In terms of Regulation 19(3) of GN R.326 of the NEMA Environmental Impact Assessment Regulations, 2014, as amended (07 April 2017), the impact assessment for the proposed Groblershoop, Destination River Resort Development is as follows:

Construction phase:

Potential impacts on geographical and physical aspects:	**Potential impact on freshwater ecosystems – Orange River**
Nature of impact:	Siltation of the Orange River
Extent and duration of impact:	Regional, during construction
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Reversible
Degree to which the impact may cause irreplaceable loss of resources:	Negligible
Cumulative impact prior to mitigation:	None expected
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	• The main object of mitigation measures should be to keep silt out of the Orange River. In this arid region there is not much chance of that, except if an occasional thunder storm breaks out. Mitigation measures would be to complete as much of the resort prior to the rainy season, to keep the footprint as small as possible, to grass destabilised areas as soon as possible and to pave the indicated areas as soon as possible. • Building rubble should be kept out of the river. • The tree lining on the river banks should be preserved as far as possible. New trees should be planted where necessary. • The camping site was already grassed over, with the irrigation in place. During the operational phase, over irrigation should be prevented, with no return flow into the river.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential impact on biological aspects:	
Nature of impact:	**Loss of vegetation** - Loss of indigenous vegetation on the footprint of the development. - Loss of faunal habitat.
Extent and duration of impact:	Local, long-term
Probability of occurrence:	High probability
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Low Negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium negative

Degree to which the impact can be mitigated:	Low
Proposed mitigation:	- Vegetation clearing for the current infrastructure has already been done. - No alien invasive plant species may be used for landscaping and gardening and indigenous - species should be used wherever possible. - The denuded and disturbed areas should be re-vegetated or rehabilitated. - Development should be contained within the proposed footprint of the development and unnecessary disturbance adjacent to the site should be avoided. - Minimise further clearance of natural vegetation and disturbance along the Orange River and its tributaries. A permit has to be obtained from NCDENC and/or DAFF for the removal or transplanting of protected plant species. - The indigenous vegetation, and especially the indigenous trees, should be retained as far as possible and buildings should be placed between trees. Protected trees should be conserved and not destroyed. The denuded and disturbed areas should be re-vegetated with indigenous species as soon as possible. - No firewood collection may be allowed. - No protected trees may be damaged or cut without a permit. - No alien invasive plant species may be used for landscaping and gardening. - Existing and dedicated roads should be marked and utilised by vehicles and random driving in the veld or on dunes should be prohibited. - Implement a monitoring program for the early detection of alien invasive plant species. The control program to combat declared alien invasive plant species should be continued during the operational phase. - Any areas that will be denuded as a result of activities on site, should be re-vegetated (rehabilitated) as soon as possible to prevent soil erosion and establishment of alien invasive plant species.
Cumulative impact post mitigation:	Very-Low negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium Negative

Potential impact on biological aspects:	
Nature of impact:	**Alien Vegetation** As a result of the loss of indigenous vegetation and resulting disturbance, declared alien species might invade the area. Removal of alien invasive plant species should be encouraged.
Extent and duration of impact:	Local, long-term
Probability of occurrence:	High probability
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Low Negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium negative
Degree to which the impact can be mitigated:	Low

Proposed mitigation:	- Development should be restricted to the proposed development site and the disturbance to the surrounding natural or indigenous vegetation be kept to a minimum. - Establish a monitoring program for the early detection and control of alien invasive plant species. - No alien invasive species should be used in landscaping or gardens on the site.
Cumulative impact post mitigation:	Very-Low Positive
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low Positive

Potential impacts on socio-economic aspects:	
Nature of impact:	**Temporary jobs will be created in the construction industry during the construction phase.**
Extent and duration of impact:	Local. During the construction phase of the activity
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	NA. This is a positive impact
Degree to which the impact may cause irreplaceable loss of resources:	NA
Cumulative impact prior to mitigation:	Low - positive
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - positive
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	No mitigation measures are required. Temporary jobs will be created during the construction phase
Cumulative impact post mitigation:	Low - positive
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - positive

Potential impacts on cultural-historical aspects:	
Nature of impact:	**The loss of cultural or historic aspects during construction**
Extent and duration of impact:	Local, during construction phase
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Low – Negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low – Negative
Degree to which the impact can be mitigated:	Limited
Proposed mitigation:	- For the isolated stone tools, lithic scatters of low significance, and 20th-century structures and features, no further action is required. - The knapping sites located on the series of dunes to the east of the development footprint are of medium to high significance. The dunes are approximately 2-5 km from the present development on the east shore. Currently no

	developments are planned for this area, therefore no mitigation is necessary at present. It should be noted that if any future developments are considered, mitigation of these sites should be undertaken. Mitigation should include comprehensive mapping and recording of the sites, and possible sample collection. Furthermore, these areas should be considered as archaeologically sensitive, and the owners and developers should be made aware of the impact that construction vehicles and recreational vehicles could have on these heritage resources. - In the resort development area on the eastern shore of the Gariep/Orange River, construction activities have already had a negative impact on archaeological resources. Mitigation for the remaining LSA sites in the footprint area is recommended after which the sites may be destroyed. Mitigation usually involves the collection or excavation of a sample of the cultural and other remains that will adequately allow characterization and dating of a site. Following the Phase 1 HIA/AIA specialist recommendation and the comments from the governing heritage agency (SAHRA) on the Phase 1 report, an application for a Mitigation Permit for sample excavation and collection will be completed. After the Phase 2 HIA/AIA, the developer will be assisted in applying for a destruction permit from SAHRA. - The graves do not need to be relocated to make way for development. It is therefore only recommended that the area is fenced and clearly demarcated, especially during construction, and that no construction should take place within 50 m of the perimeter thereof. If any other graves or human remains are uncovered during construction activities, law enforcement and heritage authorities need to be notified. - Due to the low palaeontological significance of the area, no further palaeontological heritage studies, ground truthing and/or specialist mitigation are required pending the discovery of newly discovered fossils.
Cumulative impact post mitigation:	Low Negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low Negative

Potential noise impacts:	
Nature of impact:	**Noise impact from machinery and plant on the neighbouring properties during construction**
Extent and duration of impact:	Local, Duration of construction phase
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Negligible
Cumulative impact prior to mitigation:	Low – negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low – negative
Degree to which the impact can be mitigated:	Medium

Proposed mitigation:	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.
Cumulative impact post mitigation:	Very Low – negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low – negative

Potential visual impacts:	
Nature of impact:	**Unsightly views due to construction site.**
Extent and duration of impact:	Local, during duration of construction
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Possible
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	Low - negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - negative
Degree to which the impact can be mitigated:	Probable
Proposed mitigation:	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.
Cumulative impact post mitigation:	Very low - negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low - negative

Operational phase:

Potential impacts on geographical and physical aspects:	**Potential impact on freshwater ecosystems**
Nature of impact:	Leakage, spillage of effluent into the Orange River
Extent and duration of impact:	Regional, during operational phase
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Irreversible
Degree to which the impact may cause irreplaceable loss of resources:	High
Cumulative impact prior to mitigation:	None expected
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium Negative
Degree to which the impact can be mitigated:	High
Proposed mitigation:	- During the operational phase the conservancy tank should be emptied regularly. Should an accidental overflow occur, residues should be cleaned up professionally, with health threats reduced and chances for pollution of the river eliminated. - The management should be alert and vigilant if it comes to floods. Warnings from the DWS should be taken seriously and people should be timeously evacuated, if necessary. - The conservancy tank should be emptied before a flood happens. The electrical supply should be switched off. - These mitigation measures can be applied successfully with the appropriate level of best practice and keen management.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low Negative

Potential impacts on geographical and physical aspects:	**Potential impact on natural vegetation**
Nature of impact:	- Loss of indigenous vegetation on the footprint of the development. - Loss of faunal habitat.
Extent and duration of impact:	Local, during operational phase (long term)
Probability of occurrence:	Highly Probable
Degree to which the impact can be reversed:	Irreversible
Degree to which the impact may cause irreplaceable loss of resources:	High
Cumulative impact prior to mitigation:	None expected
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low Negative
Degree to which the impact can be mitigated:	High
Proposed mitigation:	- The indigenous vegetation, and especially the trees, should be retained as far as possible and buildings should be placed between trees. Protected trees should be conserved and not destroyed. The denuded and disturbed areas should be re-

	vegetated with indigenous species as soon as possible. - No collection of firewood may be allowed. - No protected trees may be damaged or cut. - No invasive alien plant species should be used for landscaping and gardening. - Environmental code of conduct for all staff and visitors should be developed. - Existing and dedicated roads should be marked and utilised by vehicles and random driving in the veld or on dunes should be prohibited. - Any areas that will be denuded as a result of activities on site, should be re-vegetated (rehabilitated) as soon as possible to prevent soil erosion and establishment of alien invasive plant species.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low Negative

Potential impacts on the socio-economic aspects:	
Nature of impact:	The project is expected to: - provide job opportunities during the construction and the operational phase.
Extent and duration of impact:	Local, Permanent
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	NA
Degree to which the impact may cause irreplaceable loss of resources:	NA, the impact is a positive impact
Cumulative impact prior to mitigation:	NA
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	NA
Degree to which the impact can be mitigated:	NA, the impact is a positive impact
Proposed mitigation:	No mitigation measures are required
Cumulative impact post mitigation:	Low - Positive
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - Positive

Potential impacts on the cultural-historical aspects:	
Nature of impact:	**No cultural or historic impacts are expected during the operational phase of this activity.**
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	

Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	

Potential noise impacts:	
Nature of impact:	**No significant noise impacts are expected during the operational phases**
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	

Potential visual impacts:	
Nature of impact:	**The activity is not expected to have a visual impact during the operational phase**
Extent and duration of impact:	
Probability of occurrence:	
Degree to which the impact can be reversed:	
Degree to which the impact may cause irreplaceable loss of resources:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	

Decommissioning:

The project as proposed does not require ‘decommissioning’ or ‘closure’, as such the potential impacts thereof is considered irrelevant.