

## **APPENDIX B - IMPACT TABLES**

**PLANNING AND DESIGN PHASE**

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
<b>ENVIRONMENTAL POLICY</b>														
Legal and policy compliance	All Alternatives	During the planning and design phase, failure to adhere to existing policies and legal obligations and obtain the necessary authorisations could lead to the project conflicting with local, provincial and national policies, legislation, etc. This could result in lack of institutional support for the project, overall project failure and undue disturbance to the natural environment.	Negative	Direct	Severe	National	Long-term	Possible	Reversible	Resource will not be lost	Achievable	<b>HIGH -</b>	<ul style="list-style-type: none"> <li>All relevant legislation and policy must be consulted and the proponent must ensure that the project is compliant with such legislation and policy.</li> <li>These should include (but are not restricted to): NEMA and Local Municipal bylaws.</li> <li>All relevant permits and authorisations including Water Use Licences or General Authorisations, Building Plan Approvals and plant removal permits must be in place prior to commencement of construction.</li> </ul>	<b>LOW -</b>
<b>BUILT ENVIRONMENT</b>														
Infrastructure	All Alternatives	During the planning and design phase, planning and placement of structures and associated infrastructure in sensitive areas could lead to the damage and degradation of natural areas as well as to the structures themselves.	Negative	Direct	Moderate	Study area	Medium-term	Possible	Reversible	Resource will not be lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>Planning for and placement of infrastructure must be done so as to avoid sensitive areas as far as possible.</li> </ul>	<b>LOW -</b>

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
Stormwater management	All Alternatives	During the planning and design phase, inadequate planning for stormwater during the construction and operational phases within the site could result in erosion and contamination of the soil and surrounding watercourses if there are not appropriate stormwater management structures in place.	Negative	Direct, Cumulative	Moderate	Study area	Medium-term	Possible	Reversible	Resource will be partly lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>A method statement must be developed by the project manager or contractor prior to construction, including considerations for stormwater, erosion, waste and alien vegetation management, as well as site rehabilitation and maintenance considerations. This method statement must be approved by the appointed ECO.</li> <li>This method statement should include stormwater management considerations to control runoff prevent erosion of the site and its surroundings, and mitigate the unnecessary loss of soil and sedimentation of watercourses during all phases of the project.</li> <li>Regular monitoring of implementation of this method statement for the rehabilitation of disturbed areas must be conducted.</li> <li>Appropriate stormwater structures, in alignment with the method statement, must be designed to minimise erosion of the surrounding environment to the extent required</li> </ul>	<b>LOW -</b>

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
Waste management	All Alternatives	During the planning and design phase, failure to plan for the storage, handling and disposal of general and hazardous waste during the construction and operation phase may lead to littering and pollution of the surrounding environment, unsanitary conditions and health risks.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will not be lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>A method statement must be developed by the project manager or contractor prior to construction, including considerations for stormwater, erosion, waste and alien vegetation management, as well as site rehabilitation and maintenance considerations. This method statement must be approved by the appointed ECO.</li> <li>This method statement should include waste management considerations for handling onsite general and hazardous waste during the construction and operation phases must be developed and implemented during construction.</li> <li>An appropriate area must be identified where waste can be stored before disposal.</li> <li>All hazardous substances such as paints, diesel and cement must be stored in a secure bunded area with an impermeable surface beneath them.</li> </ul>	<b>LOW -</b>
<b>SOCIO-ECONOMIC</b>														
Job creation	All Alternatives	During the planning and design phase, there will be some temporary job opportunities associated with planning and design of the proposed 132 KV Overhead Line.	Positive	Direct	Slight	Localised	Short-term	Definite	N/A	Resource will not be lost	Easily Achievable	<b>LOW +</b>	N/A	<b>LOW +</b>
Health and safety	All Alternatives	During the planning and design phase, failure to plan for potential health and safety risks during the construction and operation phase may result in the harm of labourers, staff, surrounding landowners and the public.	Negative	Direct, Indirect	Moderate	Study area	Short-term	Possible	Irreversible	Resource will be lost	Achievable	<b>MODERATE -</b>	A health and safety plan in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) must be drawn up by and HSE officer prior to construction to ensure workers safety.	<b>LOW -</b>

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
On-site fire risk	All Alternatives	During the planning and design phase, failure to plan for accidental fires during the construction and operation phase could result in potential harm to the public and/or surrounding landowners and their property.	Negative	Direct	Moderate	Study area	Medium-term	Possible	Irreversible	Resource will be lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>Emergency preparedness must be in place for both the construction and operational phases and before these phases commence. This should form part of the method statement.</li> <li>Eskom Holdings SOC must plan for and put measures in place to prevent and deal with fires including the provision of firefighting equipment.</li> </ul>	<b>LOW -</b>
Traffic	All Alternatives	During the planning and design phase, inadequate planning for the transportation of mast materials and specialist construction equipment to the site could cause traffic congestion.	Negative	Direct	Moderate	Regional	Short-term	Possible	Reversible	Resource will not be lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>Consultation with the local Road Traffic Unit should be done early in the planning phase and if deemed necessary, road traffic permits should be obtained for transporting parts, containers, materials and construction equipment to the site to the extent required.</li> <li>Make provision for traffic accommodation where construction activities impact on existing roads.</li> </ul>	<b>LOW -</b>
<b>REHABILITATION AND MAINTENANCE</b>														
Inadequate rehabilitation and maintenance	All Alternatives	During the planning and design phase, inadequate planning for rehabilitation and maintenance of infrastructure could lead to degradation of the study area and surrounding areas.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will be partly lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>A rehabilitation plan must be developed by the project manager or contractor as part of the method statement and implemented during construction and operation phases. This method statement must be approved by the appointed ECO.</li> </ul>	<b>LOW -</b>

**CONSTRUCTION PHASE**

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
<b>ENVIRONMENTAL POLICY</b>														
Legal and policy compliance	All Alternatives	During the construction phase, failure to adhere to existing policies and legal obligations and obtain the necessary authorisations could lead to the project conflicting with local, provincial and national policies, legislation, etc. This could result in lack of institutional support for the project, overall project failure and undue disturbance to the natural environment.	Negative	Direct	Severe	National	Long-term	Possible	Reversible	Resource will be partly lost	Achievable	<b>HIGH -</b>	<ul style="list-style-type: none"> <li>All construction related conditions in the Environmental Authorisation, EMPr and other permits must be adhered to.</li> <li>Eskom Holdings SOC must employ an independent Environmental Control Officer (ECO) for the construction phase to ensure that construction is implemented according to specifications in the EA and EMPr.</li> <li>Copies of all applicable licenses, permits and managements plans (EA, EMPr, etc.) must be available on-site at all times.</li> <li>Environmental Awareness Training must be included in site meetings/talks with all workers.</li> </ul>	<b>LOW -</b>
<b>BUILT ENVIRONMENT</b>														
Infrastructure	All Alternatives	During the construction phase, the disturbance/clearing of vegetation and construction activities within or within close proximity to sensitive areas may result in degradation of the surrounding environment.	Negative	Direct, Indirect	Severe	Study area	Long-term	Definite	Reversible	Resource will be lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>Vegetation clearance must be limited to the area within the footprint of the designated area.</li> <li>Vegetation disturbance outside of the development footprint should be minimized.</li> </ul>	<b>LOW -</b>
Material stockpiling	All Alternatives	During the construction phase, inappropriate location and management of material stockpiles may result in erosion.	Negative	Direct, Indirect	Moderate	Localised	Short-term	Possible	Reversible	Resource will not be lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>Material stockpiles must be located away from sensitive areas and they must be monitored for erosion and alien vegetation.</li> <li>Material stockpile locations must be approved by the ECO.</li> </ul>	<b>LOW -</b>
Stormwater management	All Alternatives	During the construction phase, failure to implement effective stormwater management measures may result in increased surface soil erosion and contamination of stormwater and resulting surrounding watercourses.	Negative	Direct, Indirect	Moderate	Study area	Long-term	Possible	Reversible	Resource will not be lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>The construction site must be managed in a manner that prevents pollution to downstream watercourses or groundwater, due to suspended solids, silt or chemical pollutants.</li> <li>Berms and swaths must be placed in areas that may be prone to erosion.</li> <li>Temporary cut-off drains and berms may be required to capture storm water and promote infiltration.</li> </ul>	<b>LOW -</b>

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Waste management	All Alternatives	During the construction phase, poor management of handling, disposal and storage of general and hazardous waste may lead to the pollution of the surrounding environment.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will not be lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>All general waste must be disposed of in bins/waste skips labelled "general waste".</li> <li>Sufficient waste bins must be provided throughout the construction site for collecting waste.</li> <li>All general waste collected on site must be disposed of at a licensed general waste disposal site.</li> <li>All hazardous waste generated on site must be placed in a temporary impermeable bunded containment area which must be disposed of at a hazardous landfill site or be collected by the appropriate service provider.</li> <li>Proof of receipt of hazardous waste by a licenced service provider must be maintained on the site.</li> <li>Adequate sanitary facilities must be provided for construction workers and they must be properly secured to the ground.</li> <li>Maintenance of the chemical toilets should be done on a regular basis to prevent any leakages.</li> </ul>	<b>LOW -</b>
		During the construction phase, the mixing of cement on site could result in ground water contamination from compounds in the cement. In addition, a large number of cement mixing stations on site could increase the presence of impermeable areas which in turn could increase rates of run-off and thereby increase the risk of localized flooding, soil erosion, silting, gully formation, etc.	Negative	Direct, Indirect	Severe	Study area	Medium-term	Possible	Reversible	Resource will not be lost	Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>Concrete and cement must take place on an impermeable surface, and dried waste concrete and cement must be disposed of with building rubble.</li> <li>No concrete mixing must take place within 32 m of any watercourse.</li> </ul>	<b>LOW -</b>
<b>SOCIO-ECONOMIC</b>														
Job creation	All Alternatives	During the construction phase, there will be some temporary job opportunities associated with building of the proposed 132 KV Overhead Line.	Positive	Direct	Slight	Localised	Short-term	Definite	N/A	Resource will not be lost	Easily Achievable	<b>LOW +</b>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<b>LOW +</b>
Health and safety	All Alternatives	During the construction phase, failure to comply with health and safety policies and protocols may result in the harm of labourers, staff, surrounding landowners and the public.	Negative	Direct, Indirect	Moderate	Study area	Short-term	Possible	Irreversible	Resource will be lost	Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>A health and safety plan in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) must be adhered to and enforced by a HSE officer to ensure workers safety.</li> </ul>	<b>LOW -</b>

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
Air quality and dust control	All Alternatives	During the construction phase, dust generated by construction vehicles and construction activities could result in significant dust during windy conditions.	Negative	Direct	Moderate	Study area	Short-term	Definite	Reversible	Resource will not be lost	Achievable	MODERATE -	<ul style="list-style-type: none"> <li>During windy periods un-surfaced and un-vegetated areas must be dampened down.</li> <li>Vegetation must be retained where possible as this will reduce dust travel.</li> <li>Any complaints or claims emanating from dust issues must be attended to immediately and noted in the complaints register.</li> <li>Vehicles and construction plant must be serviced regularly so as to reduce excessive vehicle emissions.</li> </ul>	LOW -
	All Alternatives	During the construction phase poor maintenance and servicing of construction plant and vehicles may result in an increase in vehicle emissions in the areas.	Negative	Indirect	Moderate	Study area	Short-term	Probable	Reversible	Resource will not be lost	Achievable	MODERATE -	<ul style="list-style-type: none"> <li>Vehicles and construction plant must be serviced regularly so as to reduce excessive vehicle emissions.</li> </ul>	LOW -
On-site fire risk	All Alternatives	During the construction phase inadequate attention to fire safety awareness and fire safety equipment could result in uncontrolled fires, posing a threat to animals, vegetation and the surrounding landowners.	Negative	Direct	Moderate	Study area	Long-term	Possible	Irreversible	Resource will be lost	Easily Achievable	MODERATE -	<p>In order to reduce the risk of fires:</p> <ul style="list-style-type: none"> <li>All flammable substances must be stored in dry areas which do not pose an ignition risk to the said substances.</li> <li>Smoking must not be permitted near flammable substances.</li> <li>All cooking must be done in demarcated areas that are safe in terms of runaway or uncontrolled fires.</li> <li>No open fires must be allowed on site.</li> <li>Fire extinguishers must be available onsite.</li> </ul>	LOW -
<b>REHABILITATION AND MAINTENANCE</b>														
Inadequate rehabilitation and maintenance	All Alternatives	During the construction phase inadequate provision and implementation of rehabilitation measures may lead to the degradation of the surrounding environment.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will be partly lost	Easily Achievable	MODERATE -	The rehabilitation plan must be implemented during and after the construction has been completed.	LOW -
<b>TERRESTRIAL BIODIVERSITY AND ECOLOGY</b>														
Loss Schmidtsdrift Thornveld	Encroached	Preferred Alternative	Negative	Direct	Slight	Localised	Permanent	Definite	Reversible	Resource will be partially lost	Achievable	LOW -	<p>Mitigation Measures:</p> <ul style="list-style-type: none"> <li>An Erosion Management Plan / Method Statement should be compiled and implemented during the Construction Phase.</li> <li>Vegetation clearance must be kept to a minimum and retained where possible to avoid soil erosion.</li> </ul>	LOW -
	Open, semi-natural													



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	Disturbed		of this vegetation type, which is listed as Least Threatened.											<ul style="list-style-type: none"> <li>Disturbed areas impacted during construction which do not form part of the Ganspan Pering 132 kV OHL must be rehabilitated as soon as possible.</li> <li>The site should be monitored regularly for signs of erosion. Remedial action must be taken at the first signs of erosion.</li> </ul>	
	All categories		Portions of this vegetation type have already been lost due to agricultural and urban development's adjacent to the site as well as grazing by livestock, frequent access by community members and invasion by alien plant species. The additional loss of vegetation as a consequence of the proposed Ganspan Pering 132 kV OHL will therefore have a low cumulative impact.	Negative	Cumulative	Slight	Study area	Long term	Definite	It is difficult to implement mitigation measures specific to the cumulative impacts as the applicant only has jurisdiction over their development and not over other developments or activities in the area. However, it is imperative that the applicant implement the mitigation measures listed above for the direct impacts.			LOW -		N/A-
	No-go alternative		If the project does not go ahead, the current impacts associated with grazing and the infestation of invasive alien species will continue. However, these are relatively minor within the proposed development footprint and as such, the No-go Alternative is classified as low negative.	Negative	Direct	Slight	Localised	Long-Term	Probable	N/A	N/A	N/A	LOW -		N/A
Loss of Plant Species of Conservation Concern	Preferred Alternative		Although no plant SCC were observed during the site survey (see Appendix 1), the proposed Ganspan Pering 132 kV OHL could result in the loss of potential unidentified SCC likely to occur within the project area (see Section 3.4.3). The SCC likely to occur within the project area are widely distributed and classified as Least Concern. As such, this significant of this impact is classified as moderate.	Negative	Direct	Moderate	Study Area	Permanent	May occur	Reversible	Resource will be partly lost	Achievable	MODERATE -	<ul style="list-style-type: none"> <li>An Erosion Management Plan / Method Statement should be compiled and implemented during the Construction Phase.</li> <li>Vegetation clearance must be kept to a minimum and retained where possible to avoid soil erosion.</li> <li>Disturbed areas impacted during construction which do not form part of the Ganspan Pering 132 kV OHL must be rehabilitated as soon as possible.</li> <li>The site should be monitored regularly for signs of erosion. Remedial action must be taken at the first signs of erosion.</li> </ul>	MODERATE -
			SCC have likely already been lost as a result of the existing developments and activities in the area. As such, the further loss of SCC associated with the proposed Ganspan Pering 132 kV OHL will likely contribute to the cumulative loss of SCC within the region. However, if the mitigation measures as described in this report are implemented and adhered to, this impact can be reduced to moderate negative.	Negative	Cumulative	Moderate	Study area	Long term	May occur	It is difficult to implement mitigation measures specific to the cumulative impacts as the applicant only has jurisdiction over their development and not over other developments or activities in the area. However, it is imperative that the applicant implement the mitigation measures listed above for the direct impacts.			MODERATE -		MODERATE -

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	No-go alternative	The No-go alternative will not require the clearance of vegetation and will therefore not result in the loss of plant SCC. The no-go alternative is therefore negligible	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NEGLIGIBLE		N/A
Impact on faunal species of conservation concern	Preferred Alternative	The clearance of vegetation and removal of potential faunal habitat could have a severe negative impact on SCC if they inhabit the area.	Negative	Direct	Slight	Study Area	Permanent	May occur	Reversible	Resource could be partly lost	Achievable	LOW -	Species-specific mitigations have therefore been proposed. <ul style="list-style-type: none"> <li>Brown Hyena (<i>Parahyaena brunnea</i>) (NT) may occur in the broader project area on the outskirts of the urban area.</li> <li>Black Footed Cat (<i>Felis nigripes</i>), Leopard (<i>Panthera pardus</i>), Temminck's Pangolin (<i>Smutsia temminckii</i>) (all classified as VU) may occur onsite.</li> </ul>	LOW -
		The proposed Ganspan Pering 132 kV OHL is not anticipated to significantly exacerbate the impacts on faunal SCC caused by existing developments and activities (including dumping, frequent access, urban development, et cetera).	Negative	Cumulative	Severe	Study area	Permanent	May occur	It is difficult to implement mitigation measures specific to the cumulative impacts as the applicant only has jurisdiction over their development and not over other developments or activities in the area. However, it is imperative that the applicant implement the mitigation measures listed above for the direct impacts.				LOW -	<ul style="list-style-type: none"> <li>Southern African Hedgehog (<i>Atelerix frontalis</i>), Dent's Horseshoe Bat (<i>Rhinolophus denti</i>), and Serval (<i>Leptailurus serval</i>), (all classified as NT) may utilise the site as breeding and or feeding ground.</li> <li>However, it is likely that most mammal SCC will move away from the areas during vegetation clearance.</li> </ul>
	No-go alternative	Under the no-go alternative there will be no clearance of habitat within the project area therefore there will be no loss or impact to faunal SCC.	Negative	Direct	Slight	Study area	Medium term	Probable	N/A	N/A	N/A	LOW -	No mitigation measures are proposed for the no-go alternative.	N/A

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
Reduced Faunal Habitat	Preferred Alternative	The project will result in the permanent habitat loss within the footprints of the proposed Ganspan Pering 132 kV OHL.	Negative	Direct	Slight	Study area	Permanent	Definite	Reversible	Resource will be partly lost	Achievable	LOW -	Mitigation Measures: <ul style="list-style-type: none"> <li>Search and clear the area prior to vegetation clearance.</li> <li>Avoid any dens (potentially used by <i>Felis nigripes</i>) – suggest a minimum of 300m buffer around dens and must be demarcated and declared a No-Go area.</li> <li>Any faunal species that may die as a result of construction must be recorded (photographed, GPS coordinates) and if somewhat intact, preserved and donated to SANBI.</li> <li>Any faunal species observed onsite must be recorded (photographed, GPS coordinates) and loaded onto iNaturalist.</li> <li>Staff and contractors are not permitted to capture, collect or eat any faunal species onsite.</li> </ul>	LOW -
		Portions of faunal habitat have already been lost due to illegal dumping, frequent access by community members, urban development, and other farming activities adjacent to the site	Negative	Cumulative	Slight	Study area	Long term	Definite	It is difficult to implement mitigation measures specific to the cumulative impacts as the applicant only has jurisdiction over their development and not over other developments or activities in the area. However, it is imperative that the applicant implement the mitigation measures listed above for the direct impacts.			LOW -		LOW -
	No-go alternative	Habitat fragmentation is occurring at a very slow rate due to the infestation of alien species, grazing by livestock, urban expansion, and frequent access by community members	Negative	Direct	Slight	Localised	Short term	Probable	N/A	N/A	N/A	LOW -	No mitigation measures are proposed for the no-go alternative.	N/A

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Disruption of Faunal Species and Potential Reduction in Abundance and Mortality of Faunal Species.	Preferred Alternative	The clearance of vegetation for the establishment of the proposed Ganspan Pering 132 kV OHL will cause the majority of highly mobile faunal species to move away from the site during the construction phase. Those that remain in the project footprint could come into contact with staff and vehicles/machinery.	Negative	Direct	Slight	Study Area	Permanent	May occur	Reversible	Resource will be partly lost	Achievable	LOW -	Mitigation Measures: <ul style="list-style-type: none"> <li>Search and clear the area prior to vegetation clearance.</li> <li>Avoid any dens (potentially used by <i>Felis nigripes</i>) – suggest a minimum of 300m buffer around dens and must be demarcated and declared a No-Go area.</li> <li>Any faunal species that may die as a result of construction must be recorded (photographed, GPS coordinates) and if somewhat intact, preserved and donated to SANBI.</li> <li>Any faunal species observed onsite must be recorded (photographed, GPS coordinates) and loaded onto iNaturalist.</li> <li>Staff and contractors are not permitted to capture, collect or eat any faunal species onsite.</li> </ul>	LOW -
		Existing activities within the project area, such as urban expansion, illegal dumping, and frequent access by community members and domestic animals (dogs and cats) have already caused a disturbance to fauna within the project area. As such, the proposed Overhead Line will only slightly contribute to the disturbance to faunal species within the project area.	Negative	Cumulative	Slight	Study area	Long term	May occur	It is difficult to implement mitigation measures specific to the cumulative impacts as the applicant only has jurisdiction over their development and not over other developments or activities in the area. However, it is imperative that the applicant implement the mitigation measures listed above for the direct impacts.	LOW -	LOW -			
	No-go alternative	Existing activities within the project area, such as urban expansion, illegal dumping, and frequent access by community members and domestic animals (dogs and cats) have already caused a disturbance to fauna within the project area	Negative	Direct	Moderate	Localised	Short term	Probable	N/A	N/A	N/A	LOW -	No mitigation measures are proposed for the no-go alternative.	N/A
Disruption of Ecosystem Function and Process	Preferred Alternative	Fragmentation is one of the most important impacts on vegetation as it creates breaks in previously continuous vegetation, causing a reduction in the gene pool and a decrease in species richness and diversity. It also impacts on fauna as it separates habitats and necessitates fauna having to move across exposed areas like roads to get to another section of their habitat or territory. This impact occurs when more and more areas are cleared, resulting in the isolation of functional ecosystems, which results in reduced biodiversity and reduced movement due to the absence of ecological corridors.	Negative	Direct	Slight	Study Area	Permanent	May occur	Reversible	Resource will be partly lost	Achievable	LOW -	Mitigation Measures: <ul style="list-style-type: none"> <li>Rehabilitate areas which do not form part of the Ganspan Pering 132 kV OHL.</li> <li>Limit vegetation clearance to that which is strictly necessary.</li> <li>Use existing access roads and servitudes, where possible.</li> </ul>	LOW -

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		Disruption of ecosystem function and process due to habitat fragmentation has already occurred within the broader area due to roads, existing powerlines, frequent access by community members, illegal dumping, urban expansion, farming, amongst other land uses	Negative	Cumulative	Slight	Study area	Long term	May occur	N/A	N/A	N/A	LOW -		LOW -
	No-go alternative	Under the no-go alternative, habitat fragmentation will occur as a result of illegal dumping, frequent access by community members, urban expansion, grazing and infestation of invasive alien plant species. This will continue to occur if left unchecked however, at a very slow rate	Negative	Direct	Moderate	Localised	Short term	Probable	It is difficult to implement mitigation measures specific to the cumulative impacts as the applicant only has jurisdiction over their development and not over other developments or activities in the area. However, it is imperative that the applicant implement the mitigation measures listed above for the direct impacts.			LOW -		N/A
Establishment of Alien Plant Species	Preferred Alternative	The removal of existing natural vegetation creates 'open' habitats which favours the establishment of undesirable vegetation in areas that are typically very difficult to eradicate and could pose a threat to surrounding ecosystems.	Negative	Direct	Moderate	Study area	Permanent	Probable	Reversible	Resource will be partly lost	Achievable	MODERATE -	Mitigation Measures: <ul style="list-style-type: none"> <li>The site must be checked regularly for the presence of alien invasive species.</li> <li>An Alien Invasive Management Plan/ Method Statement must be compiled, implemented, and adhered to.</li> </ul>	LOW -
		Scattered alien invasive species have already established in the surrounding area. Therefore, should the vegetation clearance for the proposed Overhead Line lead to the further establishment of alien invasive species in the project area, the invasion by alien species could be exacerbated.	Negative	Cumulative	Moderate	Study area	Long-term	Probable	It is difficult to implement mitigation measures specific to the cumulative impacts as the applicant only has jurisdiction over their development and not over other developments or activities in the area. However, it is imperative that the applicant implement the mitigation measures listed above for the direct impacts.			MODERATE -		MODERATE -
	No-go alternative	There is already evidence of the establishment of numerous alien species within the site. Under the no-go alternative these species are likely to continue multiplying if left unchecked.	Negative	Direct	Moderate	Localised	Short term	Definite	N/A	N/A	N/A	LOW -		No mitigation measures are proposed for the no-go alternative.

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
<b>VISUAL IMPACT</b>														
Visual impact of construction activity	All Alternatives	<p>There are various activities which will take place during the construction phase which may have impacts on sensitive visual receptors:</p> <ul style="list-style-type: none"> <li>• Small areas of vegetation will need to be cleared for the pylon foundations.</li> <li>• Construction of the OHL will potentially draw attention if it is exposed above the skyline.</li> <li>• There will be a slight increase in vehicular movement of trucks delivering supplies and construction material.</li> <li>• Soil stockpiling and vegetation debris.</li> </ul>	Negative	Direct	Slight	Localised	Short term	Probable	N/A	N/A	Achievable	<b>LOW -</b>	<p>The following mitigation measures are proposed:</p> <ul style="list-style-type: none"> <li>• The construction contractor should clearly demarcate construction areas so as to minimise site disturbance.</li> <li>• Phased, rather than indiscriminate clearing of the site to be undertaken.</li> <li>• Vegetation clearing should be limited to species/specimens presenting a fire risk or clearance danger.</li> <li>• The site should be kept neat and tidy. Littering should be fined, and the ECO should organise rubbish clean-ups on a regular basis.</li> <li>• Implement mitigation measures as recommended in the EMPr.</li> </ul>	<b>LOW -</b>
<b>AVIFAUNAL IMPACTS</b>														
Habitat destruction during construction	Preferred Alternative	During construction vegetation is altered or moved for the project footprint. This destroys avifauna habitat, makes it less useful to birds, or less attractive to sensitive species.	Negative	Direct	Slight	Localised	Long term	Definite	Very difficult	Partly lost	Achievable	<b>LOW -</b>	<p>No unnecessary alteration or removal of any remaining natural vegetation should take place during construction.</p> <p>All construction activities should be strictly managed according to generally accepted environmental best practice standards, to avoid any unnecessary impact on the receiving environment.</p> <p>All temporary disturbed areas should be rehabilitated according to the site's rehabilitation plan, following construction.</p>	<b>LOW -</b>
Disturbance of birds during construction & operations	Preferred Alternative	Birds are disturbed by construction or operations activities & their survival or reproduction is compromised. Most applicable with breeding sensitive bird species.	Negative	Direct	Slight	Study area	Short term	Possible	Moderate	Partly lost	Achievable	<b>LOW -</b>	All construction activities should be strictly managed according to generally accepted environmental best practice standards, to avoid any unnecessary impact on the receiving environment.	<b>LOW -</b>
Electrocution of birds on power line & in substations	Preferred Alternative	Large birds are electrocuted whilst perched on pylons or in substation, by bridging the critical clearances between phases or phase –earth hardware.	Negative	Direct	Slight	Global	Long term	Possible	Very difficult	Lost	Achievable	<b>LOW -</b>	The pole design must be an Eskom approved bird friendly design.	<b>LOW -</b>

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
Collision of birds on overhead power line	Preferred Alternative	Birds in flight collide with overhead cables (conductors or earth wires) whilst in mid-flight. This occurs when they don't see the cables until too late to take evasive action.	Negative	Direct	Slight	Global	Long term	Possible	Very difficult	Lost	Achievable	<b>LOW -</b>	A pre-construction avifaunal walk down should be conducted to confirm final layout and identify any new sensitivities. This walk down will also identify any high-risk sections of power line for bird collision.  The earth wires on high risk sections should be fitted with an approved anti bird collision line marking device to make cables more visible to birds in flight and reduce the likelihood of collisions.	<b>LOW -</b>
<b>HERITAGE AND CULTURAL RESOURCES</b>														
Loss of archaeological feature	All Alternatives	The study did not identify any archaeological receptors which will be directly impacted by the proposed project.	Negative	Direct	Slight	Study area	Short Term	Definite	Irreversible	Resource will not be lost	Achievable	<b>LOW -</b>	No Mitigation Required	<b>LOW -</b>
Loss of historically significant building and structures	All Alternatives	The study identified no buildings or structures of historical or heritage significance. For the rest of the project area, the general landscape holds varied significance in terms of the built environment as the area comprises historical farming remnants and relatively newly established industrial zones, settlements and townlands. However, no impact on built environment sites is anticipated.	Negative	Direct	Slight	Study area	Short Term	Definite	Irreversible	Resource will not be lost	Achievable	<b>LOW -</b>	No Mitigation Required	<b>LOW -</b>
Alteration of cultural landscape	All Alternatives	Generally, the proposed project area and its surrounds are characterised by open fields and farmlands. Further away from the project area, the landscape is typical of the rural north Northern Cape with undulating hills with flatter plains in-between. This landscape stretches over many kilometres and the proposed project is unlikely to result in a significant impact on the landscape.	Negative	Direct	Slight	Study area	Short Term	Definite	Irreversible	Resource will not be lost	Achievable	<b>LOW -</b>	No Mitigation Required	<b>LOW -</b>

Disturbance to graves/human burial sites	All Alternatives	<p>No graves of human burial places were noted during the site investigation the project footprint. In the rural areas of the Northern Cape Province graves and cemeteries sometimes occur within settlements or around homesteads but they are also randomly scattered around archaeological and historical settlements. The probability of additional and informal human burials encountered during development should thus not be excluded. In addition, human remains and burials are commonly found close to archaeological sites; they may be found in "lost" graveyards, or occur sporadically anywhere as a result of prehistoric activity, victims of conflict or crime. It is often difficult to detect the presence of archaeological human remains on the landscape as these burials, in most cases, are not marked at the surface.</p> <p>Human remains are usually observed when they are exposed through erosion. In some instances packed stones or rocks may indicate the presence of informal pre-colonial burials. If any human bones are found during the course of construction work then they should be reported to an archaeologist and work in the immediate vicinity should cease until the appropriate actions have been carried out by the archaeologist. Where human remains are part of a burial they would need to be exhumed under a permit from SAHRA (for pre-colonial burials as well as burials later than about AD 1500). Should any unmarked human burials/remains be found during the course of construction, work in the immediate vicinity should cease and the find must immediately be reported to the archaeologist, or the South African Heritage Resources Agency (SAHRA). Under no circumstances may burials be disturbed or removed until such time as necessary statutory procedures required for grave relocation have been met.</p>	Negative	Direct	Slight	Study area	Short Term	Definite	Irreversible	Resource will not be lost	Achievable	LOW -	<p>Human remains are usually observed when they are exposed through erosion. In some instances packed stones or rocks may indicate the presence of informal pre-colonial burials. If any human bones are found during the course of construction work then they should be reported to an archaeologist and work in the immediate vicinity should cease until the appropriate actions have been carried out by the archaeologist. Where human remains are part of a burial they would need to be exhumed under a permit from SAHRA (for pre-colonial burials as well as burials later than about AD 1500). Should any unmarked human burials/remains be found during the course of construction, work in the immediate vicinity should cease and the find must immediately be reported to the archaeologist, or the South African Heritage Resources Agency (SAHRA). Under no circumstances may burials be disturbed or removed until such time as necessary statutory procedures required for grave relocation have been met.</p>	LOW -
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POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
<b>WATERCOURSE AND WETLAND IMPACTS</b>														
Direct ecosystem modification or destruction / loss impacts	All alternatives	During the construction phase, vegetation clearance, construction vehicle traffic and earthworks may result in the temporary disturbance of units W1, W2, W3, W4, W6 and W7.	Negative	Direct	Slight	Localised	Medium-term	Probable	Reversible	Resource will not be lost	Achievable	<b>LOW -</b>	<p>Avoid/prevent impact:</p> <ul style="list-style-type: none"> <li>Powerlines should span the extent of watercourses where possible.</li> <li>Pylons should not be placed within 32 m of watercourses.</li> <li>All construction phase access and haulage roads must avoid the delineated watercourses and buffer zones. As far as practically possible, existing roads and dirt tracks should be used to access the construction sites if such access routes avoid watercourses.</li> </ul>	<b>LOW -</b>
Alteration of hydrological and geo-morphological processes	All alternatives	During the construction phase, the clearance of vegetation and compaction of soil may result in increased run-off and erosion, altering hydrological and geomorphological processes.	Negative	Indirect	Slight	Study area	Medium-term	Probable	Reversible	Resource will not be lost	Achievable	<b>LOW -</b>		<b>LOW -</b>
Ecological connectivity and edge disturbance impacts	All alternatives	During the construction phase, vegetation clearance, construction vehicle traffic and earthworks may reduce ecological connectivity and disturb the watercourse/terrestrial edge.	Negative	Direct, indirect	Slight	Study area	Medium-term	Probable	Reversible	Resource will not be lost	Achievable	<b>LOW -</b>		<p>Minimize/reduce impact:</p> <ul style="list-style-type: none"> <li>Construction activities should be undertaken during the driest part of the year to minimize erosion and downstream sedimentation due to excavation, etc.</li> <li>Appropriate stormwater management must be implemented during construction to control run-off, minimize erosion and trap sediment. Such measures include the installation of sediment fences, earthen / sand bag barriers at regular intervals.</li> <li>Vegetation clearing must be kept a minimum and only to the site footprint.</li> <li>Stockpiles must be monitored for erosion and mobilisation of materials towards watercourses.</li> <li>Stockpiles must not exceed 1.5m in height. Stockpiles must be covered during windy periods.</li> </ul> <p>Remediate/rehabilitate impact:</p> <ul style="list-style-type: none"> <li>Disturbed areas must be monitored for erosion channels and these must be rehabilitated.</li> <li>All trenches/excavations must be backfilled and all disturbed areas backfilled, compacted and revegetated, where applicable.</li> </ul>

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
Water pollution impacts	All alternatives	During the construction phase, accidental spillages of wet concrete and chemical / hazardous substances may result in soil and groundwater contamination, adversely affecting the aquatic ecosystems in the broader area.	Negative	Direct, indirect	Slight	Study area	Long-term	May occur	Reversible	Resource will not be lost	Achievable	<b>LOW -</b>	<p>Avoid/prevent impact:</p> <ul style="list-style-type: none"> <li>No concrete mixing must take place within of any watercourse.</li> <li>No machinery must be parked overnight within 50 m of the rivers/wetlands.</li> <li>All stationary machinery must be equipped with a drip tray to retain any oil leaks.</li> <li>Chemicals used for construction must be stored safely on bunded surfaces in the construction site camp.</li> <li>No ablution facilities must be located within 50 m of any river or wetland system.</li> <li>Chemical toilets must be regularly maintained/ serviced to prevent ground or surface water pollution.</li> <li>Any hazardous substances/waste must be stored in impermeable bunded areas or secondary containers 110% the volume of the contents within it.</li> <li>All general waste and refuse must be removed from site and disposed and windproof temporary storage area before being disposed of at a registered landfill site.</li> </ul> <p>Remediate/rehabilitate impact:</p> <ul style="list-style-type: none"> <li>Emergency plans must be in place in case of spillages onto bare soil or within water courses.</li> </ul>	<b>LOW -</b>

**OPERATIONAL PHASE**

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
<b>ENVIRONMENTAL POLICY</b>														
Legal and policy compliance	All Alternatives	During the operation phase, failure to adhere to all permits, authorisations and regulations may lead to financial penalties and closure of the proposed 132 KV Overhead Line .	Negative	Direct	Severe	National	Long-term	Possible	Reversible	Resource will be partly lost	Achievable	<b>HIGH -</b>	<ul style="list-style-type: none"> <li>The proponent must ensure that operations of the 132 KV Overhead line is compliant with the relevant legislation and policy.</li> <li>These should include (but are not restricted to): NEMA, EA, EMPr and any other permits/authorisations.</li> </ul>	<b>LOW -</b>
<b>BUILT ENVIRONMENT</b>														
Infrastructure	All Alternatives	During the operation phase, the Overhead line will provide electricity in an efficient and sustainable manner, including its generation, transmission and distribution and retail.	Positive	Direct, Indirect	Moderate	Regional	Long-term	Definite	Reversible	Resource will not be lost	Easily Achievable	<b>MODERATE +</b>	<ul style="list-style-type: none"> <li>Regular maintenance and inspections of all infrastructure and services must be undertaken.</li> </ul>	<b>MODERATE +</b>
Stormwater management	All Alternatives	During the operation phase, failure of the stormwater system and or lack of maintenance of the stormwater system may result in the erosion and or pollution of the surrounding environment should the stormwater be contaminated.	Negative	Direct, Indirect	Moderate	Study area	Long-term	Possible	Reversible	Resource will not be lost	Easily Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>Stormwater management measures such as attenuation structures, channels, etc. must be properly maintained and monitored.</li> <li>If the stormwater management measures put in place are deemed insufficient, a qualified engineer must be approached to assist with additional storm water attenuation mechanisms and remediation.</li> </ul>	<b>LOW -</b>
<b>SOCIO-ECONOMIC</b>														
Job creation	All Alternatives	During the construction phase, there will be some temporary job opportunities associated with building of the proposed 132 KV Overhead Line.	Positive	Direct	Slight	Localised	Short-term	Definite	N/A	Resource will not be lost	Easily Achievable	<b>LOW +</b>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<b>LOW +</b>
Health and safety	All Alternatives	During the construction phase, failure to comply with health and safety policies and protocols may result in the harm of labourers, staff, surrounding landowners and the public.	Negative	Direct, Indirect	Moderate	Study area	Short-term	Possible	Irreversible	Resource will be lost	Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>A health and safety plan in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) must be adhered to and enforced by a HSE officer to ensure workers safety.</li> </ul>	<b>LOW -</b>
Air quality and dust control	All Alternatives	During the construction phase, dust generated by construction vehicles and construction activities could result in significant dust during windy conditions.	Negative	Direct	Moderate	Study area	Short-term	Definite	Reversible	Resource will not be lost	Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>During windy periods un-surfaced and un-vegetated areas must be dampened down.</li> <li>Vegetation must be retained where possible as this will reduce dust travel.</li> </ul>	<b>LOW -</b>

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
	All Alternatives	During the construction phase poor maintenance and servicing of construction plant and vehicles may result in an increase in vehicle emissions in the areas.	Negative	Indirect	Moderate	Study area	Short-term	Probable	Reversible	Resource will not be lost	Achievable	<b>MODERATE -</b>	<ul style="list-style-type: none"> <li>Any complaints or claims emanating from dust issues must be attended to immediately and noted in the complaints register.</li> <li>Vehicles and construction plant must be serviced regularly so as to reduce excessive vehicle emissions.</li> </ul>	<b>LOW -</b>
On-site fire risk	All Alternatives	During the construction phase inadequate attention to fire safety awareness and fire safety equipment could result in uncontrolled fires, posing a threat to animals, vegetation and the surrounding landowners.	Negative	Direct	Moderate	Study area	Long-term	Possible	Irreversible	Resource will be lost	Easily Achievable	<b>MODERATE -</b>	<p>In order to reduce the risk of fires:</p> <ul style="list-style-type: none"> <li>All flammable substances must be stored in dry areas which do not pose an ignition risk to the said substances.</li> <li>Smoking must not be permitted near flammable substances.</li> <li>All cooking must be done in demarcated areas that are safe in terms of runaway or uncontrolled fires.</li> <li>No open fires must be allowed on site.</li> <li>Fire extinguishers must be available onsite.</li> </ul>	<b>LOW -</b>
<b>REHABILITATION AND MAINTENANCE</b>														
Inadequate rehabilitation and maintenance	All Alternatives	During the operation phase inadequate rehabilitation of disturbed areas and lack of maintenance of infrastructure may lead to the degradation of the surrounding environment.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will be partly lost	Easily Achievable	<b>MODERATE -</b>	Disturbed areas will be rehabilitated/prepared to allow natural re-vegetation.	<b>LOW -</b>
<b>TERRESTRIAL BIODIVERSITY AND ECOLOGY</b>														
Infestation of Alien Plant Species	Preferred Alternative	If areas which do not form part of the Overhead Line are not rehabilitated, these disturbed areas can become places for alien invasive species to become established and if left unmitigated these species can spread and establish themselves in intact vegetation resulting in the displacement of indigenous species and possible local extinctions of SCC.	Negative	Direct	Moderate	Study Area	Permanent	Probable	Reversible	Resource will be partly lost	Easily achievable	<b>LOW -</b>	<p>Mitigation Measures:</p> <ul style="list-style-type: none"> <li>The site must be checked regularly for the presence of alien invasive species. When alien invasive species are found, immediate action must be taken to remove them.</li> <li>An Alien Invasive Management Plan/ Method Statement must be compiled, implemented and adhered to.</li> </ul>	<b>LOW -</b>

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
		Scattered alien invasive species have already established in the surrounding area. Therefore, should the operation of the proposed Overhead Line lead to the further establishment of alien invasive species in the project area, the invasion by alien species could be exacerbated.	Negative	Cumulative	Moderate	Study area	Long term	Probable	It is difficult to implement mitigation measures specific to the cumulative impacts as the applicant only has jurisdiction over their development and not over other developments or farming activities in the area. However, it is imperative that the applicant implement the mitigation measures listed above.			MODERATE -		MODERATE-
	No-go alternative	There is already a number of alien species which has established within the project area. Under the no-go alternative these species are likely to continue multiplying if left unchecked.	Negative	Direct	Slight	Localised	Short term	Probable	N/A	N/A	N/A	LOW -	<ul style="list-style-type: none"> <li>No mitigation measures are proposed for the no-go alternative.</li> </ul>	N/A
<b>VISUAL IMPACTS</b>														
Impact of 132 kV OHL on visually sensitive receptors	Pampierstad	The mast will be visible from the surrounding areas. Notable features/receptors within the viewshed area include: residents of Pampierstad, residents of Lower Majeakgoro and motorists using the 5115 tertiary road.	Negative	Direct	Moderate	Localised	Long term	Probable	N/A	N/A	Achievable	MODERATE -	<p>Due to the height and visibility of the 132 kV OHL, mitigation measures are limited.</p> <p>The following should be considered:</p> <ul style="list-style-type: none"> <li>Consolidate impacts by aligning the proposed 132 kV OHL line adjacent to an existing power lines.</li> <li>Vegetation clearing/trimming within the servitude should be limited to species/specimens presenting a fire risk or clearance danger.</li> </ul>	MODERATE -
	Majeakgoro		Negative	Direct	Moderate	Localised	Long term	Probable	N/A	N/A	Achievable	MODERATE -		MODERATE -
	5115 tertiary road		Negative	Direct	Slight	Localised	Long term	Probable	N/A	N/A	Achievable	LOW -		LOW -
<b>AVIFAUNAL IMPACT</b>														
Impact: Disturbance of birds	Preferred Alternative	Birds are disturbed by operations activities & their survival or reproduction is compromised. Most applicable with breeding sensitive bird species.	Negative	Direct	Slight	Study Area	Short term	Possible	Moderate	Partly lost	Achievable	LOW -	All construction activities should be strictly managed according to generally accepted environmental best practice standards, to avoid any unnecessary impact on the receiving environment.	LOW -
Impact: Electrocution of birds on power line & in substations	Preferred Alternative	Large birds are electrocuted whilst perched on pylons or in substation, by bridging the critical clearances between phases or phase –earth hardware.	Negative	Direct	Slight	Global	Long term	Possible	Very difficult	Lost	Achievable	LOW -	The pole design must be an Eskom approved bird friendly design.	LOW -

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
Impact: Collision of birds on overhead power line	Preferred Alternative	Birds in flight collide with overhead cables (conductors or earth wires) whilst in mid-flight. This occurs when they don't see the cables until too late to take evasive action.	Negative	Direct	Slight	Global	Long term	Possible	Very difficult	Lost	Achievable	LOW -	<p>A pre-construction avifaunal walk down should be conducted to confirm final layout and identify any new sensitivities. This walk down will also identify any high-risk sections of power line for bird collision</p> <p>The earth wires on high risk sections should be fitted with an approved anti bird collision line marking device to make cables more visible to birds in flight and reduce the likelihood of collisions.</p>	LOW -
<b>WATERCOURSE AND WETLAND IMPACTS</b>														
Alteration of hydrological and geo-morphological processes	All alternatives	During the operational phase, localised altered flow patterns may occur around the powerline pylons. This may indirectly result in increased run-off, erosion and sedimentation.	Negative	Indirect	Slight	Localised	Permanent	May occur	Reversible	Resource will not be lost	Achievable	LOW -	<p>Minimize/reduce impact:</p> <ul style="list-style-type: none"> <li>All operational phase service roads must avoid the delineated watercourses and buffer zones. As far as practically possible, existing roads and dirt tracks should be used as maintenance roads if such access routes avoid watercourses.</li> <li>Stormwater measures must be installed at pylon sites.</li> <li>Stormwater infrastructure must be maintained and monitored for effectiveness with respect to controlling and minimising erosion and sedimentation of watercourses.</li> </ul> <p>Remediate/rehabilitate impact: The site must be monitored for erosion and should be rehabilitated where applicable.</p>	VERY LOW -
Ecological connectivity and edge disturbance impacts	All Alternatives	During the operational phase, inadequate rehabilitation of disturbed areas may lead to the reduction of ecological connectivity and degradation of the surrounding environment.	Negative	Indirect	Slight	Study area	Long-term	May occur	Reversible	Resource will not be lost	Achievable	LOW -		VERY LOW -

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
Water pollution impacts	All Alternatives	During the operational phase, routine maintenance may lead to the introduction of chemical / hazardous substances into the watercourse, soil and/or groundwater, adversely affecting the aquatic ecosystems in the broader area.	Negative	Indirect	Slight	Localised	Long term	May occur	Reversible	Resource may be partially lost	Achievable	<b>LOW -</b>	<p>Avoid/prevent impact:</p> <ul style="list-style-type: none"> <li>No machinery must be parked overnight within 50m of the rivers/wetlands.</li> <li>All stationary machinery must be equipped with a drip tray to retain any oil leaks.</li> <li>Any hazardous substances/waste must be stored in impermeable bunded areas or secondary containers 110% the volume of the contents within it.</li> <li>All general waste and refuse must be removed from site and disposed and windproof temporary storage area before being disposed of at a registered landfill site.</li> </ul> <p>Remediate/rehabilitate impact:</p> <ul style="list-style-type: none"> <li>Emergency plans must be in place in case of spillages onto bare soil or within water courses.</li> </ul>	<b>VERY LOW -</b>
Status-quo maintained	No-go	Should the project not proceed then the current land use will remain the same. The site is highly degraded and current impacts are likely to persist.	Negative	Indirect	Slight	Study area	Long term	Definite	Reversible	Resource may be partially lost	Difficult	<b>LOW -</b>	No mitigation measures are proposed for the no-go alternative.	<b>LOW -</b>

**DECOMMISSIONING PHASE**

POTENTIAL ISSUE	ALTERNATIVES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE	EXTENT	DURATION	PROBABILITY	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE WITH MITIGATION
<b>VISUAL IMPACTS</b>														
Visual impact of decommissioning activity	All Alternatives	132 kV OHLs are typically designed for a 20-30 year lifecycle after which the structure may either be refurbished or decommissioned. If it is decommissioned, the impacts during the decommissioning phase will be very similar to those identified in the construction phase.	Negative	Direct	Slight	Localised	Short term	Probable	N/A	N/A	Achievable	<b>LOW -</b>	The mitigation measures applicable to the construction phase will be applicable during the decommissioning phase as well.	<b>LOW -</b>