










ENVIRONMENTAL IMPACT MANAGEMENT SERVICES

FINAL

BASIC ASSESSMENT REPORT

THE PROPOSED CONSTRUCTION OF THE MNGAZI RIVER BRIDGE AND ACCESS ROAD NEAR PORT ST JOHNS

DEA Ref: 14/12/16/3/3/1/725

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FINAL BASIC ASSESSMENT REPORT
The Proposed Construction of the Mngazi River Bridge and Access Road near Port St Johns

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REVISION AND AMENDMENTS

DATE	No.	DESCRIPTION OF REVISION OR AMENDMENT
2013/07/18	0	The Proposed Construction of the Mngazi River Bridge and Access Road Basic Assessment
2013/10/07	1	The Proposed Construction of the Mngazi River Bridge and Access Road Basic Assessment

SUMMARY DATA

Project:	**The Proposed Construction of the Mngazi Bridge and Access Road near Port St Johns**
Location:	**Port St Johns, Eastern Cape**
Client:	**South African National Road Agency Limited**
Consultant:	**Environmental Impact Management Services (Pty) Ltd (EIMS).**
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environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

(For official use only)

File Reference Number:	
Application Number:	
Date Received:	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **1 September 2012**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.

15. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section? YES ☒ NO ☐
If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

This project will involve the construction of an access road and bridge across the Mngazi River (situated 71 km from Mthatha on the R61), which falls under the jurisdiction of the Port St Johns Local Municipality in the Eastern Cape. The existing access to the village is located approximately 270 m in an Easterly direction (towards Port St Johns) from the proposed bridge and access road site. It is proposed that the existing gravel access road will be closed off from the R61 by guard rails.

The existing access road is concealed by existing R61 dimensions and as such creates a dangerous turning area off the R61. The proposed bridge and access road will therefore provide a safer and more formalised access to the local communities and thereby ensure pedestrian and vehicular safety. Please refer to Appendix A showing the proposed access road and bridge.

The road will be approximately 5.5 metres wide and 380 metres long and will join the existing gravel road going into the village. The bridge structure will carry a single 4 m wide land together with a 1.5 m pedestrian walkway (5.5 m). The bridge structure will have a total length of 60 m.

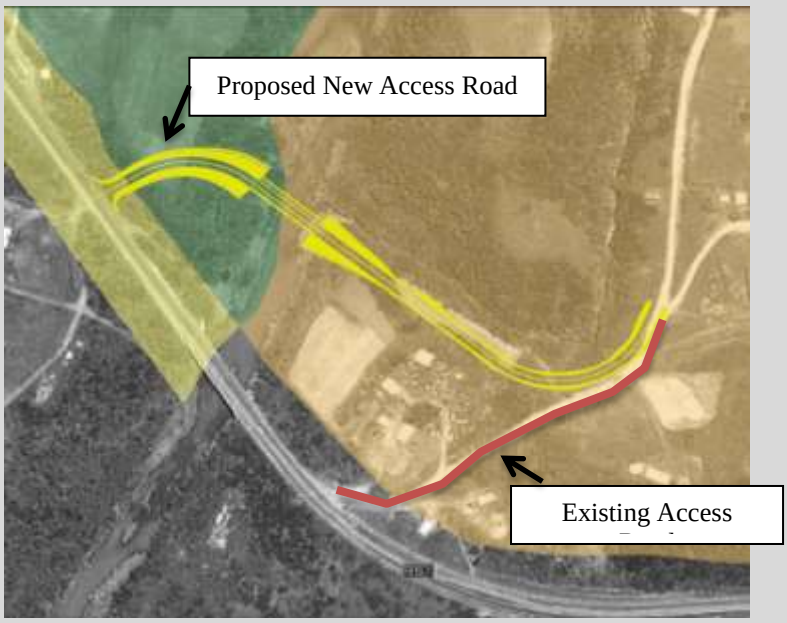

Figure 1: Proposed New Access Road and bridge across the Mngazi River

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN R.544, 545 and 546	Description of project activity
GNR 544, Listing Notice 1, Activity 11: The construction of: (i) canals; (ii) channels; (iii) bridges; (iv) dams; (v) weirs; (vi) bulk storm water outlet structures; (vii) marinas; (viii) jetties	The construction of Mngazi River Bridge and Access Road will involve the construction of a bridge 60m in length within 32m of a watercourse.

exceeding 50 square metres in size; (ix) slipways exceeding 50 square metres in size; (x) buildings exceeding 50 square metres in size; or (xi) infrastructure or structures covering 50 square metres or more where such construction occurs within a watercourse or within 32 metres or a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line."	
GNR 544, Listing Notice 1, Activity 18: "The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil sand shells shell grit, pebbles or rock from (i) a watercourse; (ii) the sea; (iii) the seashore; (iv) the littoral active zone, an estuary or a distance of 100 metres inland of the high water mark of the sea or an estuary, whichever distance is the greater but excluding where such infilling, depositing, dredging, excavation, removal or moving (i) is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or (ii) occurs behind the development setback line."	The construction of Mngazi River Bridge and Access Road will involve the infilling/depositing/removal of material from a watercourse, namely the Mngazi River.
GNR 544, Listing Notice 1, Activity 22: "The construction of a road, outside urban areas, (i) with a reserve wider than 13.5 meters or, (ii) where no reserve exists where the road is wider than 8 metres, or (iii) for which an environmental authorisation was obtained for the route determination in terms of the activity 5 in Government Notice 387 of 2006 or activity 18 in Notice 545 of 2012."	The deck width of the Mngazi Bridge will be 5.5m
GNR 546, Listing Notice 3, Activity 12: "The clearance of an area of 300 square meters or more of vegetation where 75% or more of the vegetation cover constitutes indigenous vegetation. (a) Within a critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; (b) Within critical biodiversity areas identified in bioregional plans; (c) Within the littoral active zone or 100 meters inland from high water make of the sea or an estuary, whichever distance is greater, excluding where such removal will occur behind the development setback line on erven in urban areas."	Vegetation will need to be cleared in order for the access road and bridge to be constructed. The area falls within a critical biodiversity area (CBA).
GNR 546, Listing Notice 3, Activity 16: "The construction of: (i) Jetties exceeding 10 square metres in	The construction of the bridge and access road will occur within 32m from a watercourse within a CBA.

size; (ii) Slipways exceeding 10 square metres in size; (iii) buildings with a footprint exceeding 10 square meters in size; or (iv) infrastructure exceeding 10 square meters or more where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse excluding where such expansion will occur behind the development setback line (a) In Eastern Cape (ii) Outside urban areas, in: (aa) A protected area identified in terms of the NEMPAA, excluding conservancies; (bb) National Protected Area Expansion Strategy Focus areas; (cc) World Heritage Sites; (dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (ee) Sites or areas identified in terms of an International Convention; (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (gg) Core areas in biosphere reserves; (hh) Areas within 10 kilometres from national parks or World heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve; (ii) Areas seawards of the development setback line or within 1 kilometre from the high water mark of the sea if no such development setback line is determined.”	

2. FEASIBLE AND REASONABLE ALTERNATIVES

“alternatives”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

Describe alternatives that are considered in this application as required by Regulation 22(2)(h) of GN R.543. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be

included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Mngazi River Bridge and Access Road: At present, the local residents use an access gravel road that is also used by vehicles into the Swazin A village. Furthermore, the gravel road connection is easily concealed by the road dimensions and, as such, poses an accident risk due to visibility. With the access road being located directly on the R61 there have been a number of accidents. In considering location alternatives, selection criteria included, inter alia: determination of the feasible and financially viable development site, landowner negotiations and communications with local village authorities. A feasible and financially viable development zone with a footprint of 1252 m^2 was identified. During the BA process specialist Aquatic Ecology and Heritage studies were undertaken in order to allow the development footprint to avoid any sensitive features (please refer to Appendix D for specialist reports). The current development zone is the preferred alternative for the following reasons: •It will provide safe access for both vehicles and pedestrians, •It has minimal impact on the river and tributaries that are in close proximity to development, •It has a very low impact on properties and landowners, and •It is the most feasible and financially viable option.	31°35'19.98"S	28°47'59.94"E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Upgrading the existing Access Road: As mentioning above, there is an existing gravel road (connecting to the R61) into Swazin A village that is utilised by pedestrians and vehicles. **We would like to draw your attention to the fact that upgrading the existing access road WAS NOT considered**	31°36'40.70"S	29°24'19.73"E

as a feasible alternative due to the following reasons: • The purpose of this assessment is to provide residents with safer access to their village. • Upgrading the existing access road would still result in the access road being situated on a dangerous curve, which has recorded a number of accidents over time. • The safest location for the alignment of the access road to the R61 was situated further up the road, across the Mngazi River, as shown in Appendix A (locality map). • This alignment requires access across the Mngazi River, by constructing a bridge, to avoid the unsafe existing access road being used by residents in the area. **Therefore, due to the reasons stated above, Alternative 2 will not be assessed as it is not feasible.** Alternative 1 (preferred alternative) will be assessed further in this report.		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
Alternative S1 (preferred)		
• Starting point of the activity	31°35'19.98"S	28°47'59.94"E
• Middle/Additional point of the activity	31°35'19.98"S	28°47'59.94"E
• End point of the activity	31°35'19.98"S	28°47'59.94"E
Alternative S2 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S3 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)

Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

c) Technology alternatives

Alternative 1
Alternative 2
Alternative 3

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Bridge Design Alternative 1
A low-level structure (**Error! Reference source not found.**) able to accommodate a 1:10 year flood was considered (design flood for R4 route). This structure has five 12 m spans and a total length of 60 m. The deck would be solid slab with tapered edges (span/d ration of 18.5). The piers would comprise of solid walls on spread footings. River diversions and drainage of excavations would be necessary for the construction of the foundations. The abutments would comprise of solid walls with splayed wingwalls. The deck would be made monolithic with the substructure to eliminate bearings and joints. Bollards and collapsible handrails would be provided at the deck edges. The 1:10 year flood level is 34.3 m, allowing a required freeboard of 0.8 m meaning that the soffit needs to be at 35.1m (assuming a structural depth of 0.6 m gives a top deck level of 35.7 m). This is 0.15 m above the 1:20 year flood level and 1.3 m below the 1:50 year flood level.
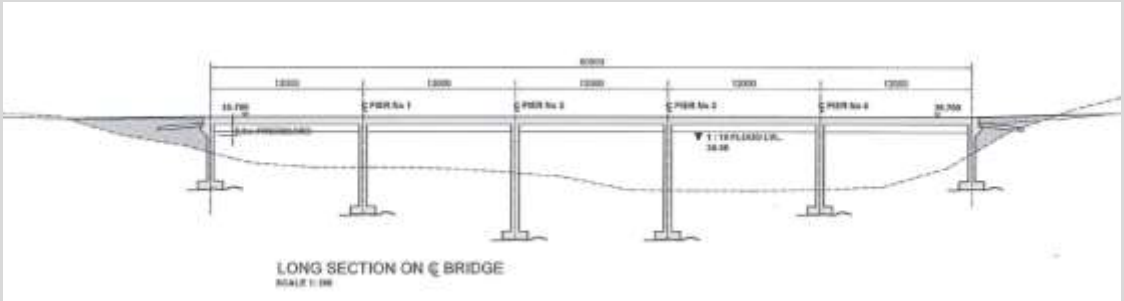
Figure 2: Low-level structure (34.50 m) able to accommodate a 1:10 year flood level
Alternative 2 (preferred alternative)
Option B would be a low-level structure able to accommodate a 1:10 year flood level. The structure will have three 20 m spans and a total length of 60 m. The deck would comprise of arched beams with a slab deck (span/d ratio varies from 25 at midpoint to 15 at the piers and abutments). The piers would consist of solid walls with rounded ends supported on spread footings. The abutments would consist of solid walls and splayed wingwalls. The deck would be made monolithic with the substructure to eliminate bearings and joints. Bollards and collapsible handrails would be provided at the deck edges.

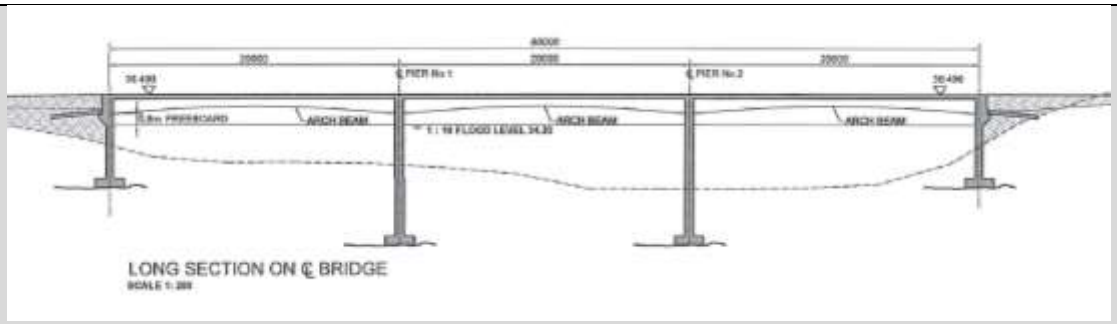

Figure 3: Low-level structure (34.40 m) able to accommodate a 1:10 year flood level

Alternative 3

The high-level structure (see **Error! Reference source not found.**) with the same opening width was then investigated to accommodate a 1:50 year flood, with a level of 37 m (allowing for a freeboard of 1.1 m means the soffit needs to be 38.1 m). This structure would have three 20 m spans with a deck comprising of precast M beams with a cast in-situ slab. The beams would be supported on elastomeric bearings on wall type piers and abutments. The deck has a span/d ratio of 16.3. The deck top surface would be at 39.3 m, which is above the 1:100 year flood level of 38.2 m. This structure is 8 m above river level.

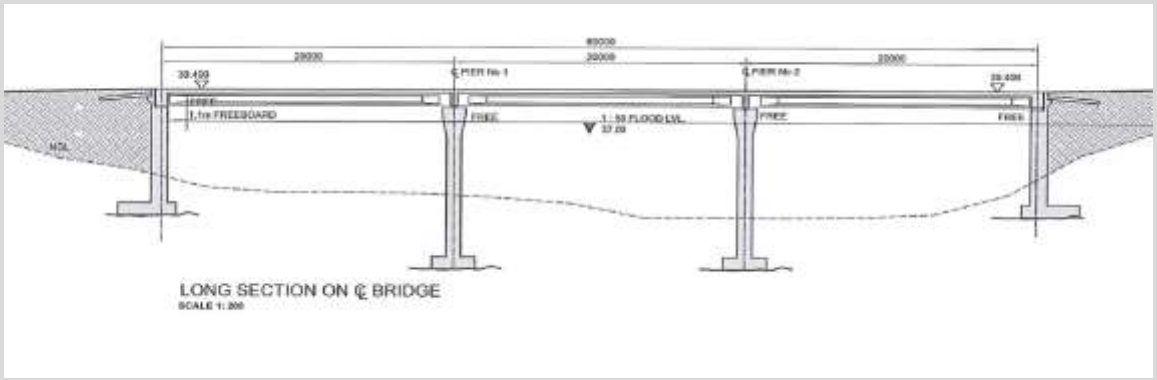

Figure 4: High-level structure (37 m) able to accommodate a 1:50 year flood level

Hatch Goba (2013) reported that neither of the options investigated influenced the freeboard of the existing R61 Bridge which meets the class R2 criteria.

It was concluded that Option C was not feasible as 1) it fits poorly with the topography, 2) would require a high fill on both approaches and 3) it also has the poorest aesthetic and is substantially more expensive to construct than the other options.

Option A was reported to fit well with the topography and would require minor approach fills only, however it was not considered feasible due to the high costs associated with access and drainage of the four piers together with a structurally inefficient deck.

Option B was considered favourable as it fits well with the topography and has the most efficient structural system. This structure is arguably the most aesthetically pleasing and is the most cost effective to construct. Therefore Hatch Goba (2013) recommended that Option B be adopted for construction.

In addition to the conclusions reached by Hatch Goba (2013), Option B would have a smaller impact on the physical attributes of the river and river biota as it will be the less intrusive during construction and operation in comparison to Option A. This is due to Option B having three 20 m spans in

comparison to Option A (five 12 m spans).

Therefore, due to the reasons above, Only Option B will be assessed further.

e) No-go alternative

The current access into the Swazin A village is less than desirable for both pedestrians and vehicles. There is a need for safer infrastructure connecting to the R61 for both pedestrians and vehicles. If the project does not proceed, the current unavailability of safe infrastructure and concerns over the accident rate will continue and there will be no opportunities for economic development taking place. The area is semi-rural and would benefit from the economic boost and infrastructure that increases vehicle and pedestrian safety.

Paragraphs 3 – 13 below should be completed for each alternative.

3. PHYSICAL SIZE OF THE ACTIVITY

a) Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:	**Size of the activity:**
Alternative A1[1] (preferred activity alternative)	m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

or, for linear activities:

Alternative:	**Length of the activity:**
Mngazi River Bridge and Access Road Alternative A1 (preferred activity alternative)	330m
Alternative A2 (if any)	m

b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude:**
Mngazi River Bridge and Access Road Alternative A1 (preferred activity alternative)	1253m^2
Alternative A2 (if any)	m^2

4. SITE ACCESS

Does ready access to the site exist?	YES	NO

[1] "Alternative A.." refer to activity, process, technology or other alternatives.

If NO, what is the distance over which a new access road will be built | m |

Describe the type of access road planned:

Access to development site already exists.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

5. LOCALITY MAP

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s;)
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).

6. LAYOUT/ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

8. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report**.** It must be supplemented with additional photographs of relevant features on the site, if applicable.

9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

10. ACTIVITY MOTIVATION

Motivate and explain the need and desirability of the activity (including demand for the activity):

1. Is the activity permitted in terms of the property's existing land use rights?	YES	NO	Please explain
A servitude will be registered and the landowner compensated accordingly.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
The R61 is a provincial road under the control and responsibility of SANRAL. The access road and associated bridge is required to provide a safe access to the R61 at an appropriate angle and alignment.			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
The activity falls outside of the urban edge of Port St Johns and Mthatha			

(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES	NO	Please explain
The Port St Johns Local Municipality IDP and SDF (2012/13-2016/17) mentions, "Three main rivers are found in Port St. John's. The largest river is the Umzimvubu River. These rivers flow from the north into the Indian Ocean in the south. They separate the municipality into 3 catchments areas. Ward boundaries in some wards are determined by these rivers. These rivers have an impact on the mobility and safety of the communities, with many communities citing frequent drowning as a result of inadequate infrastructure to cross the rivers in the form of boats and bridges." It further states that, "The mandate of the municipality therefore relates to: • ensuring that local communities are provided with services and infrastructure; • promoting social and economic development, a safe and healthy environment;" Since this development will lead to the construction of the Mngazi bridge and the upgrade and re-alignment of an access road, it is an anticipated to be in line with the local planning context.			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
The .Port St Johns Local Municipality IDP and SDF (2012/13-2016/17) mentions, "Three main rivers are found in Port St. John's. The largest river is the Umzimvubu River. These rivers flow from the north into the Indian Ocean in the south. They separate the municipality into 3 catchments areas. Ward boundaries in some wards are determined by these rivers. These rivers have an impact on the mobility and safety of the communities, with many communities citing frequent drowning as a result of inadequate infrastructure to cross the rivers in the form of boats and bridges." It further states that, "The mandate of the municipality therefore relates to: • ensuring that local communities are provided with services and infrastructure; • promoting social and economic development, a safe and healthy environment;" Since this development will lead to the construction of the Mngazi bridge and the upgrade and re-alignment of an access road, it is an anticipated to be in line with the local planning context			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
No EMF has been complied for the area			
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain

3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
The Port St Johns Local Municipality IDP and SDF (2012/13-2016/17) states, "Summary of the Situational Analysis: Roads: 980km require upgrading of which 19km (54% of the target) was done in the 2010/11 financial year. There was 64% expenditure of the budget for road related works." It further states that, "The mandate of the municipality therefore relates to: • ensuring that local communities are provided with services and infrastructure; • promoting social and economic development, a safe and healthy environment;"			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
The development will provide safe access to and from the communities located in close proximity to the development site. Additionally, there will be employment opportunities created for local residents. Local residents will be provided with adequate road infrastructure for vehicles and safer access to the adjacent communities.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
The proposed development will not require services from the local municipality.			
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
The R61 is a provincial road under the control and responsibility of SANRAL. The access road and associated bridge is required to provide a safe access to the R61 at an appropriate angle and alignment.			
7. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
The alignment of the existing access road will need to be changed in order to allow for safer access onto the R61			

8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES	NO	Please explain
Although and existing access road is present, the new alignment of the access road will facilitate appropriate and safe access to the R61 from the neighbouring communities.			
9. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain
The bridge designs for this access road take into account the likely flood events and provides for safe and adequate passage in the event of flood events. Flow of water will also not be impeded significantly due to bridge design.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES	NO	Please explain
The negative impacts will largely be restricted to the construction phase and will be mitigated in line with the EMPR for this development. The development will provide safe access to and from the communities located in close proximity to the development site. Additionally, there will be employment opportunities created for local residents.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO	Please explain
This access road is in line with the SANRAL mandate to ensure provision of suitable and safe access to the provincial road R61.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO	Please explain
The landowner is currently negotiating suitable compensation for the affected portion of her land and has consented to the development proceeding on the land.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO	Please explain
The activity falls outside the urban edge of Port St Johns and Mthatha			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO	Please explain
The project may contribute to infrastructure and road maintenance programmes within the municipality (SIP 6: Integrated municipal infrastructure project).			
15. What will the benefits be to society in general and to the local communities?			Please explain
The development will provide safe access to and from the communities located in close proximity to the development site. Additionally, there will be employment opportunities created for local residents. Local residents will be provided with adequate road infrastructure for vehicles and safer access to the adjacent communities.			

16. Any other need and desirability considerations related to the proposed activity?	Please explain
Local residents will be provided with adequate road infrastructure for vehicles and safer access onto the R61.	
17. How does the project fit into the National Development Plan for 2030?	Please explain
The Mngazi River Bridge and Access Road aligns with the National Development Plan in that it will provide improved infrastructure to the local community through safer access, as the existing access road does not align well with the R61.	
18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.	
The general objectives have been taken into account in that: a) The Basic Assessment Report has identified and evaluated potential impacts from the proposed development (see Section D) b) Public Participation has been conducted according to the regulations (see the Issues and Responses Report in Appendix E). The impacts of the development have been given adequate consideration by both the Environmental Assessment Practitioner (EAP) and the Ecological and Heritage Specialists.	
19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.	
This development does comply with the principles of environmental management in that: a) It places people and their needs at the forefront by accessing the best possible alternative for the local community (safer access) and by providing the public with an opportunity to comment and raise concerns, if any, through the public participation process b) Assessing different alternatives helps ensure that the development takes into consideration the best outcome in terms of social, environmental, and economic aspects. Disturbance to the receiving environment (ecological and social) and potential pollution from the development has been taking into consideration through thorough investigations by an Ecological and Heritage Specialist and by the EAP. Mitigation measures for all impacts identified have been included in a Environmental Management Plan which will be used to monitor the development.t	

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
GNR 544, Listing Notice 1, Activity 11:	The construction of Mngazi River Bridge and Access Road will involve the construction of a bridge 60m in length within 32m of a watercourse.	Department of Environmental Affairs	18 June 2010
GNR 544, Listing Notice 1, Activity 18	The construction of Mngazi River Bridge and Access Road will involve the	Department of Environmental Affairs	18 June 2010

	infilling/depositing/removal of material from a watercourse, namely the Mngazi River.		
GNR 544, Listing Notice 1, Activity 22	The deck width of the Mngazi Bridge will be 5.5m	Department of Environmental Affairs	18 June 2010
GNR 546, Listing Notice 3, Activity 12	Vegetation will need to be cleared in order for the access road and bridge to be constructed. The area falls within a critical biodiversity area (Aquatic CBA 1).	Department of Environmental Affairs	18 June 2010
GNR 546, Listing Notice 3, Activity 16	The construction of the bridge and access road will occur within 32m from a watercourse within a CBA (Aquatic CBA 1).	Department of Environmental Affairs	18 June 2010

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	YES	NO
If YES, what estimated quantity will be produced per month?	±20m^3	

How will the construction solid waste be disposed of (describe)?

The solid waste produced during the construction phase will be kept to a minimum. This waste will be disposed of at a suitably registered waste disposal site. It is important to note that construction solid waste will be composed of standard building rubble.

Where will the construction solid waste be disposed of (describe)?

Construction solid waste will be disposed of at a registered waste disposal site

Will the activity produce solid waste during its operational phase?	YES	NO
If YES, what estimated quantity will be produced per month?		m^3

How will the solid waste be disposed of (describe)?

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?	YES	~~NO~~

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	~~NO~~

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	~~NO~~
If YES, what estimated quantity will be produced per month?		m^3
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	~~NO~~

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	NO
If YES, provice the particulars of the facility:		
Facility name:		
Contact person:		
Postal address:		
Postal code:		
Telephone:	**Cell:**	
E-mail:	**Fax:**	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Waste water will be reused where possible when washing construction equipment or during mixing of mortar.

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?	YES	~~NO~~
If YES, is it controlled by any legislation of any sphere of government?	YES	~~NO~~

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the emissions in terms of type and concentration:

Emissions will result from dust during the construction phase. However, due to the relatively small size and short duration of the construction (± 6 months) it is anticipated that there will be minimal dust generated, should dust suppression measures be implemented successfully. The rate of emission shall comply with the national air quality standard of PM10 promulgated under the National Environmental Management: Air Quality Act (Act 39 of 2004).

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	YES	~~NO~~

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?	~~YES~~	NO
If YES, is it controlled by any legislation of any sphere of government?	YES	~~NO~~

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If NO, describe the noise in terms of type and level:

Noise will result from construction activities on site during the construction phase. During the operational phase, noise will be generated by vehicles utilising the road. However, the existing access road, which is located almost 225m towards a south easterly direction from the proposed new access road site, will be closed to traffic. Furthermore, the proposed access road provides access to a relatively busy road (R61) and therefore, it is anticipated that there will not be a significant change in noise levels during the operational phase.

13. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

~~Municipal~~	Water board	Groundwater	River, stream, dam or lake	Other	The activity will not use water

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:		litres
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?	~~YES~~	NO

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

Please refer to attachment in Appendix H for Water Use License Application proof of submission

14. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

The activity will not make use of energy from the national grid and energy requirements will be limited to the use of fuel for construction activities and equipment. Efficient use of fuel would be ensured by minimizing the amount of trips undertaken by construction vehicles and by ensuring that the construction vehicles are properly serviced.

The activity will not require any energy during the operational phase.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

No alternative energy sources will be utilised during the construction or operational phases

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A): **1**

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section? YES ~~NO~~

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	Eastern Cape Province
District Municipality	OR Tambo District Municipality
Local Municipality	Port St Johns Local Municipality
Ward Number(s)	
Farm name and number	Mzimvubu Erf 48, Remainder of Mzimvubu Farm 37 and Remainder of Mzimvubu Erf 11111111.
Portion number	
SG Code	

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:

Remainder of Farm 37 is zoned as an Agricultural zone, while the remainder of the un-alienated state land (Erf 11111111) is zoned as an open space

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required? YES ~~NO~~

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 Ridgeline		2.4 Closed valley		2.7 Undulating plain / low hills	
2.2 Plateau		2.5 Open valley	X	2.8 Dune	
2.3 Side slope of hill/mountain	X	2.6 Plain	X	2.9 Seafront	

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following?

	Alternative S1:		**Alternative S2 (if any):**		**Alternative S3 (if any):**	
Shallow water table (less than 1.5m deep)	X YES	NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	X NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	X YES	NO	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	X YES	NO	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	X NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	X NO	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	X NO	YES	NO	YES	NO
An area sensitive to erosion	YES	X NO	YES	NO	YES	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

4. GROUNDCOVER

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition[E]	~~Natural veld with scattered aliens[E]~~	Natural veld with heavy alien infestation[E]	Veld dominated by alien species[E]	~~Gardens~~
Sport field	~~Cultivated land~~	Paved surface	~~Building or other structure~~	~~Bare soil~~

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	~~YES~~	NO	UNSURE
Non-Perennial River	YES	NO	UNSURE
Permanent Wetland	YES	NO	UNSURE
Seasonal Wetland	YES	NO	UNSURE
Artificial Wetland	YES	NO	UNSURE
Estuarine / Lagoonal wetland	YES	NO	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

The Mngazi River is a large river system with a good ecological condition located within a large catchment that is still predominantly natural and intact with few impacts (Class B: Largely Natural in terms of its Present Ecological State). The Mngazi River is located about 20km west of Port St Johns above an existing road bridge on the R61 Provincial Road between Qhaka and Mgxabakazi (a small tributary river of the Mngazi River located immediately east of the main channel).

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station [H]
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential[A]	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland

Light industrial	Sewage treatment plant[A]	Nature conservation area
Medium industrial [AN]	Train station or shunting yard [N]	Mountain, koppie or ridge
Heavy industrial [AN]	Railway line [N]	Museum
Power station	Major road (4 lanes or more) [N]	Historical building
Office/consulting room	Airport [N]	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam[A]	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

If any of the boxes marked with an "N "are ticked, how will this impact / be impacted upon by the proposed activity?

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	~~YES~~	NO
Core area of a protected area?	YES	~~NO~~
Buffer area of a protected area?	YES	~~NO~~
Planned expansion area of an existing protected area?	YES	~~NO~~
Existing offset area associated with a previous Environmental Authorisation?	YES	~~NO~~
Buffer area of the SKA?	YES	~~NO~~

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

7. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:	YES	NO
	Uncertain	

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

As far as can be gauged no culturally sensitive pre-18th century artefacts have been found in the zone although oral history (not required in this study) might show that different groups (such as Early, Middle and Stone Age man, San, Khoekhoen and Black Xhosa speaking peoples) once lived in this area. No graveyards or informal graves were found in the preliminary survey. If further findings e.g. burial sites are discovered in the course of excavation or construction it is imperative that SAHRA, ECPHRA and/or the senior historian be informed immediately of the situation so that any relevant material may be investigated or collected before it is destroyed.
Please refer to the HIA report attached in Appendix D for further details.

Will any building or structure older than 60 years be affected in any way?	YES	~~NO~~
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	~~NO~~

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

The heritage authorities (SAHRA and Eastern Cape Province Heritage Resource Agency) were informed of the activity and requested to comment and/or provide their input where necessary.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

According to the Port St Johns (PSJ) Local Municipality IDP (2012), 54% of the population is not working. 49% is not economically active, 5% of the population is not employed.

Economic profile of local municipality:

The major contributor to the GDP of the municipality is community services contributing 66,6% of the GDP and providing accounting for 46,5% of the employees. Community services is followed by trade and manufacturing contributing 12,3 % and 8,6% respectively. There are electricity/energy generating activities undertaken within the municipality whilst mining is done for sand and quarry. Due to its rural nature, agriculture is the main economic activity though it is practise at a peasant/subsistence level (PSF IDP, 2012).

Level of education:

The current illiteracy in the municipality, i.e. residents who have never had a formal schooling is estimated at 12%, a significant improvement from 26% estimated to be the illiteracy rate in 2001. There is no data on school going age group who are not in school and those that are over the normal schooling age and have never gone to school. Generally, school attendance is a big challenge requiring a special focus. In OR Tambo District Municipality, it is estimated that 24.4% of the population under the ages of 15 years had never been to school, a figure twice that of Port St Johns' 12% (ORTDM IDP 2011/12 p.54) (PSJ IDP, 2012).

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R8 000 000	
What is the expected yearly income that will be generated by or as a result of the activity?	R0.00	
Will the activity contribute to service infrastructure?	~~YES~~	NO
Is the activity a public amenity?	~~YES~~	NO
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	20	
What is the expected value of the employment opportunities during the development and construction phase?	R180 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	100%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	None	
What is the expected current value of the employment opportunities during the first 10 years?	R180 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	100%	

9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category	If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan

Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	According to the Eastern Cape Biodiversity Plan (Hayes *et al*., 2007), the Mngazi River is located within an aquatic Critical Biodiversity Area (Aquatic CBA 1). Aquatic CBA 1 (A1) areas represent critically important river sub-catchments in a natural state that are considered critical for conserving biodiversity and maintaining ecosystem functioning (Hayes *et al*., 2007). The entire catchment area of the Mngazi River is considered a river FEPA and Fish Sanctuary according to the National Freshwater Ecosystem Priority Areas coverage (CSIR, 2011).

b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	80%	The river is a relatively large perennial system dominated by a bedrock channel with numerous depositional features in the form of large cobble/boulder/gravel bars. The river is currently in a good ecological condition due to the largely natural state of the river catchment, with limited anthropogenic impacts anticipated.
Near Natural (includes areas with low to moderate level of alien invasive plants)	10%	Disturbance of the marginal zone is very limited, with few exotic species occurring. The riparian zone has been disturbed to a fairly large extent, particularly on the right hand bank and this is due to a combination of human access, subsistence agriculture and water abstractions taking place. Numerous exotic species have colonised the area, attributed largely to the current disturbance regime at the site. Species include alien invasive woody species such as Caesalpinia decapetala, Solanum chrysotrichum (Devils fig), Lantana camara, Psidium guajava and Solanum mauritianum. A number of herbaceous invader species such as Chromolaena odorata and Canna indica can also be observed to a lesser extent.
Degraded (includes areas heavily invaded by alien plants)	%	

Transformed (includes cultivation, dams, urban, plantation, roads, etc)	10%	A brief scan of land use in the surrounding catchment using Google Earth™ revealed that there are a number of clustered rural/informal settlements and cultivated lands associated with subsistence farming in the catchment immediately upstream of the river reach assessed. These activities are likely to have resulted in a slight alteration to reference state water quality, with the delivery of sediments and faecal bacteria a possibility. Agriculture covers about 30% of the catchment, mainly in the form of subsistence livestock and crop farming, commercial forestry and intermittently irrigated crops. Rural settlements account for the remaining ~10% of the area.

c) Complete the table to indicate:

(i) the type of vegetation, including its ecosystem status, present on the site; and
(ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		**Aquatic Ecosystems**						
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
	Endangered							
	Vulnerable							
	~~Least Threatened~~	~~YES~~	NO	UNSURE	YES	~~NO~~	YES	~~NO~~

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

The Mngazi River is located within the Sub-Escarpment Savanna bioregion (Mucina & Rutherford, 2006), with the catchment being characterized by eastern valley bushveld (least threatened), southern mistbelt forest and Transkei coastal belt vegetation types. Due to limited catchment transformation, the natural vegetation composition remains largely intact across much of the river catchment. The Mngazi River is located within an aquatic Critical Biodiversity Area (Aquatic CBA 1). The entire catchment area of the Mngazi River is considered a river FEPA and Fish Sanctuary according to the National Freshwater Ecosystem Priority Areas coverage (CSIR, 2011).

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Daily Dispatch	
Date published	12 October 2012	
Site notice position	**Latitude**	**Longitude**
	31°36'34.73"S	29°24'18.66"E
Date placed	12 October 2013	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 54(2)(e) and 54(7) of GN R.543.

Please refer to Section 1.1 of the CRR in Appendix E.

Key stakeholders (other than organs of state) identified in terms of Regulation 54(2)(b) of GN R.543:

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Chief T. Langa	Landowner	P.O. Box 182611 Tombo Port St Johns 5120
Ms Bahle Keikelame	Landowner	0823778295
Mr and Mrs Sanqela	Landowner	078 952 9896 073 933 0171

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
No formal issues have been raised as of yet	

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Eastern Cape Department of Economic Development, Environmental Affairs and Tourism	Mr Sizakele Gabula	0475311191		sizakele.gabula@deaet.ecape.gov.za	Private Bag x5029, Mthatha, 5099
Department of Water Affairs (DWA)	Mr Mlondolozi Mbikwana; Mrs Mandisa Nduna	0437010366		mbikwanam@dwa.gov.za; ndunam@dwa.gov.za	02 Moore Street, Ocean Terrace Building, Quiqney, 5201
South African Heritage Resource Agency	Dr Mariagrazia Galimberti	0214624502		mgalimberti@sahra.org.za	111 Harrington Street, Cape Town, 8000
Eastern Cape Provincial Heritage Resource Authority	Mr M. L. Zote; Ms Africa Maxongo	0436422811		nmaxongo@ecphra.org.za	Department of Public Works building at corner Amalinda and Scholl Road, East London.
Department of Rural	Ms Bahle Keikelame	0437007000		bdjkeikelame@ruraldevelopment.gov.za	15 Coutts Road,

Development and Land Reform					Ocean Terrace, Block F, Quigney, East London, 5201
Department of Roads and Transport	Mr Alson Sibulele Msindo	0475326534 or 0475018862		sibulele.msindo@dot.ecprov.gov.za	Cnr Owen and Leeds Street, Botha Sigcau Building, 7th Floor, Office No. 42, Mthatha, 5099
Department of Environmental Affairs	Ms Mmatlala Rabothatha	0123951768		mrabothata@environment.gov.za	Fedsure Forum Building; 315 Pretorius Street; Pretoria, 0002

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

Please note that a detailed description of the impact rating methodology and a detailed account of the impacts and mitigation measures have been attached as Appendix G. The summary provided in the table below reflects the impacts identified for each of the phases of the proposed development.

Table 1: Summary of the impact assessment results for the Mngazi River crossing

Impact	Nature	Environmental Risk	Nature	Environmental Risk	Public Response	Cumulative Impacts	Irreplaceable loss of resources	Prioritisation Factor	Final Significance Score
Planning and Design Phase									
1. Job Creation	Positive	10	Positive	10	None	Low	Low	1	10
Construction Phase									
2. Job Creation	Positive	13.7	Positive	13.7	None	Low	Low	1	13.7
3. Changes to water quality	Negative	-13	Negative	-4	None	Medium	Medium	1.3	-5.3
4. Soil erosion and sedimentation	Negative	-9	Negative	-2.5	None	Low	Low	1	-2.5
5. Disturbance of in-stream habitat and biota	Negative	-15	Negative	-12.5	None	Medium	Medium	1.3	-16.7
6. Disturbance of river bank structure	Negative	-9	Negative	-4.5	None	Low	Low	1	-4.5
7. Destruction of riparian vegetation and habitat	Negative	-11	Negative	-7	None	Low	Medium	1.2	-8.2
8. Traffic	Negative	-10	Negative	-7	None	Low	Low	1	-7
9. Discovery of sub-surface	Negative	-9.75	Negative	-6	None	Low	Low	1	-6

Impact	Nature	Environmental Risk	Nature	Environmental Risk	Public Response	Cumulative Impacts	Irreplaceable loss of resources	Prioritisation Factor	Final Significance Score
archaeological finds									
10. Discovery of unknown sub-surface human remains	Negative	-9.75	Negative	-6	None	Low	Low	1	-6
11. Increased noise and light pollution	Negative	-13	Negative	-13	None	Low	Low	1	-13
Operational Phase									
12. Changes to the hydrological regime and increased potential for erosion/ sedimentation	Negative	-16	Negative	-14	None	Medium	Low	1.2	-16.33
13. Changes in channel structure, ecosystems and dynamics	Negative	-16	Negative	-9.75	None	Low	Low	1	-9.75
14. Invasion by weeds and IAPs	Negative	-11	Negative	-5.25	None	Medium	Medium	1.3	-7
15. Chemical pollution	Negative	-10.5	Negative	-6	None	Medium	Medium	1.3	-8
16. Increased fire risk	Negative	-10.5	Negative	-6.5	None	Medium	Medium	1.3	-8.7

Impact	Nature	Environmental Risk	Nature	Environmental Risk	Public Response	Cumulative Impacts	Irreplaceable loss of resources	Prioritisation Factor	Final Significance Score
17. Increased noise and light pollution	Negative	-13	Negative	-13	None	Low	Low	1	-13
18. Increased solid waste dumping/littering	Negative	-8.25	Negative	-6	None	Low	Low		-6
19. Traffic	Positive	7.5	Positive	7.5	None	Low	Low	1	7.5

A complete impact assessment in terms of Regulation 22(2)(i) of GN R.543 must be included as Appendix F.

2. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (preferred alternative)
The proposed development has the identified Alternative 1 with Bridge Design Alternative 2 (see Appendix A & C) as the preferred and only financially viable alternative for the reasons detailed below: It is anticipated that the development will be completed over a relatively short period. The proposed/preferred alternative will result in minimal losses of riparian and other types of vegetation. Upon assessment of the site, there were no major compelling environmental concerns that would hinder the proposed development. The negative impacts resulting from the proposed development will occur during the planning, construction, operation and decommissioning phase. The majority of the impacts would have a limited extent after successful implementation of mitigation measures. The potential impacts associated with the proposed development are related to changes and/or disturbances in the following: water quality, soil erosion and sedimentation, in-stream habitats and biota, channel banks, riparian vegetation and habitat, hydrological regimes, channel structure, ecosystem dynamics, alien invasion, chemical pollution, noise and dust pollution, fire risks and littering, as well as employment creation. The entire development will be associated with positive socio-economic impacts including, amongst others, creation of jobs and availability of suitable infrastructure. The impacts identified for this development are anticipated to be of short or medium duration with high or medium confidence levels that they will occur. Numerous mitigation measures have been identified that would reduce the identified impacts. The mitigation measures are presented in Section E below. Overall, it can be said that the negative impacts of the construction phase, although negative, can be reduced to have a low or a low-medium significance. The negative impacts of the operational phase will, after implementation of mitigation or corrective actions, have a low or a low-medium negative effect on the environment.
Alternative B
As stated above, Alternative 2 was not assessed due to the current alignment with the R61 being on a dangerous curve, which would therefore not provide the residents in the area with safer access to their village.
Alternative C
No-go alternative (compulsory)
If the proposed activity is not to take place, none of the identified impacts will occur. However implementation of mitigation measures would reduce the significance and where possible prevent the

occurrence of impacts associated with the construction as well as the operation phases. The proposed access road and bridge will provide safer and all weather access across the river and thereby ensures pedestrian and vehicular safety.

SECTION E: RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	YES	NO

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment).

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application.

It is recommended that Site Alternative A and Bridge Design Alternative 2 be implemented.

Construction Phase

- The proper storage and handling of hazardous substances (hydrocarbons and chemicals) needs to be administered. Storage containers must be regularly inspected so as to prevent leaks.
- Construction materials liable to spillage are to be stored in appropriate structures (bunded areas) with impermeable flooring (e.g. cement).
- Washing and cleaning of equipment should also be done in berms or bunded areas.
- Storage of potentially hazardous materials (e.g. Fuel, oil, cement, bitumen, paint, etc.) should be outside of the 1:100 year flood line, or within a horizontal distance of 100m from a watercourse, or as specified by the Environmental Control Officer.
- Surface water draining off contaminated areas containing oil and petrol would need to be channelled towards a sump to separate these chemicals and oils. Alternatively, other appropriate contamination prevention measures should be put in place.
- Operation and storage of machinery and construction-related equipment must be done outside of the riparian zone where possible.
- Spillages should be cleaned up immediately and contaminants properly drained and disposed of using proper solid/hazardous waste facilities (not to be disposed of within the natural environment). Any contaminated soil from the construction site must be removed and rehabilitated timeously and appropriately.
- Any cement batching activities should occur outside of the delineated riparian zone. Cement batching boards should be used. Cement products/wash not to be disposed of into the natural environment.
- Ensure that suitable overnight facilities are provided for vehicles, away from any areas of channelled flow.
- Provide drip-trays beneath standing machinery/plant.
- Routinely check machinery/plant for oil or fuel leaks before construction begins.
- Sanitation – portable toilets (1 toilet per 15 to 30 users is the norm) to be provided where construction is occurring. Workers need to be encouraged to use these facilities and not the natural environment. Toilets should not be located within the 1:100 year flood line of a watercourse or closer than 100m or from any natural water bodies including rivers, streams and wetlands. Waste from chemical toilets should be disposed of regularly and in a responsible manner by a registered waste contractor.
- Provide waste bins and encourage workers not to litter or dispose of solid waste in the natural environment but to use available facilities for waste disposal.

- Clear and completely remove from site all general waste, constructional plant, equipment, surplus rock and other foreign materials once construction has been completed.
- All stockpiles must be protected from erosion, stored on flat areas where run-off will be minimised, and be surrounded by berms.
- No stockpiling should take place within a water course, including the riparian area.
- Mechanical plant and bowsers must not be refuelled or serviced within or directly adjacent to any river channel.
- It is suggested that all construction camps, lay down areas, batching plants and any stores should be located outside of the recommended minimum buffer widths as defined in the Eastern Cape Biodiversity Conservation Plan: Technical Report (Hayes *et al.*, 2007).
  - For crossing: *Mngazi River* this would be a distance of 50 m from the edge of the delineated riparian zone.
  - For crossing: *Mngazi River tributaries* this would be a distance of 32 m from the edge of the delineated riparian zone.
- Excavated material/sediments/spoil from the construction zone (including any foreign materials) should not be placed or stockpiled within the channel or riparian zone in order to reduce the possibility of material being washed downstream.
- For activities taking place within the channel it is suggested that coffer dams are built around the works area to trap any possible pollutants or sediments.
- Measures must be implemented to distribute storm water as evenly as possible to avoid point sources of erosion.
- Any erosion points created during construction should be filled and stabilized immediately.
- Install sediment barriers (e.g. silt fences, sandbags hay bales, filter berms, retaining walls and check dams) immediately downstream of any disturbed areas (e.g. where vegetation stripping is taking place) to trap any sediment generated during construction.
- Sediment traps should be regularly maintained and cleared so as to ensure effective drainage.
- Erosion control measures should be employed where required.
- Construction should proceed mainly during the dry, winter months in order to minimize soil erosion linked to high runoff rates.
- All disturbed construction areas should be suitably top-soiled and vegetated as soon as practically possible after construction, so as to stabilize erosion-prone areas.
- Access routes should be designed to limit their potential impact on the environment, bearing in mind steep banks and areas that are already showing reduced groundcover and erosion.
- Weather forecasts from the South African Weather Bureau should be monitored to avoid exposing soil or building works or materials during a storm event and appropriate action must be taken in advance to protect construction works should a storm event be forecasted.
- Water quality should be monitored for level of suspended solids at a point upstream and immediately downstream of the construction area, during construction and for a period after
- Limit activities wherever possible from taking place within the river channel, or for as short a time as possible where such activities are necessary.
- During construction, flows should be diverted around active in-channel work areas to ensure flow continues within the channel and to allow for continued ecological functioning of the downstream areas during construction. Under no circumstance should consideration be given to the excavation of an alternative channel or the damming of the stream in such a manner as to totally restrict the flow.
- Any abstraction of water for construction purposes must be approved by the Department of Water Affairs (DWA).
- For activities taking place within the channel it is suggested that coffer dams are built around

the works area to trap any possible pollutants or sediments

- Water diversion needs to be temporary. Re-directed flow must not be channelled towards stream banks which could cause erosion.
- Undertake work during low flow season to reduce the risk of high flow/flood-related impacts.
- Excavated material/sediments/spoil from the construction zone (including any foreign materials) should not be placed or stockpiled within the channel.
- Restrict unnecessary disturbance to in-channel areas and manage the removal of sediments/natural debris from channels.
- River sediments should not be permanently removed from the system.
- Construction should occur during the winter months when flows are low to limit the potential for erosion inked to high runoff rates.
- Necessary erosion protection works for unstable channel banks (e.g.: coarse rock pack, gabions) need to be constructed both at the abstraction site and along pipeline routes up the channel banks.
- No physical damage should be done to any aspects of the river channel and banks other than those necessary to complete the works as specified. Ensure that construction activities are carefully monitored to limit unnecessary impacts to the riparian zone.
- Re-instate indigenous vegetation (grasses and indigenous trees) disturbed as soon as practically possible once construction ceases so as to stabilise channel banks. Monitor re-vegetation to ensure channel banks are well covered and protected from erosion.
- Bank erosion should be monitored at regular intervals (e.g. at the onset of the rainy period) in order to assess whether further river bank
- Access routes should be designed to limit potential impact on the environment, bearing in mind steep banks and areas that are already showing reduced groundcover and erosion. A single access route along the channel bank should be considered to access the site – preferably utilising existing footpaths and tracks where areas have already been disturbed.
- Where necessary, structures should be installed to stabilise locally steepened channel banks/hill slopes.
- Soil required for construction purposes must not be derived from the river channel or banks.
- Any soil removed from the river banks/channel should be stockpiled and used in rehabilitation.
- Soils on the river floodplain above the banks that have been compacted must be loosened to an appropriate depth to allow seed germination to occur.
- Install protective works (e.g. gabions, reno-mattresses) to stabilise and protect unstable banks immediately upstream and downstream of site where bedrock ceases to protect the channel margins.
- It is advised that an ECO with a good understanding of the local flora be appoint during the construction phase.
- The construction zone should be clearly demarcated prior to the commencement of construction activities to ensure that construction vehicles do not unduly disturb riparian areas.
- Keep the clearing of vegetation in riparian areas to a minimum and attempt to ensure that clearing occurs in parallel with the construction progress where practically possible.
- Vegetation clearing should ideally be scheduled for the dry season.
- Road-bridge crossings must be designed to limit the physical area of riparian habitat impacted and should be aligned with degraded sections of the riparian zone where possible.
- Attempts must be made to restrict activities within the riparian zone by only accessing the channel using existing access roads.
- Site supervisors must ensure that impacts are confined to the construction zone. Prevent

vehicular and personnel access into undisturbed areas. Where possible, cut vegetation to ground-level rather than removing it completely, leaving root systems intact to ensure rapid re-colonization.

- No birds or any other animals may be trapped, hunted or handled in any way.
- Exotic trees and plants encountered should be removed from the site and properly disposed of.
- Rehabilitate disturbed areas as soon as practically possible with indigenous vegetation. A suitable replanting and re-vegetation programme is needed to rehabilitate the riparian zone post-construction. This should comprise a mix of rapidly germinating indigenous annual grass seeds to stabilise the surface layers with a mix of naturally occurring indigenous tree species for longer term stabilisation. These tree species should be those suited to the eco region and adapted to stabilising the banks and riparian margins.
- Where any works (e.g. erosion & storm water control measures) near a river is required, specific attention should be paid to the immediate re-vegetation of cleared areas to limit the potential for erosion and sedimentation.
- Where possible, local labour should be used for construction activities.
- Training programmes could be instated to facilitate skill transfer to local contractors and labourers.
- Vegetation clearing should ideally be scheduled for the dry season.
- Road-bridge crossings must be designed to limit the physical area of riparian habitat impacted and should be aligned with degraded sections of the riparian zone where possible.
- Attempts must be made to restrict activities within the riparian zone by only accessing the channel using existing access roads.
- Site supervisors must ensure that impacts are confined to the construction zone. Prevent vehicular and personnel access into undisturbed areas. Where possible, cut vegetation to ground-level rather than removing it completely, leaving root systems intact to ensure rapid re-colonization.
- No birds or any other animals may be trapped, hunted or handled in any way.
- Exotic trees and plants encountered should be removed from the site and properly disposed of.
- A detailed Traffic Management Plan should be compiled by a suitably qualified professional to ensure that traffic on the roads in the area is disrupted as little as possible.
- The traffic management plan should include measures for the optimisation of the amount of travel on the local roads, thereby reducing the impact on the local road infrastructure.
- The delivery of construction material and equipment should be limited to hours outside peak traffic times (including weekends) prevailing on the surrounding roads.
- Where obvious damage to the road infrastructure has occurred as a result of the project, repairs should be undertaken in accordance with the local municipality specifications and requirements.
- If during construction any possible finds are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.
- Any substantial fossil remains (e.g. vertebrates, petrified wood) encountered during excavation should be reported to SAHRA for possible mitigation by a professional palaeontologist.
- Increased vehicular activity and associated noise/light pollution will be extremely difficult to control.
- Ensure that any rest stops and associated structures are not situated adjacent to riverine habitats
- Mitigation of discovered sites will require a fence around the cemetery with a buffer of at least

10 meters and demarcation as a no-go area.
- Where graves and cemeteries are to be directly impacted by construction activities, it is recommended that the graves be relocated after a full grave relocation process that includes comprehensive social consultation.
- A suitably qualified grave relocation specialist should be appointed to facilitate the grave relocation process

Operation Phase
- The bridge crossings should not trap any run-off, thereby creating inundated areas, but allow for the free-flow movement of water.
- Storm water and any runoff generated by the hard surfaces should be discharged into energy dissipation structures prior to being discharged back into the natural water courses (such as retention ponds or areas with rock rip-rap grassed with indigenous vegetation to encourage the trapping of silt and attenuation of flows).
- Limit the physical footprint of the road and verges that would require clearing to a minimum.
- Bridge piers and associated works, should be designed in such a way so that they don't alter the extent of the natural flood lines for the watercourse.
- Construct any necessary erosion protection works where the bridge infrastructure intersects the channel banks of the river in order to prevent scouring or outer-bank erosion. Protection works to be considered include gabions, reno mattresses or other stabilising structures to armour them.
- The channel embankments must be rehabilitated to ensure both longitudinal and cross sectional stability against summer floods. Depending on the circumstances, this may necessitate stabilizing structures such as gabions or reno mattresses as well as careful attention to vegetation rehabilitation.
- The design of the bridge infrastructure needs to accommodate 1:100 year floods. Infrastructure located within the 1:100 year flood line will need to be designed and appropriately protected to be robust enough to withstand a 1:100 year flood.
- Pillars, columns or bridge buttresses should not be placed in in-stream or in riparian zones, if at all possible. If this is necessary, the number and width of pillars, vertical columns and buttresses placed within the river channel and floodplain should be minimised and all precautions should be taken to avoid excessive disturbance of the channel banks and reduce the risk erosion/increased sedimentation.
- Bridges must span the entire width of the channel and river floodplain so as to avoid disturbance to the riparian zones of rivers.
- Ensure that construction methods are according to the best-practice recommendations provided under the Impact above: *Disturbance of in-stream habitat and biota.*and impact on Invasion by weeds
- All areas disturbed by construction activities must be rehabilitated to their former state once construction activities have ceased and should be monitored afterwards to prevent disturbed areas from being colonised by exotic species and weeds.
- Re-vegetation of disturbed areas must use indigenous plants including locally-common indigenous grasses and trees/shrubs.
- Stockpiles containing mostly exotic or weed species should be covered for extended periods to inhibit seedling germination of these species.
- Implement an integrated alien weed control programme to ensure that alien plants are actively managed and eradicated from the site, with adequate follow-up measures to ensure the area remains weed-free. Remove and effectively treat any alien plants in the construction zone during the construction and operational phase. The dominant invasive species common

to the river sites have been documented in this report. These particular species need to be targeted for control and removal.
- Restrict and control the use of herbicides and other chemicals in the road reserve during maintenance.
- Runoff from the road surface should be dissipated before entering the watercourses and diffuse flow encouraged. Discharge through a vegetated buffer should be promoted where possible to trap contaminants.
- Ensure that any rest stops and associated structures are not situated adjacent to riverine habitats
- Ensure that vegetation in the road reserve is kept low (vertical height) by means of regular maintenance.
- Ensure that any rest stops and associated structures are not situated adjacent to riverine habitats.
- Provide waste bins in the vicinity of sensitive aquatic ecosystems to promote waste management. Regular clearing/maintenance of bins would be required.
- Ensure that any rest stops and associated structures are not situated adjacent to riverine habitats

Is an EMPr attached?	YES	NO

The EMPr must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

Mr GP Kriel

_____

NAME OF EAP

_____ __07 October 2013_____

SIGNATURE OF EAP DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information