

In terms of Regulation 22(2)(i) of GN R.543 of the NEMA Environmental Impact Assessment Regulations, 2014, the impact assessment for the proposed Hakskeen Pan Speed events is as follows:

Construction phase:

Potential impacts on geographical and physical aspects:	Potential impact on freshwater ecosystems
Nature of impact:	Impact of vehicles on the pan
Extent and duration of impact:	Local, during construction phase and operational phase (short-term)
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Medium negative
Cumulative impact prior to mitigation:	Moderate 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:	Medium
Proposed mitigation:	<ul style="list-style-type: none"> • Vehicles to use existing roads and tracks as far as possible • Where and when vehicles do have to traverse the pan off of the existing tracks: <ul style="list-style-type: none"> - Vehicles should avoid the softer patches of soil with visible salt cover. - If there are more than one vehicles, the trailing vehicles must avoid following in the lead vehicles tracks - The same tracks should not be used over again • Vehicle movements must be avoided when the pan is wet • Access to the pan by private vehicles must be limited, or even prohibited. It is recommended that spectators be transported to the designated viewing areas with busses. A designated parking area should be established
Cumulative impact post mitigation:	Low - negative
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 freshwater ecosystems
Nature of impact:	Removal of stones during the clearing of the Bloodhound SSC track
Extent and duration of impact:	Local, long-term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Low negative
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:	Low

Proposed mitigation:	<p>Mitigation measures are limited.</p> <p>There might be some loss of the survival stages of life forms not being able to reach the surface at the next flood because of the disturbance of the soil. This is especially of concern because of the removal of the bigger rocks, during which larger quantities of soil were turned over.</p> <p>In comparison to the rest of the pan, the track is small and the area from which larger rocks had to be removed even smaller. Hence it is not expected that this would have significant impact.</p> <p>The soils of the pan evidently possess remarkable self-restoration characteristics.</p> <p>When flooded the fine sediments in suspension re-settle on the surface when the water dries up. The settled sediments cover up, form a crust and harden to heal the “wounds” that have been created by removal of stones. This is anecdotal and needs to be verified with scientific observation.</p> <p>Nevertheless, from a limnological point of view, it is doubtful if any significant impact can be scientifically illustrated because of the removal of the stones. Future research will hopefully render some answers.</p>
Cumulative impact post mitigation:	Low - negative
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 freshwater ecosystems
Nature of impact:	Infilling and raising the area around the MTN telecommunications base-station for the technical camp
Extent and duration of impact:	Local, long-term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Low negative
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:	Low
Proposed mitigation:	<p>Mitigation measures are limited.</p> <p>This area of 10 000m² would be lost to Hakskeen Pan once covered with filling material. Compared to the majestic proportions of the pan this area is insignificant. It would predictably not have any material effect on the overall ecological functioning of the pan.</p> <p>The embankments of disused roads are still crisscrossing the pan. These have altered preferential flow paths and probably have altered the ecological functioning of the pan as well in ways that still have to be scientifically determined. It would probably be of ecological benefit if these embankments could be removed and the material used for the infilling of the raised area of the technical camp.</p>

Cumulative impact post mitigation:	Low - negative
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 freshwater ecosystems
Nature of impact:	Water provision. Additional pipelines will likely be trenched through the pan to provide additional water to the Speedweek camp and the technical camp.
Extent and duration of impact:	Local, long-term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Low negative
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:	Low
Proposed mitigation:	Mitigation measures are limited. The impact of trenching the new pipeline is of importance. Again, like all of the other aspects of the project that involves digging into the Hakskeen Pan surface, followed by backfilling, levelling and smoothing over the disturbed surface, nature is relied upon to finally "heal" the wounds. Once the pan has flooded with resulting resettlement of the suspended sediments, it is hoped that the original crust will form, without any sign left of the disturbance. This is not regarded as an impact of critical importance.
Cumulative impact post mitigation:	Low - negative
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 freshwater ecosystems
Nature of impact:	Presence of people on the pan
Extent and duration of impact:	Local, during construction phase and operational phase (short-term)
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Medium negative
Cumulative impact prior to mitigation:	Moderate 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:	High
Proposed mitigation:	Visitors and spectators during speed record attempts should be limited to demarcated areas in order to prevent trampling.

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

Potential impact on biological aspects:	Impact on Flora
Nature of impact:	<ul style="list-style-type: none"> • Most of the impacts on plant species will occur during the construction phase of the facilities, as most of the land clearing activities will take place during this phase. • As a result of the construction activities fragmentation, degradation or compression may occur if heavy construction vehicles are not kept to the demarcated roads. Roads may also lead to an increase in erosion especially on the edges. • Storing of construction material, mixing of concrete or collection and delivering could result in pollution. • Invasive and/or exotic species could become established in the area. These species may also compete with indigenous species and will degrade the veld condition by making it unfeasible for other land-uses such as livestock grazing.
Extent and duration of impact:	Local, long term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Very low
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely
Cumulative impact prior to mitigation:	Medium 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:	Medium
Proposed mitigation:	<ul style="list-style-type: none"> • A management plan for the control of invasive and exotic plant species needs to be implemented. Specialist advice should be used in this regard. This plan should include pre-treatment, initial treatment and follow-up treatment and should be planned and budgeted for in advance. • A control of access should be implemented for all remaining natural areas to prevent unnecessary destruction of habitats or disturbance of species. It is also vital that no additional fragmentation occurs and that all roads are clearly demarcated and kept to without any exceptions. No vehicles or personnel are permitted outside of these demarcated roads. • The speed events area should be fenced in in order to reduce human and vehicle traffic to areas outside of the demarcated area. • Ensure drivers are informed that off-road travelling is prohibited except where otherwise not practically feasible. • It is vital that if any protected, endemic, rare or vulnerable species occurs on the proposed site that these species should be protected and/or left undisturbed. Only as an exception can these species be relocated to favourable sites with the use of a specialist prior to vegetation removal. • The vegetation removal during the construction phase should be controlled and very specific.
Cumulative impact post mitigation:	Low – negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low negative

Potential impact on biological aspects:	Impact on Fauna
Nature of impact:	<p>Most of the impacts on faunal species will occur during the construction phase of the campsites, the fuel depot and associated infrastructure, as most of the concentrated movement and activities will take place during this phase and thus habitat loss for the various faunal species that are dependent on floral communities for shelter and food.</p> <p>As a result of the sudden increase in activities, humans, noise and vehicles, possible fragmentation, degradation or compression may occur, especially if vehicles are not kept to the demarcated roads. Roads may also lead to an increase in erosion especially on the edges. Storing of construction materials, mixing of concrete or collection and delivering could result in pollution.</p> <p>Invasive and/or exotic species could become established in the area. These species may also compete with indigenous species and will degrade the surrounding condition by destroying the sparse vegetation that already characterises the area.</p>
Extent and duration of impact:	Regional, Short - term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely
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:	Medium
Proposed mitigation:	<ul style="list-style-type: none"> • A management plan for the control of invasive and exotic plant species needs to be implemented. Specialist advice should be used in this regard, refer to the vegetation study as to invasive identified on-site. Priority species should be identified first, in this case, the category invaders, and a management plan should be established for each of the priority species. This plan should include pre-treatment, initial treatment and follow-up treatment and should be planned and budgeted for in advance. • A control of access should be implemented for all remaining natural areas to prevent unnecessary destruction of habitats or disturbance of species. Human and vehicles movement should stay out of the dunes as well. It is also vital that no additional fragmentation occurs and that all roads are clearly demarcated and kept to a minimum without any exceptions. No vehicles or personnel are permitted outside of these demarcated roads. • Maintenance of roads should be implemented. It is vital that if any endemic, rare or vulnerable species occurs on the proposed site or encountered that these species should be protected and/or left undisturbed. Only as an exception can these species be relocated to favourable sites with the use of a specialist prior to vegetation and habitat removal. Threatened species are not allowed to be disturbed in any way.
Cumulative impact post mitigation:	Low – negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low – Medium - Negative

Potential impacts on socio-economic aspects:	
Nature of impact:	Creation of employment and business opportunities during the event planning and preparation phase
Extent and duration of impact:	Local - Regional. Short term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A. This is a positive impact
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High - positive
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	No mitigation measures are required.
Cumulative impact post mitigation:	Opportunity to up-grade and improve skills levels in the area.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	High - positive

Potential impacts on socio-economic aspects:	
Nature of impact:	Benefits to local tourism sector associated with planning and preparation phase
Extent and duration of impact:	Local - Regional. Short term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A. This is a positive impact
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High - positive
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	No mitigation measures are required.
Cumulative impact post mitigation:	Opportunity to up-grade and improve tourist skills levels in the area.
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:	Creation of employment and business opportunities during the construction phase and socio-economic benefits and opportunities for local residents and the economy of the area associated with a reliable water supply
Extent and duration of impact:	Local - Regional. Permanent
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A. This is a positive impact
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High - positive
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	No mitigation measures are required.
Cumulative impact post mitigation:	Opportunity to up-grade and improve skills levels in the area.
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:	Cellular coverage for visitors to Bloodhound and other events on Hakskeen Pan and local community in the Mier area. These benefits include improved communication, access to emergency services and opportunities to access to the internet in local schools and households
Extent and duration of impact:	Local - Regional. Permanent
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A. This is a positive impact
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High - positive
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	No mitigation measures are required.
Cumulative impact post mitigation:	Improved communication and benefits for local schools and scholars associated with access to internet
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:	Potential impacts on family structures and social networks associated with the presence of workers
Extent and duration of impact:	Local – Short term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	No in case of HIV and AIDS
Degree to which the impact may cause irreplaceable loss of resources:	Yes, if people contract HIV/AIDS. Human capital plays a critical role in communities that rely on farming for their livelihoods
Cumulative impact prior to mitigation:	N/A
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:	Low
Proposed mitigation:	<ul style="list-style-type: none"> Where possible, the proponent should implement a 'locals first' policy for construction jobs, specifically semi and low-skilled job categories. This will reduce the potential impact that this category of worker could have on local family and social networks; The proponent should consider the establishment of a Monitoring Forum (MF) for the key components associated with the preparation of site for the Bloodhound event. The MF should be established before these activities commence and should include key stakeholders, including representatives from Bloodhound, local community, local municipality and provincial government. The role of the MF would be to monitor the establishment phase and the implementation of the recommended mitigation measures. The MF should also be briefed on the potential risks to the local community associated with construction workers; The proponent and the appointed contractors should, in consultation with representatives from the MF, develop a Code of Conduct for the establishment phase. The code should identify what types of behaviour and activities by workers are not permitted, specifically non-local workers. Workers that

	<p>breach the code of good conduct should be dismissed. All dismissals must comply with the South African labour legislation;</p> <ul style="list-style-type: none"> • The proponent and the contractor should implement an HIV/AIDS awareness programme for all workers at the outset of the establishment phase; • The movement of workers on and off the site should be closely managed and monitored by the contractors. In this regard the contractors should be responsible for making the necessary arrangements for transporting workers to and from site on a daily basis; • Where possible, the contractor should make necessary arrangements to enable workers from outside the area to return home over weekends. This would reduce the risk posed by non-local workers to local family structures and social networks; • The contractor should make the necessary arrangements for ensuring that all nonlocal construction workers are transported back to their place of residence once the establishment phase is completed. This would reduce the risk posed by non-local construction workers to local family structures and social networks; • Non-local workers should be accommodated on the site.
Cumulative impact post mitigation:	Impacts on family and community relations that may, in some cases, persist for a long period. Also in cases where unplanned / unwanted pregnancies occur or members of the community are infected by an STD, specifically HIV and or AIDS, the impacts may be permanent and have long term to permanent cumulative impacts on the affected individuals and/or their families and the community.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - Negative

Potential impacts on socio-economic aspects:	
Nature of impact:	Potential safety and security risk posed by presence of workers on site
Extent and duration of impact:	Local – Short term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	No, if local residents are murdered or physically harmed
Degree to which the impact may cause irreplaceable loss of resources:	Yes, if family member is murdered
Cumulative impact prior to mitigation:	N/A
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:	<ul style="list-style-type: none"> • Bloodhound should investigate the option of establishing a Monitoring Forum (MF) that includes local farmers and develop a Code of Conduct for workers. Should such a MF be required it should be established prior to commencement of the establishment phase. The Code of Conduct should be signed by Bloodhound, local farmers, the community and contractors before the establishment phase commences and the contractors move onto site; • The Code of Conduct should identify what types of behaviour and activities by workers are not permitted. The contractors appointed by Bloodhound should also ensure that all workers are informed at the outset of the establishment phase of the conditions contained on the Code of Conduct, specifically

	<p>consequences of stock theft and trespassing on adjacent farms;</p> <ul style="list-style-type: none"> Workers who breach the code of good conduct should be dismissed. All dismissals must comply with the South African labour legislation; Bloodhound should enter into an agreement with the affected landowners whereby Bloodhound will compensate for damages to farm property and disruptions to farming activities. This includes losses associated with stock theft and damage to property etc. This agreement should be finalised before the commencement of the establishment phase; The movement of workers on and off the site should be closely managed and monitored by contractors appointed by Bloodhound. In this regard the contractors should be responsible for ensuring that workers respect the rights of local farmers and do not pose safety and security threat to them and their families; The Environmental Management Plan (EMP) for the construction phase must outline procedures for managing and storing waste on site, specifically plastic waste that poses a threat to livestock if ingested; Non-local workers should be accommodated on the site.
Cumulative impact post mitigation:	None
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - Negative

Potential impacts on socio-economic aspects:	
Nature of impact:	Potential loss of livestock, crops and houses, damage to farm infrastructure and threat to human life associated with increased incidence of grass fires
Extent and duration of impact:	Local – Short term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Yes, compensation paid for stock and losses and damage etc.
Degree to which the impact may cause irreplaceable loss of resources:	No
Cumulative impact prior to mitigation:	No, provided losses are compensated for.
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:	<ul style="list-style-type: none"> Bloodhound should ensure that open fires on the site for cooking or heating are not permitted except in designated areas. Open fires should not be established in the vicinity of the grassed dunes to the east of the pan; No smoking should be permitted on the site, except in designated areas; Bloodhound should ensure that construction related activities that pose a potential fire risk are properly managed and are confined to areas where the risk of fires has been reduced. Measures to reduce the risk of fires include clearing working areas and avoiding working in high wind conditions when the risk of fires is greater. In this regard special care should be taken during the high risk dry, windy winter months; Bloodhound should provide adequate fire fighting equipment on-site; Bloodhound should provide fire-fighting training to selected construction staff; As per the conditions of the Code of Conduct, in the advent of a

	fire being caused by construction workers and or construction activities, the appointed contractors should compensate farmers for any damage caused to their farms. The contractor should also compensate the fire fighting costs borne by farmers and local authorities.
Cumulative impact post mitigation:	None
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - Negative

Potential impacts on socio-economic aspects:	
Nature of impact:	Potential disruption and safety impacts associated with movement of vehicles along the R360
Extent and duration of impact:	Local - Regional – Short term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Yes
Degree to which the impact may cause irreplaceable loss of resources:	No
Cumulative impact prior to mitigation:	Increased safety risk for other road users over the 4-5 month period associated with the preparation for and hosting of the Bloodhound event
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:	Low
Proposed mitigation:	<ul style="list-style-type: none"> • High speed testing on the R360 should be put on hold during for a four to five month period leading up to and during the hosting of the Bloodhound event; • The movement of heavy vehicles should be confined to daylight hours; • The movement of heavy vehicles should take between Monday and Friday so as to avoid weekends when tourists and members of the community are more likely to be using the R 360. • All vehicles must be road-worthy and drivers must be qualified, made aware of the potential road safety issues, and need for strict speed limits.
Cumulative impact post mitigation:	None
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - Negative

Potential impacts on cultural-historical aspects:	Impacts at the proposed development: All pan and pan-side localities
Nature of impact:	Acts or activities resulting in disturbance of surfaces and/or sub-surfaces containing artefacts (causes) resulting in the destruction, damage, excavation, alteration, removal or collection from its original position (consequences), of any archaeological material or object (what affected).
Extent and duration of impact:	Local, Permanent
Probability of occurrence:	Improbable,
Degree to which the impact can be reversed:	None
Degree to which the impact may cause irreplaceable loss of resources:	Yes
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:	<ul style="list-style-type: none"> Manage development in the dune area and salvage Stone Age material which could be used in a tourist information panel. Provision for on-going heritage monitoring in a project environmental management plan which also provides guidelines on what to do in the event of any major heritage feature being encountered during any phase of development or operation. Avoid impact on the grave site identified in this study.
Cumulative impact post mitigation:	Expansion of the development with time would lead to cumulative impacts, which should be managed in a heritage management plan component of the environmental management plan.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low - Neutral

Potential impacts on cultural-historical aspects:	Impacts at the proposed development: Grave site
Nature of impact:	Acts or activities resulting in disturbance of surfaces and/or sub-surfaces containing artefacts (causes) resulting in the destruction, damage, excavation, alteration, removal or collection from its original position (consequences), of any archaeological material or object (what affected).
Extent and duration of impact:	Local, Permanent
Probability of occurrence:	Improbable,
Degree to which the impact can be reversed:	None
Degree to which the impact may cause irreplaceable loss of resources:	Yes
Cumulative impact prior to mitigation:	Medium - 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:	<ul style="list-style-type: none"> Impacting the grave to be avoided. No go area. Provision for on-going heritage monitoring in a project environmental management plan which also provides guidelines on what to do in the event of any major heritage feature being encountered during any phase of development or operation. Avoid impact on the grave site identified in this study.
Cumulative impact post mitigation:	Expansion of the development with time would lead to cumulative impacts, which should be managed in a heritage management plan component of the environmental management plan.
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Very Low - Negative

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

Proposed mitigation:	Noise mitigation measures are dealt with in the EMP.
Cumulative impact post mitigation:	Negligible
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Negligible

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:	Low
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:	Medium
Proposed mitigation:	Mitigation measures are dealt with in the EMP.
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:	Impact of the Bloodhound SSC
Extent and duration of impact:	Regional, during construction phase and operational phase (short-term)
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Medium negative
Cumulative impact prior to mitigation:	Moderate 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:	High
Proposed mitigation:	<p>Mitigation measures are limited.</p> <p>The wheels of Bloodhound SSC are solid. With a weight of 7.5 tons and solid wheels the car is bound to make some impression in the crust, even though the car has a technically advanced suspension.</p> <p>The track is only a small portion of the vast expanse of the entire Hakskeen Pan.</p> <p>Hence it is not expected that the Bloodhound SCC would have any discernible impact on biota in the soil. Exactly what the local impact right on the track might be needs to be established with scientific research.</p> <p>It is expected that once the speed record event is over and once the pan is flooded again, the tracks of the Bloodhound SCC would be erased, the crust would crack as always and that there would be no trace of the event left. The impact is temporary.</p> <p>It may impact more on soft salt cover patches, but these are only a small part of the track. To verify this assumption, the soft salt cover patches will have to be surveyed and mapped.</p>
Cumulative impact post mitigation:	Medium - negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium - negative

Potential impacts on geographical and physical aspects:	Potential impact on freshwater ecosystems
Nature of impact:	<p>Sanitation.</p> <p>Pollution of the pan and underground water from spillages or leakages from conservancy tanks or the collection and transport of raw sewage.</p> <p>A services engineering report must still be completed for the pan, but it is envisaged that an additional conservancy tank be installed, probably closer to the proposed technical camp. There is an existing conservancy tank at the Speedweek camp which gets emptied by a tanker truck and transported off site.</p>
Extent and duration of impact:	Local, during construction phase and operational phase (long-term)

Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Very low
Degree to which the impact may cause irreplaceable loss of resources:	Medium negative
Cumulative impact prior to mitigation:	Moderate negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	<p>Untreated sewage pollution is a serious concern, and the mitigation measures must be adhered to and enforced in the EMP.</p> <ul style="list-style-type: none"> The conservancy tanks must be constructed out of heavy concrete or similar water tight materials These should be of a permanent nature and be used in future for upcoming events. The conservancy tanks must be emptied on a regular basis by a licenced service provider. The service provider must provide a Method Statement to the ECO The conservancy tank must be maintained and inspected for cracks etc. on a regular basis by the municipality Abluting anywhere besides designated ablution facilities must be strictly prohibited. Sufficient temporary ablution facilities (chemical toilets) must be provided for staff and for spectators/visitors. These must be maintained and emptied on a regular basis.
Cumulative impact post mitigation:	Low - negative
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 freshwater ecosystems
Nature of impact:	Solid Waste. Leachate from solid waste impacting on the pan
Extent and duration of impact:	Local, during construction phase and operational phase (long-term)
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Medium negative
Cumulative impact prior to mitigation:	Medium negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	<p>Waste is to be collected and transported off-site, from where it can be separated, recycles and disposed of on a sanitary landfill. To conduct these actions on Hakskeen Pan is deemed to be too risky, from an environmental impact point of view.</p> <p>It is foreseen that general solid waste is to be collected on-site in conventional 240 litre wheelie bins, from where it is uploaded on</p>

	<p>compacter trucks provided with mechanical lifts. This is at both the technical camp and the Speedweek venue.</p> <p>However, if larger numbers of visitors and spectators generate larger amounts of waste, perhaps the larger dumpster (locally known as “skips”) are appropriate, together with truck and lift that can handle this kind of equipment.</p>
Cumulative impact post mitigation:	Low - negative
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 freshwater ecosystems
Nature of impact:	<p>Storage of fuels</p> <p>Fuel leaks or spillages could contaminate the pan with significant impacts on</p>
Extent and duration of impact:	Local, during operational phase (short-term)
Probability of occurrence:	Probable (improbable with mitigation)
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Medium negative
Cumulative impact prior to mitigation:	Medium 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:	High
Proposed mitigation:	<p>Fuel will be stored in tanker trucks, which will then decant fuel into a smaller bowser which will then fill up the Bloodhound SSC.</p> <ul style="list-style-type: none"> • Apart from bunds that should be built around the tanker parking area, no other hard structures would be necessary. These bunds are meant to retain fuel, should there be a leak. The bunted area should be large enough to contain the volume of the tank. • It would be preferable that the bunds are built at the very boundary of the pan or even outside of the pan. This would decrease the risk. Hard structures on the pan floor would not be a preferable option. • Drip trays should also be considered during decanting and refuelling of vehicles. • All other vehicles (support vehicles, busses etc) used on the site should preferably be refuelled off-site. • Support vehicles must be checked on a regular basis for fuel and oil leaks
Cumulative impact post mitigation:	Low - negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - negative

Potential impact biological aspects:	Impact on Flora
Nature of impact:	<ul style="list-style-type: none"> • Once in operation the speed events may have an increase of vehicle traffic in the area. Pathways should be clearly demarcated and kept to. • Exotic/invasive species may become established and be distributed. The invaders that are currently within the area may be distributed to other areas as well. If not managed and eradicated before they are distributed, these species will become a serious problem in the future, inhibiting any rehabilitation actions. • Staff and spectators will access remaining natural areas if not prohibited. • Storage of fuel or hydrocarbons could lead to spills causing pollution to surrounding environment. • Increased domestic waste generated during speed events.
Extent and duration of impact:	Local, long term
Probability of occurrence:	Highly likely
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely
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:	Medium
Proposed mitigation:	<ul style="list-style-type: none"> • A management plan for control of invasive/exotic plant species needs to be implemented. Specialist advice should be used in this regard. Priority species should be identified first and a management plan should be established for each of the priority species. This plan should include pre-treatment, initial treatment and follow-up treatment and should be planned and budgeted for in advance. • Staff and spectators should be discouraged / prohibited from entering and disturbing the surrounding natural areas. Management systems should be set in place to prevent any form of additional disturbance from occurring, for example fencing of certain areas. • Ensure drivers are informed that off-road travelling is prohibited except where otherwise not practically feasible. • Continuous rehabilitation of the area should be implemented during the operational phase. • Ensure awareness amongst all staff, contractors and visitors to site to not needlessly damage flora and ensure they stay clear from the remaining natural areas as far as possible. • Limit activities (transport etc.) to the smallest area possible. This is to prevent fragmentation that may have irreversible changes to flora communities. It also increases the invasion of exotic/invasive species. • Regularly maintain equipment to reduce risk of hydrocarbon leaks, and have communication channels set up to report incidences and action plans in place to address issues immediately. • Ensure adequate domestic waste bins are supplied and that domestic waste is removed by a reputable contractor. Adhere to the waste management plan.
Cumulative impact post mitigation:	Low – negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low negative

Potential impact biological aspects:	Impact on Fauna
Nature of impact:	<p>Once in operation the activity may have an increase of traffic in the area, but only for short bursts of time. Pathways should be clearly demarcated and kept to.</p> <p>Exotic/invasive species may become established and be distributed. The category invaders that are currently within the area may be distributed to other areas as well. If not managed and eradicated before they are distributed, these species will become a serious problem in the future.</p> <p>Staff and visitors will access remaining natural areas if not prohibited. Trampling and compaction is a threat in certain vegetated areas. In time prolonged activity and movement of humans into the outcrops of the pan areas will decrease the natural condition thus decreasing the already limited carrying capacity of the local environment. Bush encroachment or desertification may also become a problem if the access control is not strictly managed and applied.</p>
Extent and duration of impact:	Regional, Permanent
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely
Cumulative impact prior to mitigation:	Medium – High - negative
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium – High - Negative
Degree to which the impact can be mitigated:	Low medium
Proposed mitigation:	<ul style="list-style-type: none"> • Priority species, such as the protected birds, specifically nests if encountered should be identified first and a management plan should be established for each of the priority species. Control access within demarcated zones and strictly implement it. This may prevent bush encroachment or desertification of the outcrops of the pan from occurring. • Maintenance of roads should be implemented. This includes soil humps to reduce speed or speed limit indication. It is recommended that no activity be on the pan after rains and until the soil has completely dried out. This will prevent the water contamination, compaction and prevent major erosion (caused by human activities and vehicles). • Continuous rehabilitation and clean-up of the area should be implemented during the operational phase. • Ensure awareness amongst all staff, contractors and visitors to site to not needlessly damage vegetation or hinder animals encountered and ensure they stay clear from the remaining natural areas as far as possible. • Limit activities (transport etc.) to the smallest area possible. This is to prevent fragmentation that may have irreversible changes to faunal communities. It also increases the invasion of alien/foreign species.
Cumulative impact post mitigation:	Low – negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Medium - negative

Potential impacts on the socio-economic aspects:	
Nature of impact:	Creation of on and off-site employment and business opportunities associated with the hosting of the Bloodhound event
Extent and duration of impact:	Local – Regional , Short-term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A, the impact is a positive impact
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A, the impact is a positive impact
Proposed mitigation:	<p>Recommended enhancement measures In order to enhance local employment and business opportunities associated with the activities associated with the hosting of the Bloodhound event the following measures should be implemented:</p> <p>Employment</p> <ul style="list-style-type: none"> • Implement a training and skills development programmes for locals at least 3 months prior to the event in order to maximise employment opportunities for local community members from Mier; • Where reasonable and practical the local service providers that meet required Broad Based Black Economic Empowerment (BBBEE) criteria should be appointed; • Where and reasonably practical a 'locals first' policy, especially for semi and lowskilled job categories should be implemented. However, due to the low skills levels in the area, the majority of skilled positions are likely to be filled by people from outside the area; • Representatives from Bloodhound and the Northern Cape Government should meet with representatives from the DKLM and key organisations in the area, such as the Upington Chamber of Commerce, to identify local service providers and establish database for the project; • The recruitment selection process should seek to promote gender equality and the employment of women wherever possible. • Also, as indicated above, a car wash service should be provided by the local community in the proposed parking area located to the north of the R360. <p>Business</p> <ul style="list-style-type: none"> • The Northern Cape Provincial Government should develop a database of local companies, specifically Broad Based Black Economic Empowerment (BBBEE) companies, which qualify as potential service providers (e.g. catering companies, waste collection companies, security companies, transport companies etc.) before the end of February 2017. These companies should be notified of the services required and be invited to bid for Bloodhound related work; • The Northern Cape Provincial Government, in consultation with

	<p>the DKLM, representatives from the Mier community and key organisations in the area, such as the Upington Chamber of Commerce, should identify strategies aimed at maximising the potential benefits for local companies associated with the project. This includes providing information on potential opportunities, such as catering, shuttle services, security etc.</p> <ul style="list-style-type: none"> • The Northern Cape Provincial Government should provide local SMMEs and or members of the Mier community with training and financial assistance to enable them to benefit from the provision of services, such as catering, cleaning etc. The financial assistance may include funding to purchase catering and cleaning equipment etc.; • The Northern Cape Provincial Government should explore opportunities for mentoring and joint ventures with local SMMEs from Mier in order to maximise local benefits and enhance the legacy potential of the Bloodhound event. <p>Note that while preference to local companies is recommended, it is recognised that a competitive tender process may not guarantee the appointment of local service</p>
Cumulative impact post mitigation:	Creation of additional employment, business and economic opportunities in the area
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	High - Positive

Potential impacts on the socio-economic aspects:	
Nature of impact:	Creation of opportunities for the hospitality and tourism sector associated with hosting the Bloodhound event over a three month period
Extent and duration of impact:	Local – Regional , Short-term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A, the impact is a positive impact
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A, the impact is a positive impact
Proposed mitigation:	<p>Recommended enhancement measures</p> <p>The key recommendations contained in the Bloodhound Integrated Development Strategy (BHIDS) prepared by Urban Econ in 2013 should be implemented. These should be implemented by the end of February 2017. Representatives from Bloodhound, the Steering Committee should liaise with representatives from the DKLM, the local tourism sector and business organisations, such as the Upington Chamber of Commerce to identify the measures that need to be implemented to address the potential challenges associated with providing accommodation and services for the large number of visitors that are expected to descend on the area, specifically during the last month of the event.</p> <p>In addition, the following issues need to be addressed in order to</p>

	<p>enhance the visitor experience to the area:</p> <ul style="list-style-type: none"> • Provide additional and more cost effective flights to Upington from Johannesburg and Cape Town; • Increase the number of rental cars at Upington Airport; • Establish a Bloodhound Information Desk at Upington Airport to provide visitors with information on the event, including, times, distances, transport options, location of petrol stations and shops, tourist related activities, accommodation, eating out options, etc.; • Brief local accommodation sector on standard quality and service requirements, specifically for overseas visitors, such as free wi-fi etc. <p>The Upington Chamber of Commerce also indicated that local accommodation providers should be encouraged not to overly inflate their rates to take advantage of the influx of visitors to the area as this would impact negatively on visitor experiences, which in turn would reflect poorly on the tourism sector as a whole.</p> <p>The facilities and services at the site that would enhance visitor experience include:</p> <ul style="list-style-type: none"> • Clean, safe, secure and well serviced accommodation; • Clean, well equipped ablution and shower facilities; • Media / Computer Centre where visitors can check e-mails, down load and print document etc.; • Free wi-fi and cell phone charging facilities; • Food market with a wide range of food options, including catering for vegetarians. The opportunity should be used to highlight local, traditional foods from the area and the Northern Cape; • Small convenience shop where basis necessities can be purchased; • Child care facility; • Mobile electronic banking facilities; • Well established craft market area; • Opportunity to hire mountain bikes so that people can ride around the area and Hakskeen Pan; • Safe, controlled parking area; • Shuttle services from the parking and accommodation area to the track and the hospitality areas. <p>Live entertainment (music, stand-up comedy, dancing etc) has also been identified as key visitor service. It is recommended that the entertainment area should be modelled on the Fan Park Concept that was used during the 2010 World Soccer Cup on South Africa. This would include equipping the area with large TV screens and high quality sound equipment which would enable visitors to watch the Bloodhound tests live. The opportunity should be used to highlight local, traditional music and dances.</p>
Cumulative impact post mitigation:	Promotion of social and economic development and improvement in the overall well-being of the community
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	High - Positive

Potential impacts on the socio-economic aspects:	
Nature of impact:	Establish Hakskeen Pan as an international high speed venue and raise profile of Northern Cape and South Africa
Extent and duration of impact:	Local, Regional and National, Long-term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A, the impact is a positive impact
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A, the impact is a positive impact
Proposed mitigation:	<p>Recommended mitigation measures</p> <p>Hosting of the Bloodhound event represents an enhancement measure in itself.</p> <p>However, in order to maximise the benefits of the event the recommendations contained in the BHIDS report by Urban Econ (2013) are implemented, specifically with regard to enhancing tourist related opportunities. This includes:</p> <ul style="list-style-type: none"> • Implementing awareness raising campaign; • Up-dating tourism websites.
Cumulative impact post mitigation:	Raise profile of Upington and attract visitors and business to the area
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	High - Positive

Potential impacts on the socio-economic aspects:	
Nature of impact:	Potential impacts on family structures and social networks associated with the presence of workers and visitors
Extent and duration of impact:	Local, Short -term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	No in case of HIV and AIDS
Degree to which the impact may cause irreplaceable loss of resources:	Yes, if people contract HIV/AIDS. Human capital plays a critical role in communities that rely on farming for their livelihoods
Cumulative impact prior to mitigation:	N/A
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:	Low
Proposed mitigation:	<p>Recommended mitigation measures</p> <p>The potential risks associated with construction workers can be mitigated. The aspects that should be covered include:</p> <ul style="list-style-type: none"> • Implement a training and skills development programmes for locals at least 3 months prior to the event in order to maximise

	<p>employment opportunities for local community members from Mier;</p> <ul style="list-style-type: none"> • Where possible, the Bloodhound and the Northern Cape Government should implement a 'locals first' policy for work opportunities, specifically semi and lowskilled job categories. This will reduce the potential impact that this category of worker could have on local family and social networks; • Bloodhound and the Northern Cape Government proponent should consider the establishment of a Monitoring Forum (MF) for the key components associated with the hosting of the Bloodhound event. The MF should be established before these activities commence and should include key stakeholders, including representatives from Bloodhound, local community, local municipality and provincial government. • The role of the MF would be to monitor the establishment phase and the implementation of the recommended mitigation measures. The MF should also be briefed on the potential risks to the local community associated with workers and visitors; • Bloodhound and the Northern Cape Government and the appointed service providers should, in consultation with representatives from the MF, develop a Code of Conduct for the event hosting phase. The code should identify what types of behaviour and activities by workers are not permitted, specifically non-local workers. Workers that breach the code of good conduct should be dismissed. All dismissals must comply with the South African labour legislation; • Bloodhound and the Northern Cape Government should implement an HIV/AIDS awareness programme for members from the local community and all workers involved in hosting the event; • The movement of workers on and off the site should be closely managed and monitored by the service providers. In this regard the service providers should be responsible for making the necessary arrangements for transporting all non-local workers to and from site on a daily basis; • The contractor should make the necessary arrangements for ensuring that all nonlocal workers are transported back to their place of residence once the event is over. This would reduce the risk posed by non-local construction workers to local family structures and social networks; • Non-local workers should be accommodated on the site where possible.
Cumulative impact post mitigation:	Impacts on family and community relations that may, in some cases, persist for a long period. Also in cases where unplanned / unwanted pregnancies occur or members of the community are infected by an STD, specifically HIV and or AIDS, the impacts may be permanent and have long term to permanent cumulative impacts on the affected individuals and/or their families and the community.
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:	Potential loss of livestock, crops and houses, damage to farm infrastructure and threat to human life associated with increased risk of grass fires
Extent and duration of impact:	Local, Short -term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Yes, compensation paid for stock and losses and damage etc.
Degree to which the impact may cause irreplaceable loss of resources:	No
Cumulative impact prior to mitigation:	N/A
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:	<ul style="list-style-type: none"> • Visitors should be informed of potential fire risks; • No open fires and or smoking should be permitted, except in designated areas; • Bloodhound should provide adequate fire fighting equipment on-site. This equipment should be made available to fight fires on adjacent farms if and when required; • Bloodhound should provide fire-fighting training to selected staff. These staff should be made available to assist farmers to fight fires on adjacent farms if and when required; • In the advent of a fire being caused by event related activities on the site, Bloodhound should compensate farmers for any damage caused to their farms. • Bloodhound should also compensate the fire fighting costs borne by farmers and local authorities.
Cumulative impact post mitigation:	No, provided losses are compensated for.
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:	Potential disruption and safety impacts associated with movement of event vehicles along the R360
Extent and duration of impact:	Local - Regional, Short -term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Yes
Degree to which the impact may cause irreplaceable loss of resources:	No
Cumulative impact prior to mitigation:	N/A
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:	<p>The potential risks associated with the movement of vehicles can be risks can be reduced. The aspects that should be covered include:</p> <ul style="list-style-type: none"> • Bloodhound and the Provincial Traffic Authorities should

	<p>develop and implement a traffic management programme for the 3-4 month event period. This should include implementing a high visibility programme and speed control measures along the R360;</p> <ul style="list-style-type: none"> • High speed testing on the R360 should be put on hold during for a four to five month period leading up to and during the hosting of the Bloodhound event; • The movement of heavy service vehicles should be confined to daylight hours.
Cumulative impact post mitigation:	Increased safety risk for other road users over the 4-5 month period associated with the preparation for and hosting of the Bloodhound event
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:	Legacy benefits for the Mier area and Northern Cape associated with the Bloodhound project and establishment of Hakskeen Pan as an international high speed venue
Extent and duration of impact:	Local, Regional and National, Long -term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	No
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	High - Negative
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	<p>Recommended mitigation measures</p> <p>The recommendations contained in the BHIDS (2013) study should be implemented. In addition, the option of combining the Bloodhound Museum / Visitor Centre with the Khomani San Museum and Craft Centre should be investigated.</p> <p>School tours for local schools in the DKLM should also be organised during the first 2 months of the Bloodhound event when there are expected to be less visitors on the site.</p> <p>With regard to establishing a local Mier based service provider that can provide catering, camping, cleaning, ablution, logistics and other services for large events held on the pan and the surrounding area, the option of a local, privately owned SMME or a Community Trust type option should be explored and discussed with representatives from the Northern Cape Provincial Government, DKLM and the Mier community. As indicated above, a well-run and managed Community Trust option is more likely to create an opportunity to generate funds for community initiatives as opposed to privately owned SMME.</p>
Cumulative impact post mitigation:	Promotion of social and economic development and improvement in the overall well-being of the community
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	High - 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:	Potential noise related impacts associated with high speed testing
Extent and duration of impact:	Local, Short -term
Probability of occurrence:	Probable
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
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:	Very low
Proposed mitigation:	Recommended mitigation measures Recommended that no testing take place at night when the potential for noise impacts is greater.
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low - Negative

Potential visual impacts:	
Nature of impact:	No significant visual impacts are expected
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:

Potential impact biological aspects:	Impact on Flora
Nature of impact:	<ul style="list-style-type: none"> Once in operation the speed events may have an increase of vehicle traffic in the area. Pathways should be clearly demarcated and kept to. Exotic/invasive species may become established and be distributed. The invaders that are currently within the area may be distributed to other areas as well. If not managed and eradicated before they are distributed, these species will become a serious problem in the future, inhibiting any rehabilitation actions. Staff and spectators will access remaining natural areas if not prohibited. Storage of fuel or hydrocarbons could lead to spills causing pollution to surrounding environment. Increased domestic waste generated during speed events.
Extent and duration of impact:	Local, long term
Probability of occurrence:	Likely
Degree to which the impact can be reversed:	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely
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:	Medium
Proposed mitigation:	<ul style="list-style-type: none"> A management plan for control of invasive/exotic plant species needs to be implemented. This will be ongoing from the start of the development until the end of the decommissioning phase. Rehabilitation plan should be implemented. This includes the process of replanting of vegetation. Rehabilitation plans should be compiled with the use of a specialist and the correct seeding techniques and mixtures should be applied. Close monitoring of plant communities to ensure that ecology is restored and self-sustaining. The monitoring of the flora should be conducted every six months during rehabilitation by an environmental practitioner until a suitably qualified specialist deems the monitoring to no longer be necessary. A report should be written and stored to be made available and should be available at all times.
Cumulative impact post mitigation:	Low – negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low negative

Potential impact biological aspects:	Impact on Fauna
Nature of impact:	<p>Increased activity and traffic within a shorter timeframe (closure phase) may degrade the area. The possibility exists for rehabilitation to be ineffective if measures are not appropriately complied to or rehabilitation is not planned well in advance. Rehabilitation plans should be planned long before the closure phase is due. Continuous rehabilitation should also take place during the operational phase.</p> <p>Most of the impacts on floral and faunal species will occur during the construction- and operational phases. Final steps in the rehabilitation process will take place. Without the necessary mitigation measures, rehabilitation will be unsuccessful and the environment will not be self-sustaining. If these mitigation measures are not planned well in advance before the rehabilitation phase commences, the rehabilitation process will be unsuccessful.</p>
Extent and duration of impact:	Regional, long term
Probability of occurrence:	Highly likely
Degree to which the impact can be reversed:	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Unlikely
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:	Medium
Proposed mitigation:	<p>To minimize potential impacts to animal species, animals (wildlife and domestic animals) may under no circumstances be handled, removed, killed or interfered with by the Contractor, his employees, his Sub-Contractors or his Sub-Contractors' employees.</p> <p>Activities on site must comply with the regulations of the Animal Protection Act 1962 (Act No. 71 of 1962). Workers should also be advised on the penalties associated with the needless destruction of wildlife, as set out in this act.</p> <p>Ensure that an acceptable aesthetic scenario is created post closure. This will be reached through adequate rehabilitation practices by restoring damaged and degraded habitat areas.</p> <p>When closure is considered successful and rehabilitation complete, unnecessary fences should be lifted to restore larger foraging areas, especially for larger mammalian species within the area.</p>
Cumulative impact post mitigation:	Low – negative
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low medium - negative