

## 1 NEED AND DESIRABILITY

This section provides a description of the rationale and motivation for the proposed development. It outlines key aspects of the 'need and desirability' of the proposal, as required by the EIA Regulations.

The consideration of 'need and desirability' of a proposal is a key part of environmental impact assessment which relates to the context, broader societal needs, and the public interest. Need and desirability, although not defined in NEMA, are generally considered to relate to

- a. the economic and/or societal benefit likely to be conferred by a proposed development, and
- b. the policy and spatial planning context in which the proposed activity takes place.

Put another way, the concept of need and desirability relate to whether an activity is being proposed at the right time and in the right place.

The table below is based on the Guidelines for Need and Desirability and sets out the key considerations motivating the need and desirability of the project proposal. This section should be read with Section 2.1 of the Basic Assessment Report, which sets out in more detail the legislative, policy, and planning contexts in which the project is proposed.

**Table 1-1: Need and desirability guidelines as applied to the project proposal**

GUIDELINE QUESTION	RESPONSE
<p>How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?</p>	<p>A Screening Assessment using the DFFE Screening Tool was generated in which it identified the potential aspects that may impacted upon by the proposed project. According to the DFFE Screening Tool, the following specialist studies were identified:</p> <ul style="list-style-type: none"> <li>• Agricultural Impact Assessment</li> <li>• Archaeological and Cultural Heritage Impact Assessment</li> <li>• Palaeontological Impact Assessment</li> <li>• Terrestrial Biodiversity Impact Assessment</li> <li>• Aquatic Biodiversity Impact Assessment</li> <li>• Noise Impact Assessment</li> <li>• Landscape/Visual Impact Assessment</li> <li>• Traffic Impact Assessment</li> <li>• Geotechnical Assessment</li> </ul> <p>In terms of section 24(5)(h) of the NEMA, 1998 (Act No 107 of 1998) and regulation 16(1)(b)(v) of the EIA regulations, 2014, as amended, the required DFFE Screening Report is provided as part of Appendix I.</p> <p>It is of the EAP’s opinion that only the studies highlighted in green will be applicable to this project and, therefore, the respective specialists will conduct their assessments which will be included in the BAR. These studies will identify all the potential impacts on the respective environmental aspects and propose mitigation measures to reduce their risks.</p>
<p>How were the following ecological integrity considerations taken into account?</p> <ul style="list-style-type: none"> <li>○ Threatened Ecosystems,</li> </ul>	<ul style="list-style-type: none"> <li>• The SANBI Limpopo Conservation Plan map identifies the locality of the bridge being in a CBA2, Culvert C010 to be in a ESA1 and Culvert C110 to be in a CBA2. However, as determined from the site inspection, this CBA2 area is completely lost and not characteristic of a CBA2 area. Based on this, it is not anticipated that the proposed project will not have any impact on terrestrial biodiversity.</li> </ul>

GUIDELINE QUESTION	RESPONSE
<ul style="list-style-type: none"> <li>○ Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure,</li> <li>○ Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs"),</li> <li>○ Conservation targets,</li> <li>○ Environmental Management Framework,</li> <li>○ Spatial Development Framework, and</li> </ul>	<ul style="list-style-type: none"> <li>● According to the SANBI-NFEPA database, an NFEPA wetland and river is present. The river crosses the bridge, and a wetland was identified to be approximately 286m away from the bridge.</li> <li>● An Aquatic Assessment has been conducted to assess the proposed activity for the improvement of this National Road, bridge and both major culverts accordingly and to identify any negative impacts the proposed activity might have.</li> <li>● The EMF of Limpopo identifies Marble Hall and Groblersdal as Zone C Groblersdal/Marble Hall Irrigated Agriculture Area- this zone is located in the southwest extending from Groblersdal to Marble Hall.. In terms of the Sekhukhune District Plan and the EMF included therein, the site traverses a Zone C area. In the EMF it is noted that Zone C areas are statutory conservation areas, agricultural area or CBA areas characterised as critical, irreplaceable and restorable biodiversity sites, public conservation areas, or private conservation areas. The EAP is of the opinion that the approval of this application will not compromise the integrity of the environmental management priorities for the area.</li> <li>● According to the Sekhukhune Municipal Spatial Development Framework ("MSDF"), the proposed project is located within an incremental growth and consolidation area and not within a protected area. The proposed project is not in conflict with the spatial strategies and related policies. <ul style="list-style-type: none"> <li>○ The proposed development aligns with the three key objectives of the Limpopo Provincial SDF:</li> <li>○ Objective: Sustainable use of provincial assets</li> <li>○ The industrial development exists and only access relocation is proposed. The principles of the PSDF need not be reiterated for development rights already approved. In terms of policy statement relating to biodiversity resources and water resources, the following is submitted:</li> <li>○ POLICY R1: PROTECT BIODIVERSITY AND ECOSYSTEM SERVICES: The proposed bridge access spans a water course for which the necessary authorisations in terms of the National Water Act (Act 36 of 1998) and the National Environmental Management Act (Act 107 of 1998), are being sought.</li> </ul> </li> </ul>

GUIDELINE QUESTION	RESPONSE
	<p>The EAP is of the opinion that the approval of this application is not in conflict with the abovementioned SDFs.</p>
<p>Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.).</p>	<ul style="list-style-type: none"> <li>• The potential impacts associated with proposed development is not expected to extend beyond the site.</li> <li>• There are no RAMSAR sites present within the development area. The proposed development is not expected to have an impact on Climate Change.</li> </ul>
<p>How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p>	<ul style="list-style-type: none"> <li>• The proposed development will not impact on vegetation as the site is transformed within the existing road. The two major culverts and bridge design was guided by the presence of the stream and the 1:50 and 1:100-year floodlines present on the site.</li> <li>• An Aquatic Assessment has been undertaken which identified the impact of the bridge and these major culverts on the affected watercourses. The anticipated impacts on the water courses and the mitigation measures are provided within the BAR.</li> </ul>
<p>How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p>	<ul style="list-style-type: none"> <li>• The mitigation hierarchical approach was followed to address and manage all potential impacts and risks. Pollution and degradation of the biophysical environment will be avoided as far as possible. However, where impacts could not be avoided measures to reduce negative impacts to an acceptable level have been recommended. Management measures have will be included in the BAR.</li> <li>• Refer to BAR for a detailed discussion on the recommended mitigation measures.</li> </ul>
<p>What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether; what measures were explored to minimise, reuse and/or recycle the waste? What measures</p>	<ul style="list-style-type: none"> <li>• The proposed development will generate waste during the construction phase. An integrated waste management system has been adopted, which includes waste minimisation, waste recycling and the proper storage and disposal of waste, which does not impact of the health of the environment and human health.</li> </ul>

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<p>have been explored to safely treat and/or dispose of unavoidable waste?</p>	<ul style="list-style-type: none"> <li>The EMPr and the BAR outlines and requires the implementation of the waste management hierarchy. In applying the mitigation hierarchy, waste avoidance, minimisation, and recycling are required to reduce waste as well as waste to landfill.</li> </ul>
<p>How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p>	<ul style="list-style-type: none"> <li>The proposed development of the improvement of N11 will not impact any cultural heritage or landscapes. The site is already disturbed and transformed.</li> <li>A Heritage study was conducted, and it was noted that no further action is required in terms of Section 38 of the National Heritage Resources Act. It is, however, noted that: <ul style="list-style-type: none"> <li>“should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately, and Heritage Western Cape must be notified without delay”.</li> </ul> </li> </ul>
<p>How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p>	<ul style="list-style-type: none"> <li>The proposed N11 road improvement project will not impact on non-renewable natural resources, as during the construction phase no energy resources are required from formal energy supplies (i.e., electricity). Energy will be for equipment on site will be sourced from generators.</li> </ul>
<ul style="list-style-type: none"> <li>How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of</li> </ul>	<ul style="list-style-type: none"> <li>The proposed development is not expected to impact on any renewable natural resources.</li> <li>The environmental assessment process facilitates identifying measures to avoid, minimise and manage impacts as required by the 2014 NEMA: EIA Regulations, as amended. Measures to avoid, mitigate and manage impacts have been included in the EMP.</li> </ul>

GUIDELINE QUESTION	RESPONSE
<p>the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts?</p> <ul style="list-style-type: none"> <li>○ Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e. dematerialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life)</li> <li>○ Does the proposed use of natural resources constitute the best use</li> </ul>	<ul style="list-style-type: none"> <li>● The proposed development is not expected to increase dependency on resources. The proposed improvement of N11 road is also considered as an activity which will significantly contribute to economic growth. This is a national road where the improvement will increase the traffic and provide a safer road for vehicles.</li> <li>● Pollution and degradation of the environment will be avoided, or, where they cannot be altogether avoided, will be minimised and remedied;</li> <li>● Waste will be avoided, or where it cannot be altogether avoided, it will be minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;</li> <li>● The use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;</li> <li>● The negative impacts on the environment and on people’s environmental rights will be anticipated and prevented, and where they cannot be altogether prevented, will be minimised and remedied.</li> </ul>

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<p>thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources of the proposed development alternative?)</p> <ul style="list-style-type: none"> <li>○ Do the proposed location, type and scale of development promote a reduced dependency on resources?</li> </ul>	
<p>How were a risk-averse and cautious approach applied in terms of ecological impacts?:</p> <ul style="list-style-type: none"> <li>● What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?</li> <li>● What is the level of risk associated with the limits of current knowledge?</li> <li>● ○ Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?</li> </ul>	<ul style="list-style-type: none"> <li>● The precautionary approach has been adopted for this assessment. A detailed assessment of all potential impacts and risks are included in BAR. The assumption is made that the information on which this report is based (project information, engineering reports and specialist input) is correct, factual, and truthful, and that the mitigation measures will be implemented and adhered to.</li> </ul>

GUIDELINE QUESTION	RESPONSE
<p>How will the ecological impacts resulting from this development impact on people's environmental right in terms of the following:</p> <ul style="list-style-type: none"> <li>○ Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?</li> <li>○ Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?</li> </ul>	<p>The proposed project's intentions are making the road safer and wide enough to accommodate the traffic.</p> <ul style="list-style-type: none"> <li>• The proposed development is not expected to have a negative impact on people's environmental right. For example, the proposed development does not intend on negatively affecting the stream or result in air or water pollution during the construction or operational phase. Nuisance impacts (noise, dust, odour), and other impacts identified during the construction phase are temporary and thus no lasting impacts on the well-being of people, nor on the environment are anticipated. Impacts identified have been assessed in a BAR and where impacts could not be avoided, mitigation measures have been identified to minimise, manage, remedy negative impacts.</li> <li>• Measures to avoid, mitigate and manage negative impacts and promote positive impacts will be included in the EMPr. One of the principles of the EMPr is that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised, and remedied.</li> <li>• The EMPr encourages and promotes community wellbeing and empowerment through environmental education of workers during construction phase.</li> </ul>
<p>Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)?</p>	<ul style="list-style-type: none"> <li>• Thriving ecosystems offer ecosystem services which are of benefit to the recipient community and to their livelihoods. There is thus an importance in conserving ecosystems to enable and facilitate their ecological integrity.</li> <li>• During construction phase accidental injuries may occurs, this should be prevented by putting all mitigation measure in place. Mitigation measures are described in the EMPr to minimise this impact.</li> <li>• If any cultural or heritage resources are identified during development, a chance find procedure, as described by the heritage specialist, will be implemented to mitigate any negative impacts.</li> </ul>



GUIDELINE QUESTION	RESPONSE
Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives / targets / considerations of the area?	<ul style="list-style-type: none"> <li>The proposed project will have minimal impacts, during construction the proposed activities does not intend on negatively affecting the stream, polluting the water or create air pollution, although if this occurs, all mitigation measures will be putted in place. Air pollution, water pollution, noise pollution and dust generated during construction will be temporary and thus not a lasting impact.</li> </ul>
Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?	<ul style="list-style-type: none"> <li>Several options were investigated for this proposed improvement of this national road, Option 2B came out to be the preferred option as it will have the minimal impact on the environment.</li> <li>Option 2B is well detailed in the BAR as the preferred option.</li> </ul>
Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and existing and other planned developments in the area?	<ul style="list-style-type: none"> <li>No significant cumulative impacts are anticipated.</li> </ul>
What is the socio-economic context of the area, based on, amongst other considerations, the following considerations?	
The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area.	<ul style="list-style-type: none"> <li>Sekhukhune Municipality IDP has allocated programmes for the upgrade of various infrastructure including National/Regional Roads. The municipality is dedicated to improving the state of these roads therefore the improvement of this road and construction of the new bridge will cater for the future demand.</li> </ul>
Spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.)	<ul style="list-style-type: none"> <li>The N11 connects both economical areas of Sekhukhune Municipality which are Marble Hall and Groblersdal.</li> <li>Sekhukhune Municipality has their own Road Master Plan which states that development of the road and transport network in Sekhukhune is of vital importance given the planned economic trajectory of the District.</li> </ul>

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Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.)	<ul style="list-style-type: none"> <li>The proposed activity for this project will occur within the existing road reserve and no cultural landscapes that exist will be affected. The proposed project will also have the capacity to service future demand for the district.</li> </ul>
Municipal Economic Development Strategy ("LED Strategy").	<ul style="list-style-type: none"> <li>Sekhukhune Municipality has a LED Strategy that seeks to assist the SMME and big businesses within the local community.</li> <li>The proposed development will ensure that more local business benefits via their supply chain department, by ensuring that local businesses are equipped in a manner that will enable them to favourably respond to opportunities presented by the municipal spend (strategic procurement).</li> </ul>
<p>Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?</p> <ul style="list-style-type: none"> <li>Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?</li> </ul>	<ul style="list-style-type: none"> <li>Positive socio-economic impacts are anticipated in the form of construction phase employment opportunities of which some of the opportunities will be allocated to local individuals.</li> <li>The road improvement will also result in a positive socio-economic impact relating to the provision of a more reliable road network for the municipality to accommodate current and future demands.</li> </ul>
How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?	<ul style="list-style-type: none"> <li>In providing job opportunities and associated skills transfer and development during the construction phase, the development will address the social and developmental needs of the community. The development will thus contribute to unlocking development potential in the surrounding areas.</li> <li>Cultural – The HIA has determined that there are no items of cultural significance that will be affected by this development.</li> <li>Social – Local labour will be employed during the construction phase of this development.</li> </ul>
Will the development result in equitable (intra- and inter-generational) impact	<ul style="list-style-type: none"> <li>The social impacts are anticipated to be positive in both the short and long term. The road improvement will be a beneficiary for all road users and the local community will also benefit</li> </ul>

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distribution, in the short and long term? Will the impact be socially and economically sustainable in the short- and long-term?	<p>from employment (temporary employment) and also local business will benefit from opportunities such as supplying equipment for the proposed development during construction phase.</p> <ul style="list-style-type: none"> <li>• This improvement will also assist in the current road traffic and future demand for this road.</li> </ul>
In terms of location, describe how the placement of the proposed development will:	
Result in the creation of residential and employment opportunities in close proximity to or integrated with each other,	<ul style="list-style-type: none"> <li>• Employment opportunities are expected during construction phase, but will be relative to the required needs. No specific or prescribed employment opportunities are calculated at this time. However, it is recommended that labour is acquired from the surrounding communities which will upskill and/or develop skills of the employed.</li> <li>• Opportunities for close proximity communities will be created (such as temporary employment and local business will have opportunities to benefits by supplying equipment that will assist in constructing the proposed activity).</li> </ul>
Reduce the need for transport of people and goods,	<ul style="list-style-type: none"> <li>• The proposed development does not anticipate the need for transport of goods. Transport of people is only required for work purposes.</li> </ul>
Result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport),	<ul style="list-style-type: none"> <li>• Transport infrastructure and movement will be affected during construction as the proposed activity during construction phase will have to reduce the speed limit for safety and this will affect the flow of traffic on the proposed route. The proposed development is not anticipated to contribute or address nonmotorized and pedestrian transport as it is a National Road.</li> </ul>
Compliment other uses in the area,	<ul style="list-style-type: none"> <li>• The proposed activity will be in line within the existing road reserve and this to avoid large area of land acquisition.</li> </ul>
Be in line with the planning for the area,	<ul style="list-style-type: none"> <li>• The proposed road improvement is not in conflict with the policies and plans of the area.</li> </ul>
For urban related development, make use of underutilised land available with the urban edge,	<ul style="list-style-type: none"> <li>• The proposed project will be within the existing road reserve.</li> </ul>
Optimise the use of existing resources and infrastructure,	<ul style="list-style-type: none"> <li>• The proposed road improvement development will require the use of existing infrastructure as it will be in line with the existing road reserve and this project will contribute to municipal services and infrastructure.</li> </ul>

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Opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement),	<ul style="list-style-type: none"> <li>The development is aligned with the IDP and SDF of the municipality. It forms part of the municipality plans for development and complements existing services in the area. This proposed road improvement of N11 will benefit and improved the municipality infrastructures.</li> </ul>
Contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs	<ul style="list-style-type: none"> <li>In terms of the area development, the proposed development is aligned with the municipality planning and the proposed activity will improve the existing National Road.</li> </ul>
Encourage environmentally sustainable land development practices and processes,	<ul style="list-style-type: none"> <li>The proposed development accommodates all environmental features with minimal impact on the environment. The proposed development encourages environmentally sustainable practices as it will use the existing road route as much as possible with minimal land acquisition.</li> <li>In case of any negative impact's mitigation measure should be in place and included in the EMPr.</li> </ul>
Take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.),	<ul style="list-style-type: none"> <li>The proposed road improvement in is line with the existing National Road reserve.</li> </ul>
The investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential),	<ul style="list-style-type: none"> <li>The proposal is that of providing municipal basic service delivery in the form of National Road improvement with increased capacity and also the local communities through the employment of local workers during construction phase, more opportunities for local business for supplying equipment during this phase.</li> </ul>
Impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area, and	<ul style="list-style-type: none"> <li>The preferred option will not have negative impacts on the sense of history, sense of place or heritage. The proposed activity will complement the surrounding development.</li> </ul>

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	<ul style="list-style-type: none"> <li>The proposed development has been confirmed by Heritage Assessment not to impact on any heritage resources for Option 2B. While there is a possibility of excavations on site, encountering heritage resources including unmarked burials, or paleontological material, has a very low likelihood considering the transformed nature of the site.</li> </ul>
<p>In terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?</p>	<ul style="list-style-type: none"> <li>The proposed development is intended to contribute to a more integrated settlement by providing an important municipal amenity and improving the road network by linking two areas of Marble Hall and Groblersdal.</li> </ul>
<p>How were a risk-averse and cautious approach applied in terms of socio-economic impacts?</p>	
<p>What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?</p>	<ul style="list-style-type: none"> <li>Current knowledge is limited insofar as the economic outcomes of the proposed development which are in respect to business and job creation for the local communities, such as supplying equipment's during construction phase and job creation during construction phase.</li> </ul>
<p>What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge?</p>	<ul style="list-style-type: none"> <li>The level of risk is low as the proposed project is not expected to have far-reaching negative impacts on socio-economic conditions should the recommended mitigation and management measures be implemented and adhered to.</li> <li>This means that this limitation in knowledge is acceptable and does not pose a risk.</li> </ul>
<p>Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?</p>	<ul style="list-style-type: none"> <li>The proposed development will aim to improve safety, enhance economic viability, and enhance social and environmental issues.</li> <li>The proposed project will reduce the risk of road safety and improve the road network in this municipality.</li> </ul>
<p>How will the socio-economic impacts resulting from this development impact on people's environmental right in terms following:</p>	
<p>Negative impacts: e.g. health (e.g. HIV AIDS), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?</p>	<ul style="list-style-type: none"> <li>The proposed development is not expected to impact on people's environmental right. Measures will be provided in the EMPr to avoid any impacts on people's environmental right during the construction phase in terms of dust and noise.</li> </ul>

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<p>Positive impacts. What measures were taken to enhance positive impacts?</p>	<ul style="list-style-type: none"> <li>• The employment opportunities during the construction phase will be largely allocated to individuals living in the local area. Overall human safety will be enhanced, economic viability will be improved, and local development and skills transfer encouraged.</li> <li>• Local opportunities for businesses for during construction phase and temporally job creation during construction.</li> <li>• I&amp;APs will be provided with opportunities to comment on the proposed development during this environmental process, thereby ensuring that all people’s needs, rights and concerns will be addressed through this process.</li> </ul>
<p>Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socioeconomic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)?</p>	<ul style="list-style-type: none"> <li>• No natural resources will be over-utilised. All potential environmental impact and risks associated with the proposed development were assessed as part of this environmental assessment process.</li> </ul>
<p>What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?</p>	<ul style="list-style-type: none"> <li>• The ‘best practicable environmental option’, which relates to the Constitution’s requirement to secure ‘ecologically sustainable development’ requires a consideration of potential negative impacts, known and unknown, against the socio-economic benefits of development. Several options were investigated as potential alternatives to the proposed route. These other options were all found unfeasible and not advanced as alternatives in the formal basic assessment process. Thereafter, the potential impacts of the proposed route were considered and assessed.</li> <li>• The negative impacts of the proposed development can be mitigated by the implementation of the environmental management programme. The proposed development is the best practicable option for the site, since it is intended to provide a necessary amenity for the area.</li> <li>• The proposed development is not expected to have any environmental impacts that will result in fatal flaws providing all the mitigation and management measures to be provided in the EMPr are implemented.</li> </ul>

GUIDELINE QUESTION	RESPONSE
<p>What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)? Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered?</p>	<ul style="list-style-type: none"> <li>• The 'best practicable environmental option', which relates to the Constitution's requirement to secure 'ecologically sustainable development' requires a consideration of potential negative impacts, known and unknown, against the socio-economic benefits of development. Several options were investigated as potential alternatives to the proposed route. These other options were all found unfeasible and not advanced as alternatives in the formal basic assessment process. Thereafter, the potential impacts of the proposed route were considered and assessed.</li> <li>• The negative impacts of the proposed development can be mitigated by the implementation of the environmental management programme. The proposed development is the best practicable option for the site, since it is intended to provide a necessary amenity for the area.</li> </ul>
<ul style="list-style-type: none"> <li>• What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?</li> </ul>	<ul style="list-style-type: none"> <li>• The design alternatives have been undertaken prior to choosing the preferred option; however, the other layouts are not feasible and will have a negative impact on the biophysical and social environments. Therefore, the proposed option 2B is the preferred alternative feasible to achieve applicant's overall safety and security goal for the site area.</li> <li>• There are no adverse environmental impacts that will unfairly discriminate against any person. The identified preferred alternative is sufficient to allow the best practicable environmental option to be selected</li> </ul>
<p>What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?</p>	<ul style="list-style-type: none"> <li>• Under South African environmental legislation, the Applicant is accountable for the potential impacts of the activities that are undertaken and is responsible for managing these impacts throughout the development's life cycle. The Applicant therefore has overall and total environmental responsibility to ensure that the EMPr is implemented and that both the EMPr and the conditions of the Environmental Authorisation are always complied with. The Applicant is also responsible for ensuring that all other applicable legislation is complied with</li> </ul>
<p>What measures were taken to:</p>	
<p>Ensure the participation of all interested and affected parties,</p>	<ul style="list-style-type: none"> <li>• The Public Participation Process undertaken as part of the Basic Assessment is detailed in Section 5 of the BAR. Various methods are employed to notify potential Interested and</li> </ul>

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	Affected Parties of the proposed project, including media notices, written notifications, and site notices; methods are detailed in the BAR
Ensure participation by vulnerable and disadvantaged persons,	<ul style="list-style-type: none"> <li>• Various methods will be used to notify potential I&amp;APs of the proposed development and the opportunity to partake in the PPP as part of the environmental assessment process. These methods include advertisements in newspapers, site notices, giving written notification to the occupiers of the site, the owner and/or person in control of the site, giving written notice to the landowners and/or occupiers of the properties adjacent to the site and the Ward Councillor, and a copy of the BAR at the Macassar Library (if this is allowed at the time of the PPP). The EAP, in the various notifications, has invited I&amp;APs to contact the EAP should there be difficulty in accessing a copy of the report, or in terms of Regulation 41(2) (e), be provided with the information via an alternative method due to illiteracy, disability, or any other disadvantage.</li> </ul>
Promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means,	<ul style="list-style-type: none"> <li>• Opportunities for participation will be provided to all I&amp;APs throughout the environmental assessment process in terms of the EIA Regulations.</li> </ul>
Ensure openness and transparency, and access to information in terms of the process,	<ul style="list-style-type: none"> <li>• Information will be made as accessible as possible in the public participation process.</li> </ul>
Ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein was promoted.	<ul style="list-style-type: none"> <li>• The public participation process will take cognisance of interests, needs and values expressed by all interested and affected parties.</li> <li>• Participation by all interested and affected parties including women and youth will be promoted and opportunities for engagement will be provided during the environmental assessment process.</li> </ul>
Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g. a mixture of low-, middle-,	<ul style="list-style-type: none"> <li>• The municipal councillor of the ward in which the site is situated and any organisation or ratepayers that represent the community in the area will be invited to take part in the public process during the environmental assessment process. The local community will be provided with the opportunity to raise any concerns they may have with the proposed</li> </ul>



GUIDELINE QUESTION	RESPONSE
and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?	<p>development. All issues and concerns raised during the PPP on the BAR will be addressed through the environmental assessment process.</p> <ul style="list-style-type: none"> <li>• The proposed project will result in better management, safety, security and access, and it will lead to the economic growth of the industry and commerce.</li> </ul>
What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?	<ul style="list-style-type: none"> <li>• Please refer to EMPr containing mitigation measures for potential work seekers and employees.</li> <li>• The EMPr includes an environmental awareness programme. Health and safety concerns will be addressed by implementation of occupational health and safety legislation. An Environmental Control Officer will be appointed to monitor compliance with the Environmental Management Programme.</li> </ul>
Describe how the development will impact on job creation in terms of, amongst other aspects:	
The number of temporary versus permanent jobs that will be created,	<ul style="list-style-type: none"> <li>• A contractor will be appointed by the applicant, who will be responsible for the appointment of temporary and permanent staff. The appointments will apply to the construction phase.</li> <li>• Considering the nature of the activity, job opportunities will largely consist of short-term construction phase opportunities</li> </ul>
Whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area),	<ul style="list-style-type: none"> <li>• Local employees should be encouraged to be utilised to encourage skills transfer and development. This will enhance the general area skills, provide job opportunities to potential job seekers, and manage it in the best suitable way.</li> <li>• The jobs created will not require significant skills of the local community as they will largely be for construction workers</li> </ul>
The distance from where labourers will have to travel,	<ul style="list-style-type: none"> <li>• The Sekhukhune Municipality will ensure that those close to the proposed development are given priority in terms of job offers.</li> </ul>
The location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits),	<ul style="list-style-type: none"> <li>• The Sekhukhune Municipality will ensure that those close to the proposed development are given priority in terms of job offers.</li> </ul>

GUIDELINE QUESTION	RESPONSE
The opportunity costs in terms of job creation	<ul style="list-style-type: none"> <li>• During construction phase the proposed development will create temporary job opportunities and for close proximity communities.</li> </ul>
What measures were taken to ensure:	
That there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment,	<ul style="list-style-type: none"> <li>• The authority consultation process carried out by the EAP will assist in coordinating the policies, legislation, and mandates of the various organs of state.</li> <li>• State departments and organs of state that administers a law relating to a matter affecting the environment relevant to this application for Environmental Authorisation, as well as those identified by the competent authority, will be consulted during the PPP to be undertaken as part of the environmental assessment process. Consultation with the state departments and organs of state will assist in coordination of policies and legislation relating to the environment. The consultation process will be undertaken during the PPP.</li> </ul>
That actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	<ul style="list-style-type: none"> <li>• In terms of the Agreement for the One Environmental System the process for a WULA and EIA must be aligned and integrated with respect to the fixed synchronised timeframes, as prescribed in the 2014 NEMA EIA Regulations, as amended and the 2017 WULA Regulations (GN R. 267 of 24 March 2017). This environmental assessment process will therefore take cognisance of this and will be carried out accordingly.</li> <li>• The BA process requires governmental departments to communicate regarding any application. In addition, all relevant Departments and key stakeholders have been notified about the project by the EAP and registered as Interested and Affected Parties, who will continue to be notified and engaged with regarding the project throughout the BA process.</li> </ul>
What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage?	<ul style="list-style-type: none"> <li>• The overarching purpose of the environmental assessment process is to determine, assess and evaluate the consequences (positive and negative) of a proposed development. An iterative approach will be followed as part of this environmental assessment process to achieve the objectives of EIAs - to identify solutions, approaches or options for development that best meets sustainability goals. Throughout the environmental assessment process there will be opportunities to refine and adapt the development proposal to respond to these issues or concerns, in relation to the environmental factors, if necessary.</li> <li>• The PPP to be undertaken as part of this environmental assessment process will provide members of the public (or I&amp;APs) with the opportunity to raise any environmental</li> </ul>

GUIDELINE QUESTION	RESPONSE
	concerns related to the proposed development. All issues and concerns raised will be addressed during the environmental assessment process
Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?	<ul style="list-style-type: none"> <li>The mitigation measures are best practises and can be easily implemented. Through the environmental assessment process, it is not anticipated that there would be any negative long-term impacts.</li> </ul>
What measures were taken to ensure that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment?	<ul style="list-style-type: none"> <li>The mitigation measures described on the BAR were incorporated in the EMPr and it will also become conditions of the environmental authorisation, should it be granted. The Applicant is aware that they are responsible for the implementation of and for compliance with the conditions of all environmental related approvals, and any negative impacts on the environment must be remediate as required</li> </ul>
Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations	<ul style="list-style-type: none"> <li>Refer to Section 3.5 of the BAR for a full description of alternatives and selection of the best practicable environmental option</li> </ul>
Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area?	<ul style="list-style-type: none"> <li>Positive socioeconomic impacts include the creation of employment, which will contribute cumulatively to economic development in the area.</li> <li>Negative cumulative socio-economic impacts include the potential potholes. This negative cumulative impact can be adequately mitigated if monitored.</li> </ul>