

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 CRITERIA	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

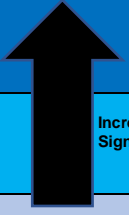


Table 1: Environmental Significance Rating Methodology (rating criteria and significance key)

No.	ASPECT	IMPACT	WITHOUT MITIGATION					Without Mitigation Score (Baseline)	WITH MITIGATION					With Mitigation Score (Impact assessment)	Short Description of some of the pertinent mitigation/enhancement measures
			Probability	Extent	Duration	Magnitude	Receiving Environment		Probability	Extent	Duration	Magnitude	Receiving Environment		
1	Botanical	Loss of vegetation	-16	-1	-16	-4	-2	-8	-16	-1	-16	-2	-2	-7	Conserve the remainder of the site in perpetuity
	Botanical No-Go Option							Neutral						Neutral	
2	Botanical	Loss of Ecological Processes	-16	-1	-16	-4	-4	-8	-16	-1	-16	-2	-2	-7	Conserve the remainder of the site in perpetuity
	Botanical No-Go Option							Neutral						Neutral	
3	Freshwater	No significant impacts expected													
4	Heritage	Loss of archaeological and palaeontological resources	-1	-1	-16	-1	-1	-4	-1	-1	-16	-1	-1	-4	No mitigation measures recommended, however, should 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 HWC and must not be disturbed further until the necessary approval has been obtained from HWC.
5	Socio-economic	Creation of employment opportunities during the construction phase							16	2	2	2		5.5	No mitigation required, as this is a positive impact. However, as far as possible, previously disadvantaged individuals from the surrounding community to be employed.

	Socio-economic	Creation of employment opportunities during the operational phase								16	2	2	1		5	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	Visual	No potential significant visual impact on the area is expected due to the surrounding land-uses (vineyards)														
8	Dust	Potential impact of dust from construction activities	-4	-2	-2	-2	-2	-2	-4	-2	-2	-1	-2	-2	-2	The proposed development should be phased and site clearing confined to the specific areas under construction as far as possible. Dust suppression measures must be implemented. Construction in accordance with the EMP