METHODOLOGY FOR IDENTIFYING AND RATING SIGNIFICANCE OF POTENTIAL IMPACTS

The EAP conducted a desktop study of the proposed site by means of GoogleEarth and then visited the proposed site on 03 April 2023 in order to witness first-hand, the various environmental features that exist on and around the proposed site and to identify the potential environmental impacts of the proposed development.

The following impact rating approach used by EnviroAfrica CC is a basic exponential rating system to assess actual and potential negative environmental impacts.

Positive environmental impacts are also listed. All positive impacts need to be enhanced or increased where possible but positive impacts are not rated or given a score since the rating is based on risks.

Environmental activities or aspects are identified, based on:

- the phases of the project,
- the nature (or description) of the actual and potential impacts of the activities.

For every project activity or aspect, various environmental impacts are listed. Every negative impact is allocated a value as per each of the following criteria:

- Likelihood (Probability)
- Extent (Severity)
- Duration (Frequency)
- Consequence (Receiving Environment and Toxicity)

Once a value is allocated for each of the criterion, the scores are averaged to determine the final impact rating see Table 1 below.

Enviro Africa then further assesses environmental significance, based on the nature of the impact, as per the score and colour key which forms part of Table 1 below. This results in impacts having either a low (indicated in green), medium (indicated in yellow) or high (indicated in orange and red) significance.

Note: i. One environmental aspect or project activity e.g. site clearance may have multiple impacts in different areas.

ii. The various impacts per aspect/project activity are documented in the Quantification of Aspects and Impact/s Significance Rating form (Table 2 Annexure B).

iii. As a baseline, impact rating values/scores are allocated taking the **worst case** scenario into account i.e. with no mitigation. The baseline rating is compared with those after mitigation has been taken into account *i.e.* the post-mitigation rating. Post mitigation rating is used for the actual impact assessment.

Table 1: Environmental Significance Rating Methodology (rating criteria and significance key)

SIGNIFICANCE CRITIERIA	Very High	High	Medium	Low	Negligible (very low)		
Value	**16**	**8**	**4**	**2**	**1**		
Probability (likelihood) **(P)**		Definite. Impact will definitely occur (impact will occur regardless of any prevention measures)	Highly probable. Very likely for impact to occur.	Probable. Impact may likely occur.	Improbable. Low likelihood/unlikely for impact to occur.		
Extent (E)	Impact potentially reaches beyond national boundaries	Impact has definite provincial/potential national consequences	Impact confined to regional area/ town	Impact confined to local region and impact on neighbouring properties	Impact confined to project property / site		
Duration (D)	Permanent The impact is expected to have a permanent impact, with very little to no rehabilitation possible	Long-Term The impact is expected to last for a long time after construction with rehabilitation expected to be 15-50 years. Impact is reversible but only with long-term mitigation	Medium-term The impact is expected to last for some time after construction with rehabilitation expected to be 5 - 15 years. Impact is reversible but only with on-going mitigation	Short-term The impact is expected to last for a relatively short time with rehabilitation expected to be 2-5 years. The impact is reversible through natural process and/or some mitigation.	Very short/ temporary The impact is expected to be temporary and last for a very short time with rehabilitation expected to be less than 2 years. The impact is easily reversible through natural process and/or some mitigation.		
Magnitude (Intensity/ Severity) **(M)**	It is expected that the activity will have a very severe to permanent impact on the surrounding environment. Functioning may be irreversibly impaired. Rehabilitation often impossible or unfeasible	It is expected that the activity will have a severe impact on the surrounding environment. Functioning may be severely impaired and may be temporarily cease. Rehabilitation will be needed to restore system integrity	It is expected that the activity will have an impact on the surrounding environment, but it will maintain its function, even if moderately modified (overall integrity not compromised). Rehabilitation easily achieved	It is expected that the activity will have a perceptible impact on the surrounding environment, but it will maintain its function, even if slightly modified (overall integrity not compromised). Rehabilitation easily achieved	It is expected that the impact will have little or no effect on the integrity of the surrounding environment		
Receiving environment (Consequence): **(RE)**	Very sensitive, pristine area – protected site or species permanently or seasonally present	Unused area containing only indigenous fauna / flora species	Unused area containing indigenous and alien fauna / flora species	Semi-disturbed area already rehabilitated / recovered from prior impact, or with moderate alien vegetation	Disturbed area/ transformed/ heavy alien vegetation		

IMPACT SIGNIFICANCE RATING KEY:

Negative Impacts

Very Significant	Very High	-11 to -16
Significant	High	-7 to <-11
Increasing Significance	Medium	-4 to <-7
Insignificant	Low	-2 to <-4
	Very Low	-1 to <-2

Positive Impacts

SIGNIFICANCE	RATING	Final rating score / value range
Significant	High	10 to 16
Increasing Significance	Medium	4 to <10
Insignificant	Low	1 to <4

	ASPECT	IMPACT	L/P	E/S	D/F	C: RE	**Pre-Mitigation Score** (Baseline)	L/P	E/S	D/F	C: RE	**Post-Mitigation Score** (Impact assessment)	Short Description of Mitigation Measures
1													
2													
3													
4													
5													
6													
7													
8													