on the findings of the site sensitivity verification and must comply with Appendix 6 of the EIA Regulations.

Assessment for specialist studies and motivation:				
Screening Tool Specialist Study Required:	Level of Sensitivity:	Suggested Sensitivity:	Required level of Assessment	Motivation
Terrestrial Biodiversity Impact Assessment	Very High	Very High	Full Study	The proposed project area falls within a Critical Biodiversity Area (CBA) 1 and CBA2 area. The project's activities will have a severe impact on the terrestrial biodiversity, however, crop rotation and conservational agriculture methods will be applied to minimise the impact. A full assessment will be undertaken by a specialist.
Aquatic Biodiversity Impact Assessment	Very High	Low	Full Study	A portion of the project area falls within a Freshwater Ecosystem Priority Area (FEPA) sub-catchment as per the DFFE Screening report. Additionally, a section of the project area lies within the Eastern Kalahari Bushveld Bioregion. A preliminary desktop screening identified a wetland adjacent to the project area. However, a subsequent site visit confirmed the wetland's artificial origin, resulting from the deposition of municipal wastewater into the sub-catchment. This discharge has since ceased, rendering the discharge dam defunct. The area is now characterized by dense vegetation, consisting primarily of weed species. Due to the limited extent of overlap between the project area and the FEPA sub-catchment and Eastern Kalahari Bushveld Bioregion, a low sensitivity level is recommended. However, a full assessment will still be conducted by a specialist to confirm this finding.
Plant Species Assessment	Medium	High	Full Study	*Vachellia erioloba*, a Species of Conservation Concern (SCC) species in the area, were observed on-site, however, the screening tool has indicated the sensitivity level to be medium, a high sensitivity level is suggested due to the nature of the species of the plants and the nature of the project. A full assessment will be conducted, and confirmation of the species is to be provided by a specialist. a. Where Species of Conservation Concern (SCC) are found on site or have been confirmed to be likely present, a Terrestrial Plant Species Specialist Assessment must be submitted in

Assessment for specialist studies and motivation:				
Screening Tool Specialist Study Required:	Level of Sensitivity:	Suggested Sensitivity:	Required level of Assessment	Motivation
				accordance with the requirements specified for “very high” and “high” sensitivity in this protocol. b. Similarly, where no SCC are found on site during the site inspection or the presence is confirmed to be unlikely, a Terrestrial Plant Species Compliance Statement must be submitted. "
Animal Species Assessment	High	Medium	Full Study	The screening report identified two highly sensitive species, *Neotis ludwigii* (Ludwig's Bustard) and *Gyps africanus* (African White-backed Vulture), as potentially occurring within the project area. The nature of the project may result in a potentially significant impact on these species. A specialist assessment will be conducted to further evaluate and address potential impacts. a. Where SCC are found on site or have been confirmed to be likely present, a Terrestrial Animal Species Specialist Assessment must be submitted in accordance with the requirements specified for “very high” and “high” sensitivity in this protocol. b. Similarly, where no SCC are found on site during the site inspection or the presence is confirmed to be unlikely, a Terrestrial Animal Species Compliance Statement must be submitted. "
Landscape / Visual Impact Assessment	The proposed pivot agriculture project is situated within a region characterised by extensive existing agricultural land use. Consequently, the introduction of pivot irrigation is anticipated to result in minimal alteration to the prevailing visual characteristics of the landscape. Furthermore, the project site is located within a remote area exhibiting limited public accessibility and few sensitive visual receptors, such as residential areas or designated scenic viewpoints. This would suggest a low potential for significant visual impacts. Based on these site-specific characteristics, namely the pre-existing agricultural landscape and the site's remoteness and limited visual receptors, it is the Environmental Assessment Practitioner's (EAP) professional opinion that a dedicated Landscape/Visual Impact Assessment is not warranted for this project.			
Hydrology Assessment	The proposed project is anticipated to result in minimal alteration to existing surface runoff patterns. This is primarily attributed to the project's location within established agricultural land, which inherently exhibits high infiltration capacity. Consequently, the development is not expected to significantly increase or alter the volume or rate of surface water discharge. Furthermore, the proposed pivot irrigation infrastructure is situated approximately 3 kilometres from the nearest river course (Vaal River), placing the pivot development outside any identified floodlines and significantly reduces contribution to flood risks.			

Assessment for specialist studies and motivation:				
Screening Tool Specialist Study Required:	Level of Sensitivity:	Suggested Sensitivity:	Required level of Assessment	Motivation
	Therefore, it is the EAP's professional opinion that a comprehensive hydrology assessment is not needed. The anticipated impact on surface runoff and flood risk is considered negligible due to the project's design and location.			
Socio-Economic Assessment	Based on the project's location within a pre-existing, commercially focused agricultural area and the nature of the project, i.e. development of pivots, it is the EAP's professional opinion that a dedicated socio-economic assessment is not warranted for this project. This determination is based on the anticipated minimal impact on the prevailing socio-economic environment.			

Guidance notes:

- *An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified by the screening tool as being of "very high" or "high" sensitivity for terrestrial animal species must submit a Terrestrial Animal Species Specialist Assessment Report.*
- *An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being of "medium sensitivity" for terrestrial animal species must submit either a Terrestrial Animal Species Specialist Assessment Report or a Terrestrial Animal Species Compliance Statement, depending on the outcome of a site inspection undertaken in accordance with paragraph 4.*
- *An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being of "low" sensitivity for terrestrial animal species must submit a Terrestrial Animal Species Compliance Statement.*
- *Where the information gathered from the site sensitivity verification differs from the screening tool designation of "very high" or "high", for terrestrial animal species sensitivity and it is found to be of a "low" sensitivity, then a Terrestrial Animal Species Compliance Statement must be submitted.*
- *Where the information gathered from the site sensitivity verification differs from the screening tool designation of "low" terrestrial animal species sensitivity and it is found to be of a "very high" or "high" terrestrial animal species sensitivity, a Terrestrial Animal Species Specialist Assessment must be conducted.*
- *If any part of the development falls within an area of confirmed "very high" or "high" sensitivity, the assessment and reporting requirements prescribed for the "very high" or "high" sensitivity, apply to the entire development footprint. Development footprint in the context of this protocol means, the area on which the proposed development will take place and includes the area that will be disturbed or impacted*.