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 negative 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)**	**Score**
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	Long-Term	Medium-term	Short-term	Very short/ temporary	
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	
FINAL RATING (average score)						

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**

			WITHOUT MITIGATION						WITH MITIGATION						
No.	**ASPECT**	**IMPACT**	**Probability**	**Extent**	**Duration**	**Magnitude**	**Receiving Environment**	**Without Mitigation Score** (Baseline)	**Probability**	**Extent**	**Duration**	**Magnitude**	**Receiving Environment**	**With Mitigation Score** (Impact assessment)	**Short Description of some of the pertinent mitigation/ enhancement measures**
1	**Botanical**	Loss of vegetation	-2	-1	-8	-1	-1	-2.6	-1	-1	-1	-1	-1	-1	No mitigation required
	Botanical No-Go Option							Neutral						Neutral	
2	**Freshwater**	No impacts expected													
3	**Heritage**	Loss of archaeological and palaeontological resources	-1	-1	-16	-1	-1	-4	-1	-1	-16	-1	-1	-4	No mitigation measures recommended, however, if any archaeological remains (including but not limited to fossil bones and fossil shells, coins, indigenous and/or colonial ceramics, any articles of value or antiquity, stone artefacts and bone remains, structures and other built features, rock art and rock engravings) are discovered during construction they must immediately be reported to South African Heritage Resources Agency (SAHRA) and must not be disturbed further until the necessary approval has been obtained from HWC. Should any human remains/burial or archaeological material be disturbed, exposed or uncovered during construction, these should immediately be reported to the SAHRA. The ECO and Engineer are also to be informed.
4	**Socio-economic**	Creation of employment opportunities during							8	2	1	1		4	No mitigation required, as this is a positive impact. However, as far as possible, previously disadvantaged

		the construction phase													individuals from the surrounding community to be employed.
5	**Socio-economic**	Creation of employment opportunities during the operational phase							8	2	2	1		4.2	No mitigation required, as this is a positive impact. However, as far as possible, previously disadvantaged individuals from the surrounding community to be employed.
6	**Traffic**	No impacts expected													
7	**Noise**	Noise impact from machinery and plant on the neighbouring residential properties during construction	-4	-2	-2	-4	-2	-3	-4	-2	-2	-1	-2	-2	The following measures should be implemented amongst others: • The Contractor shall endeavour to keep noise generating activities to a minimum. • Construction only to take place during normal working hours • Compliance with the appropriate legislation with respect to noise shall be mandatory.
8	**Visual**	Unsightly views due to construction site.	-8	-2	-2	-4	-2	-4	-8	-2	-2	-2	-2	-3	Visual impact mitigation measures will be dealt with in the EMP The EMP must be enforced and monitored by the ECO. - The Contractor shall restrict all his activities, materials, equipment and personnel to within the area specified. - Construction material must be stored in areas designated by the site agent and in a neat and orderly manner. - The Contractor must ensure that all structures, equipment, materials and facilities used or created on site for or during construction activities are removed once the project has been completed. The construction site must be cleared and cleaned to the satisfaction of the ECO.

															Immediately after the demolition of the camp site, the contractor shall restore the site to its original state, paying particular attention to its appearance relative to the general landscape.
9	**Visual**	Potential visual impact of a telecommunication mast in a residential area.	-16	-2	-8	-4	-4	-7	-16	-2	-8	-4	-2	-6	• Restrict the height of the mast to 55m; • Allow multiple service providers to use mast, preventing the need for additional masts to be erected in the vicinity