PROJECT IMPACT ASSESSMENT, SIGNIFICANCE AND MITIGATION MEASURES SUMMARY

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

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:

- Probability (Likelihood)
- Extent
- Duration (Frequency)
- Consequence (Receiving Environment)
- Magnitude (Intensity/severity)

Every positive impact is allocated a +value as per each of the following criteria:

- Probability (Likelihood)
- Extent
- Duration (Frequency)
- Magnitude (Intensity/severity)

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

EnviroAfrica 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) negative significance, and a low (light blue), medium (blue) or a high (dark blue) positive significance

Note: i. 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.

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. Impact may occur. Distinct Possibility	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 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

ENVIRONMENTAL RATING SIGNIFICANCE KEY:

Negative Impacts

SIGNIFICANCE	RATING	Final rating score / value range
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

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

**INSERT RATING SCORING MATRIX*

Nature of Impact			Impact Assessment Ranking and Proposed Mitigation		
No.	**Aspect**	**Impact**	**Environmental Significance (without Mitigation)**	**Proposed Mitigation (i.e. Proposed mitigation to reverse/ avoid, manage or mitigate identified impacts associated with construction, operation, and decommissioning/ closure phases)**	**Environmental Significance (After Mitigation)**
CONSTRUCTION PHASE					
1	Freshwater Resources	No impact expected	Very Low (Negligible)	- No mitigation required	Very Low (Negligible)
2	Botanical	Loss of vulnerable or endangered vegetation and associated habitat.	Very Low (Negative)	- All invasive alien plant species encountered on the site should be removed responsibly and follow-up work must be done during the construction period. - Clearance of vegetation to be limited to the development footprint and required work area as per the EMP and in consultation with the ECO prior to vegetation removal. - Areas to be cleared to be appropriately demarcated.	Very Low (Negative)
3		Potential impact on protected areas, CBA's, ESA's	Low (Negative)		Very Low (Negative)
4	Impact on Cultural, Archaeological Palaeontological, and Heritage	Loss and/or damage to potential fossils and pre-colonial archaeological and historical sites within the construction footprint	Very Low (Negative)	Should any fossil remains (*e.g.* vertebrate bones and teeth, shells) be encountered during development, a Chance Find Protocol as per the EMP must be followed.	Very Low - Negligible (Negative)
5	Socio-economic	Creation of short- and long-term employment opportunities.	Low (Positive)	The construction of the telecommunications mast will have positive impacts on the socio-economic dynamics relative to direct and indirect, short- and long-term employment opportunities and skills development.	Low (Positive)
6	Dust	Dust may be generated during the construction of the proposed development which may impact drivers on the N10.	Very Low (Negative)	The following mitigation measures must be implemented: - Dust mitigation as per the EMP	Very Low (Negative)
7	Visual	Site may be not aesthetic amid natural background.	Low (Negative)	This impact cannot be avoided.	Low (Negative)
8	Traffic	Increase in trucks slowing down and turning to enter/ Construction area.	Low (Negative)	Given the location of the site, it is possible that construction traffic will impact road users however the following mitigation measures will be implemented: - The site must be made easily accessible to all construction traffic travelling along the R62;	Very Low (Negative)

Nature of Impact			Impact Assessment Ranking and Proposed Mitigation		
No.	**Aspect**	**Impact**	**Environmental Significance (without Mitigation)**	**Proposed Mitigation (i.e. Proposed mitigation to reverse/ avoid, manage or mitigate identified impacts associated with construction, operation, and decommissioning/ closure phases)**	**Environmental Significance (After Mitigation)**
				- If required, point's men must be in attendance to direct traffic when heavy vehicles are accessing or leaving the site to ensure that there are no accidents.	
9	Noise	Noise will be generated during the construction phase.	Low (Negative)	Any noise generated by construction activities will be a temporary impact however, the following mitigation measures will be implemented: - A complaint register to be maintained on-site. Any complaints received must be responded to and rectified accordingly. The ECO must be notified of any complaints; - All construction vehicles must be fitted with standard silencers. All silencers must be maintained. All machinery used on site must have suppressors. - Working hours must be limited to and strictly adhered to standard daylight working hours (08h00-17h00).	Low (Negative)
OPERATION PHASE					
10	Freshwater Resources	No impacts expected	Very Low (Negligible)	- No mitigation required	Negligible
11	Botanical	Potential loss of vegetation due to operational activities	Very Low (Negligible)	- Vehicles to only use, and remain on, the access roads	Very Low (Negligible)
12	Socioeconomic	Creation of short- and long-term employment opportunities.	Low (Positive)		Low (Positive)
13		Improved telecommunication services and capacity in the area	Medium (Positive)		Medium (Positive)
14	Visual	Visual impact of a 35m telecommunications mast	Medium – High (Negative)	- Restrict the height of the telecommunication mast to 35m in height. - Use a lattice mast design. - Paint the palisade fence around the telecommunication mast in an appropriate color to blend in with the surrounding environment.	Medium - Low (Negative)