

File Reference Number:	
Application Number:	
Date Received:	

(For official use only)	

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:

- 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.

BASIC ASSESSMENT REPORT

- 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

Project Proponent:

The South African National Roads Agency SOC Limited (SANRAL) is proposing to upgrade sections of the R72 road between Port Alfred and the Keiskamma River in the Eastern Cape Province.

Road Works:

The proposed project entails the upgrade of the R72, along Sections 3 (km 0 to km 27.5) and Section 3 (km 27.5) to Section 4 (km 9) of Trunk Road 045 between Port Alfred and the Keiskamma River. The project covers a distance of approximately 75km in total.

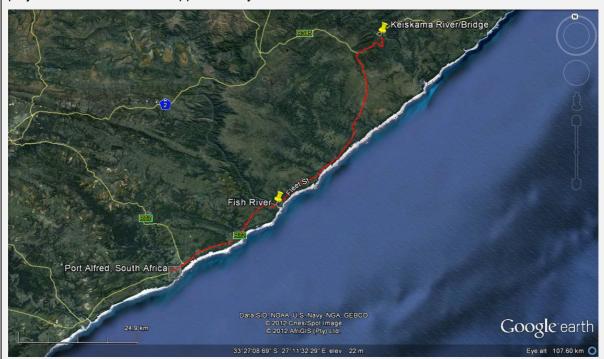


Figure 1: Layout map R72 from Port Alfred to Keiskamma River

The project has been split into two Environmental Impact Assessment (EIA) Processes.

- These are:
- Port Alfred to the Fish River and
- Fish River to the Keiskamma River.

The split is due to the following considerations:

- Length of road to be upgraded;
- Construction of the sections will be undertaken by different contractors;
- Timing of the upgrade. The Port Alfred to Fish River section will be undertaken before the Fish River to Keiskamma River section.

This Basic Assessment Report details the R72 upgrade from Port Alfred to the Fish River (i.e. the first of the two sections mentioned).

The upgrading will include the following:

- The strengthening of the existing pavement;
- The widening of the road cross section for climbing lanes;
- Vertical and horizontal geometric improvements;
- Rehabilitation / reconstruction of major drainage structures, bridges and intersections;
- The provision of pedestrian walkways in areas to be identified; and
- Sourcing of borrow materials for the upgrading of the road surface.

The existing surfaced width of the road is on average 7m with 2.5m gravel shoulders. The existing road reserve is approximately 30 metres in extent and it will be widened in areas to the standard 50m width. This will exclude residential areas such as the Port Alfred CBD and Kleinemonde.. Additional passing lanes will be provided at strategic places along the route, the width of which will be approximately 3.7m.

Locality of the project:

The proposed project is located in the Eastern Cape Province and falls within the jurisdiction of the Cacadu District Municipality and a small section within the Amathole District Municipality. Local authorities are the Ndlambe Local Municipality and the Ngqushwa Local Municipality.

Motivation and Need for the project:

SANRAL is mandated to strategically plan, design, construct, operate, rehabilitate and maintain South Africa's National Road network. The need to upgrade the R72 has been identified to accommodate the additional and increasing traffic volumes and to enhance road safety by providing additional lanes in strategic areas.

The R72 is a primary transport corridor between East London, Port Alfred and Port Elizabeth. Large volumes of vehicles and trucks utilise this road on a daily basis and the condition of the road has consequently deteriorated over the last 10 years. The road is currently in a poor condition and will continue to deteriorate should the upgrade not be undertaken.

Comments received from surrounding communities and stakeholders have welcomed the upgrade of the road. There are a large number of trucks which use this road and an upgrade will be a positive improvement to the surrounding residents. Well maintained roads are also important for economic activities such as transportation of goods and tourism opportunities.

Borrow Areas:

Proposed borrow areas and quarries for the project are shown in Figure 2 below.

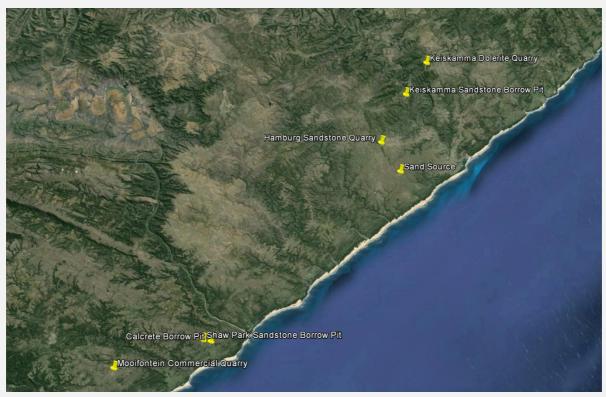


Figure 2: Proposed Borrow areas and Quarries

Relevant Environmental-linked Legislation:

National Environmental Management Act (Act No. 107 of 1998) (as amended)

The National Environmental Management Act, 1998 (Act No. 107 of 1998) [NEMA] and the Environmental Impact Assessment Regulations (GN R 543 – 546, 18 June 2010) published there under, set out a set of schedules of listed activities that may not be undertaken without Environmental Authorisation from a competent authority. The Basic Assessment process is prescribed by the EIA Regulations (2010) as a pre-requisite to obtaining a decision from the Department of Environmental Affairs (DEA) in terms of the NEMA for the listed activities applied for. The relevant listed activities are detailed below.

Minerals and Petroleum Resources Development Act (Act No. 28 of 2002)

The permitting of the material sources required for the project will have to be undertaken in accordance with the Minerals and Petroleum Resources Development Act (Act No. 28 of 2002) [MPRDA]. According to Section 106 (1) of the MPRDA, the SANRAL is exempted from lodging a prospecting and mining right application, obtaining permission for the removal and disposal of minerals, and, application for mining permit. Section 106(2) of MPRDA, states that the organ of the state may however submit a mining-specific Environmental Management Programme (EMPR) for approval in terms of section 39(4).

National Water Act (Act No 36 of 1998)

The upgrade of culverts will have an impact on the bed, banks, course and characteristics of watercourses/drainage lines during the construction and operational phases of the proposed project and a Water Use Licence (WUL) or General Authorisation (GA) from the Department of Water Affairs (DWA) is therefore required.

A Water Use License Application (WULA) and/or General Authorisation is a legislative process governed by the DWA for the authorisation of all water uses defined in section 21 of the National Water Act (Act No. 36 of 1998) [NWA].

Section 21 Water Uses to be applied for are:

- Section 21 (c): Impeding and diverting the flow of water in a watercourse; and
- Section 21 (i): Altering the bed, banks, course or characteristics of a watercourse.

The following legislation has also been taken into consideration for this project:

- National Heritage Resources Act (Act No. 25 of 1999) [NHRA];
- National Environmental Management: Biodiversity Act (Act No. 10 of 2004) [NEM: BA]
- National Environmental Management: Air Quality Act (Act No. 39 of 2004) [NEM:AQA]

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
Francis from Decis Assessment Translater	
Example from Basic Assessment Template: GN R.544 Item 11(3): The construction of a bridge	A bridge measuring 5 m in beight and 10m
where such construction occurs within a	A bridge measuring 5 m in height and 10m in length, no wider than 8 meters will be
watercourse or within 32 metres of a watercourse,	built over the Orange river
measured from the edge of a watercourse,	built over the Grange river
excluding where such construction will occur	
behind the development setback line.	
Listing Notice 1 (GNR. 544, June 2010)	
GN R544 Item 11:	A number of culverts along the route will
The construction of	require upgrading / extending or replacement
(iii) bridges;	of the culvert (10 culverts).
(vi) bulk stormwater outlet structures	,
(xi) infrastructure or structures covering 50 square	Infrastructure or structures linked to the
metres or more.	existing road infrastructure, but not directly to
where such construction occurs within a water course	the bridges or stormwater control
or within 32 metres of a water course, measures from	mechanisms may need to be increased in
the edge of a watercourse, excluding where such	footprint.
construction will occur behind the development	
setback line.	
GN R544 Item 18:	A number of culverts along the route will
The infilling or depositing of any material of more than	require upgrading / extending or replacement
5 cubic metres into, or the dredging, excavation,	of the culvert. (10 culverts)
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;	
(ii) or occurs behind the development setback line.	
GN R544 Item 39:	A number of culverts along the route will
The expansion of	require upgrading / extending or replacement
(v) bulk stormwater outlet structures	of the culvert. (10 culverts)
within a watercourse or within 32 metres of a	
watercourse, measured from the edge of a	
watercourse, where such expansion will result in an	
increased development footprint but excluding where	
such expansion will occur behind the development	

Listed activity as described in GN R.544, 545 and 546	Description of project activity
setback line.	Description of project activity
	Dood will be widened to strengther the
GN R544 Item 47: The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre (i) where the existing road reserve is wider than 13.5 metres; or (ii) where no road reserve exists, where the existing road is wider than 8 metres – excluding widening or lengthening occurring inside	Road will be widened to strengthen the existing pavement and widening of the cross section for additional climbing lanes.
urban areas.	
Listing Notice 3 (GNR. 546, June 2010)	
GN R546 Item 10: The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres (a) In Eastern Cape Province: (ii) Outside urban areas, in: (cc) 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) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans	Certain areas of the road fall within critical biodiversity areas. The road train consists of containers of hazardous substances which in total are expected to exceed the threshold of 30m³.
GN R546 Item 12: The clearance of an area of 300 square metres or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation. (b) within critical biodiversity areas identified in bioregional plans	It is possible that an area in excess of 300m ² may need to be cleared.
GN R546 Item 13: The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation, except where such removal of vegetation is required for: (1) the undertaking of a process or activity included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act (No. 59 of 2008) in which case the activity is regarded to be excluded from this list (2) the undertaking of a linear activity falling below the thresholds mentioned in Listing Notice 1 in terms of GN R 544 of 2010. (c) In Eastern Cape Province ii. Outside urban areas, the following:	Certain areas of the road fall within critical biodiversity areas and sensitive areas.

Listed activity as described in GN R.544, 545 and 546	Description of project activity
(cc) Sensitive areas as identified in an environmental	
management framework as contemplated in	
chapter 5 of the Act and as adopted by the	
competent authority.	
GN R546 Item 14:	Certain areas of the road fall within critical
The clearance of an area of 5 hectares or more of	biodiversity areas and sensitive areas.
vegetation where 75% or more of the vegetative cover	
constitutes indigenous vegetation, except where such	
removal of vegetation is required for:	
(1) Purposes of agriculture or afforestation	
(2)The undertaking of a process or activity included in	
the list of waste management activities published	
in terms of section 19 of the National	
Environmental Management: Waste Act (No. 59	
of 2008) in which case the activity is regarded to	
be excluded from this list	
(3) The undertaking of a linear activity falling below	
the thresholds in Notice 544 of 2010.	
(a) In Eastern Cape	
i All areas outside urban areas	
GN R546 Item 19:	Certain areas of the road fall within critical
The widening of a road by more than 4 metres, or the	biodiversity areas and sensitive areas.
lengthening of a road by more than 1 kilometre.	
(a) In Eastern Cape Province:	
(ii) Outside urban areas, in:	
(cc) 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) Critical biodiversity areas as identified in systematic biodiversity plans adopted by	
competent authority or in bioregional plans	

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.

<u>Site/Route Alternatives</u>: The R72 is a primary transport corridor between Port Elizabeth and East London. The R72 provides the shortest distance between these two major towns. The road is an existing road and site/route alternatives could therefore not be considered for this project, as the alternative would involve the construction of a new road which would have far more significant negative environmental impacts.

Layout Alternatives: Layout options considered include:

- · the width of the additional climbing lanes, and
- where widening of the road would be undertaken.

These alternatives are limited by the available space within the road reserve, existing infrastructure along the route and the budget available for SANRAL to undertake the upgrade of the R72.

The widening will therefore be undertaken where sufficient space exists within the road reserve to add additional climbing lanes and to strengthen the pavements, while working within the available budget which has been allocated for the upgrade of this road.

<u>Technology Alternatives</u>: assessed the two primary surface mediums available for re-surfacing of roads, namely Bitumen and Asphalt. Bitumen is the preferred surface medium for this project, as the distance to the nearest asphalt plant makes this option financially not viable.

a) Site alternatives

Alternative 1 (preferred alternative)			
Description	Lat (DDMMSS)	Long (DDMMSS)	
	Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)	
	Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)	

In the case of linear activities:

Alternative:

Alternative S1 (preferred)

- Starting point of the activity (Port Alfred)
- Middle/Additional point of the activity
- End point of the activity (Fish River)

Alternative S2 (if any)

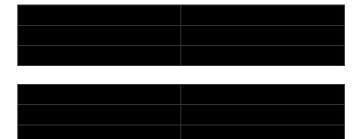
- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

Alternative S3 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

Latitude (S):	Longitude	(E):
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33° 35′ 34″ S	26° 53′ 34″ E
33° 32' 56.5" S	27° 01' 20.6" E
33° 29' 0.8" S	27° 07' 54.7" E



The project is for the upgrade of an existing road, no site/route alternatives can therefore be considered. The alternative would be constructing a new road which would have more significant negative environmental impacts.

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.

Please see co-ordinates of the route attached in Appendix J

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)	

The road is an existing road and layout options were limited by the available space within the road reserve and surrounding existing infrastructure.

c) Technology alternatives

Alternative 1 (preferred alternative)			
Bitumen is the preferred surface medium to be used during the construction phase			
Alternative 2			
Asphalt was investigated as a possible alternative, but due to the distance from the nearest asphalt			

production facility this is not a feasible alternative.

Alternative 3

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

Alternative 1 (preferred alternative)		
	Alternative 2	
	Alternative 3	
	Alternative 3	

e) No-go alternative

The no-go alternative means that the proposed project will not be undertaken. The R72 will therefore not be upgraded and the condition of the road will continue to deteriorate. The road is utilised by a large volume of traffic, including trucks, the road surface will continue to disintegrate and need to be repaired in certain areas. The volume of traffic necessitates additional climbing lanes, which will not be implemented. Cars travelling on the road will continue to travel on a road which is in need of repair.

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

- 3. PHYSICAL SIZE OF THE ACTIVITY
- Indicate the physical size of the preferred activity/technology as well as alternative a) activities/technologies (footprints):

Size of the activity: Alternative:

Alternative A1¹ (preferred activity alternative) Alternative A2 (if any)

Alternative A3 (if any)

 m^2 m^2 m^2

or, for linear activities:

Alternative: Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Length of the activity: ~27.5km (27500m) N/A N/A

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

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Size of the site/servitude:

~1 375 000m²

N/A

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

Alternative A3 (if any)

4. SITE ACCESS

Does ready access to the site exist?

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



Describe the type of access road planned:

N/A

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

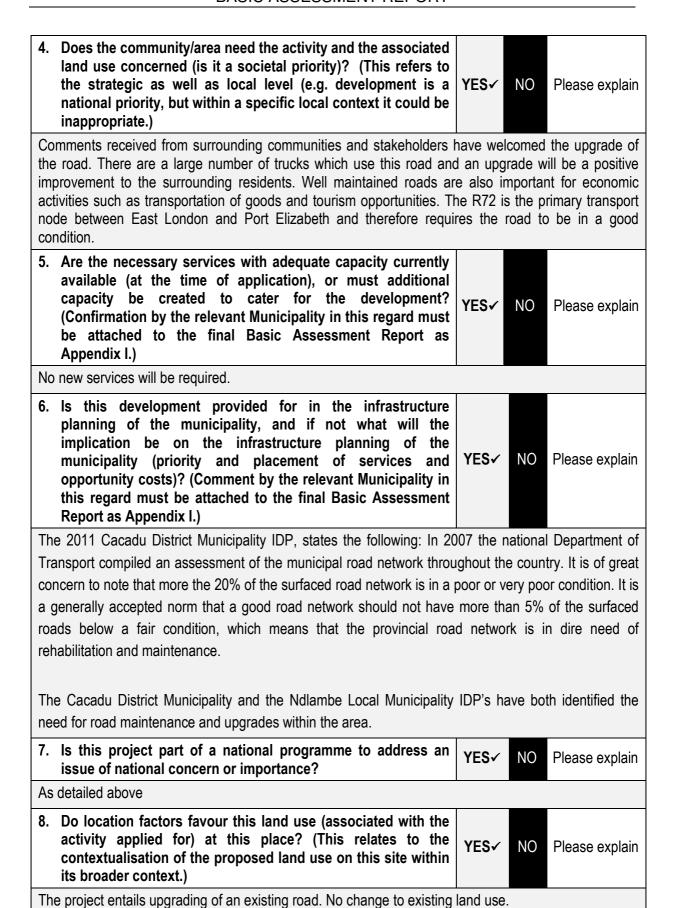
A detailed illustration of the activity must be provided at a scale of at least 1:200 as **Appendix C** for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

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
The project is for the upgrade of an existing road and will take place within the road servitude.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES✓	NO	Please explain
SANRAL has a mandate to maintain and upgrade the road networks, which is in line with the Provincial Spatial Development Framework			

Please explain YES✓ NO (b) Urban edge / Edge of Built environment for the area The road upgrade will provide better and safer travelling conditions for vehicles using the R72. Development Plan (IDP) and (c) Integrated Spatial Development Framework (SDF) of the Local Municipality YES✓ (e.g. would the approval of this application compromise NO Please explain the integrity of the existing approved and credible municipal IDP and SDF?). The project is in line with the Ndlambe Local Municipality IDP as well as the Cacadu District Municipality IDP. The Ndlambe Local Municipality IDP (2007-2011) indicates that budget constraints prevented upgrade and maintenance of roads, leading to the deterioration of roads without municipal budget to rectify the damages. This led to a public outcry for the municipality to develop a strategy. Roads play an important role in the economic activities within Ndlambe Municipality and the upgrade of roads requires urgent attention. In addition, Ndlambe is the Municipality that has been most affected by floods in the District during 2005/2006, resulting in damages to roads and increased damage to households due to insufficient storm water systems. (d) Approved Structure Plan of the Municipality YES**✓** NO Please explain As detailed above. **Environmental Management Framework** (e) An adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing YES✓ NO Please explain environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?) The project is not inconsistent with the Cannon Rocks to Kei River Mouth EMF. Any other Plans (e.g. Guide Plan) YES**✓** NO Please explain The project will serve to improve the R72 thereby providing better and safer travelling conditions for vehicles and trucks using the road. It will not negatively impact on other plans for the area. 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 YES✓ NO Please explain authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)? Both the Local and District Municipalities have identified upgrade and maintenance of roads as a priority within the district. The Ndlambe Local Municipality IDP (2012-2017) identifies the upgrade of the R72 as a planned project within the area.



9. Is the development the best practicable environmental option YES✓ NO Please explain for this land/site? The upgrading of the R72 will not involve changes to land use or current activities on the land. It is therefore the best environmental option for this land. 10. Will the benefits of the proposed land use/development YES✓ NO Please explain outweigh the negative impacts of it? The proposed upgrade will improve the condition of the road's surface and provide additional passing lanes which will provide safer driving conditions. These passing lanes will lead to the occasional widening of the road servitude that has been noted as being required. The R72 is an important route for people and trucks travelling between Port Alfred and East London and the upgrade is therefore of strategic importance for economic activities within this area. 11. Will the proposed land use/development set a precedent for YES NO✓ Please explain similar activities in the area (local municipality)? No precedent will be set. The road is an existing road. 12. Will any person's rights be negatively affected by the YES NO√ Please explain proposed activity/ies? No person's rights will be negatively affected. 13. Will the proposed activity/ies compromise the "urban edge" YES NO. Please explain as defined by the local municipality? The proposed upgrade of the R72 will not compromise the urban edge. The R72 is an existing road and is a transport node between East London and Port Elizabeth. Upgrade of the road will not impact on the urban edge. 14. Will the proposed activity/ies contribute to any of the 17 YES✓ NO Please explain Strategic Integrated Projects (SIPS)? The road maintenance programme, which is an extension of SIPP 6: Integrated Municipal Infrastructure Programme. SIP 6 aims 'to develop a national capacity to assist the 23 least resourced districts (17 million people) to address all the maintenance backlogs and upgrades required in water, electricity and sanitation bulk infrastructure. The road maintenance programme will enhance service delivery capacity thereby impact positively on the population.' 15. What will the benefits be to society in general and to the local Please explain communities? The proposed upgrade of the R72 will benefit the community by creating better and safer travelling conditions for vehicles and trucks which use the road. 16. Any other need and desirability considerations related to the proposed Please explain activity? The R72 is an important route for people and trucks travelling between Port Elizabeth and East London and the upgrade is therefore of strategic importance for economic activities within this area.

BASIC ASSESSMENT REPORT

17. How does the project fit into the National Development Plan for 2030? Please explain The project is consistent with the NDP in terms of economic infrastructure and the vision for the transport industry.

18. Please describe how the general objectives of Integrated Environmental Management (IEM) as set out in section 23 of NEMA have been taken into account.

The following table describes how the objectives of IEM have been taken into account:

	ollowing table describes now the objectives of	TEM have been taken into account.					
The	The general objectives of IEM is to:						
(a)	Promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment;	Alignment with NEMA principles described below (See Section 19 assessment below).					
(b)	Identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage. The risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impacts, maximising benefits and promoting compliance with the principles of environmental management set out in section 2;	Implicit in the current Basic Environmental Assessment process. Environmental and Socio-economic impacts have been identified in Section D: Impact Assessment. Mitigation measures for minimising negative impacts and enhancing positive impacts are detailed in the Environmental Management Programme (EMPr)					
(c)	Ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them;	Implicit in the current Basic Environmental Assessment process. The effect of the proposed project on the environment is detailed in the Impact Assessment section, which identifies potential impacts and ranks their significance before and after mitigation measures are implemented.					
(d)	Ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment;	The Basic Assessment Process has included a comprehensive PP process, including: Posters along the route Newspaper adverts Background Information Documents Engagement with stakeholders Public meeting Comments and response report as part of final BAR					
(e)	Ensure the consideration of environmental attributes in management and decision-making which may have a significant effect on the environment; and	Comprehensive Impact Assessment undertaken as part of BAR					
(f)Identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2.		Refer to Section 19 below which details how the principles of environmental management have been taken into account.					

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.

The following table describes how the principles of environmental management have been taken into account:

account:					
NEMA Principle as	per Section 2	Alignment of project with Principle			
throughout the	set out in this section apply Republic to the actions of state that may significantly conment and-				
and relevant c State's respon promote and fu rights in Chapt in particular the	ngside all other appropriate onsiderations, including the sibility to respect, protect, affil the social and economic er 2 of the Constitution and e basic needs of categories disadvantaged by unfair	The principles of NEMA have been taken into account during the undertaking of the Basic Assessment Process. The environmental reporting process has been undertaken in order to provide the relevant decision-makers with the required information for them to make an informed decision regarding the			
which environ	general framework within mental management and plans must be formulated.	project.			
any organ of function when	lines by reference to which state must exercise any taking any decision in terms or any statutory provision he protection of the				
	oles by reference to which a ointed under this Act must endations;				
implementation	oretation, administration and of this Act, and any other with the protection of the				
people and the it's concern a psychological,	eir needs at the forefront of and serve their physical, developmental, cultural and	The proposed project will not result in any undue or unacceptable impacts to the local socio-economic environment.			
social interests	equitably	Mitigation and management measures in the EMPr must be adopted.			
(3) Development environmentally sustainable.	must be socially,	The project is an upgrade of an existing road and will not result in unacceptable social, environmental of economic impacts.			
consideration including the fo	llowing:	Disturbance to local ecosystems will be avoided where possible and impacts must be mitigated.			
` '	rbance of ecosystems and cal diversity are avoided or,	Ecological Assessment has been undertaken and			

where they cannot be altogether avoided, are minimised and remedied:

- (ii) that pollution and degradation of the environment are avoided or, where they cannot be altogether avoided, are minimised and remedied:
- (iii) that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied:
- (iv) that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;
- (v) that the use and exploitation of nonrenewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
- (vi) that the development use and exploitation of renewable resources and the ecosystems of which they are a part do not exceed the level beyond which their integrity is jeopardised;
- (vii) that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and
- (viii) that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented are minimised and remedied.

(b) Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.

(c) Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged

recommendations must be adopted.

Pollution and degradation impacts are included in the Environmental Management Programme. Impacts are temporary and only during the construction phase of the project.

Heritage Impact Assessment has been undertaken. Recommendations made in the report must be adopted.

Waste impacts are included in the Environmental Management Programme. Impacts are temporary and only during the construction phase of the project.

Not applicable. No non-renewable resources will be exploited.

The project will not exploit renewable resources.

The precautionary principle and assessment of environmental risks are inherent in the Basic Assessment process. Impacts will be assessed as part of the impact assessment process.

The Basic Assessment process assesses impacts and provides recommendations to prevent or remedy such impacts.

These issues are addressed as part of the Basic Assessment process and relevant mitigation measures must be effectively implemented.

The proposed project in aligned with the local municipality IDP and will not result in the unfair distribution of impacts.

	persons.	
(d)	Equitable access to environmental resources, benefits and services to meet the basic human needs and ensure human well- being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.	The upgrade of the road will be advantageous for all road users.
(e)	Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.	The Environmental Management Programme will take these into account during all phases of the project.
(f)	The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.	The Basic Assessment report includes a public consultation process.
(g)	Decisions must take into account the interests, needs and values of all interested and affected parties and this includes recognising all forms of knowledge, including traditional and ordinary knowledge	As above.
(h)	Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.	This will be done where possible and where required during the construction phase of the proposed project.
(i)	The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated and decisions must be appropriate in the light of such consideration and assessment	The Basic Assessment report includes these requirements in order to provide the relevant decision makers with the required information.
(j)	The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.	The project proponent is committed to respecting the rights of workers in terms of both labour laws and environmental rights.
(k)	Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law	The Basic Assessment Report will be available for public review in accordance with the law.

(1)	There must be intergovernmental co- operation and harmonisation of policies, legislation and actions relating to the environment	Not applicable
(m)	Actual or potential co-ordination and harmonisation of policies, legislation and actions relating to the environment	Not applicable
(n)	Global and international responsibilities relating to the environment must be discharged in the national interest	Not applicable
(0)	The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage	These principles are taken into consideration and the proposed project aims to benefit the public without undue environmental impacts.
(p)	The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment	The project proponent accepts that it will be held responsible for any impacts that result from negligent actions. This is generally provided as a legally binding condition of the environmental authorisation.
(q)	The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted	Women and youth are not excluded from the process in any way.
(r)	Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure	Any sensitive environments will be assessed and management measures included in the Environmental Management Programme.

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
National Environmental	The activity triggers activities	Department of	1998
Management Act (No. 107 of	listed in NEMA GN R544 and	Environmental Affairs	
1998)	546	(DEA)	

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
National Environmental Management: Biodiversity Act (No. 10 of 2004)	The developer must be mindful of the principles, broad liability and implications of causing damage to the environment	Department of Environmental Affairs (DEA)	2004
National Water Act (No. 36 of 1998)	Extension of some culverts along the route	Department of Water Affairs (DWA)	1998
Eastern Cape Biodiversity Conservation Plan	Certain sections of the route are located in CBAs	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)	
National Heritage Resources Act (No. 25 of 1999)	SAHRA and ECPHRA need to be informed of the project and EIA process. A Heritage impact assessment must be undertaken.	South African National Heritage Resources Agency	1999
Mineral and Petroleum Resources Development Act (No. 28 of 2002)	The sourcing of aggregates and borrow material will necessitate an EMP to the DMR	Department of Mineral Resources	2002
Constitution Act (No. 108 of 1996)	Obligation to ensure that the proposed development will not result in pollution and ecological degradation; and Obligation to ensure that the proposed development is ecologically sustainable while demonstrating economic and social development	Constitutional Assembly	1996
Occupational Health and Safety Act (No. 85 of 1993)	To provide for the health and safety of persons in connection with the use of plant and machinery; The protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work	Department of Labour	1993

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

If YES, what estimated quantity will be produced per month?



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

Construction waste will be removed from site by a contractor.

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

Construction waste will be disposed of at the nearest registered landfill site. The nearest site is the Port Alfred landfill site.

Will the activity produce solid waste during its operational phase? If YES, what estimated quantity will be produced per month? How will the solid waste be disposed of (describe)?



N/A

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

N/A

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 NOV

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?

If YES, what estimated quantity will be produced per month?

Will the activity produce any effluent that will be treated and/or disposed of on site?

YES NO√

M³

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, provide 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:

N/A

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?



If YES, is it controlled by any legislation of any sphere of government?

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:

The force of wheels of vehicles travelling on unpaved roadways or road shoulders causes the pulverisation of the surface material. Particles are lifted and dropped from the rotating wheels and the road surface is exposed to strong air currents in turbulent shear with the surface. The turbulent wake behind the vehicle continues to act on the road surface after the vehicle has passed. The quantity of dust emissions from unpaved roads and road shoulders varies linearly with the volume of traffic as well as the speed of the vehicles.

The primary source of emissions therefore will be due to vehicle entrained dust from any unpaved road surfaces and vehicles travelling on the road shoulders during the construction phase. Management measures to minimise vehicle entrained dust and exhaust emissions will be addressed in the EMPr.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?



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?

If YES, is it controlled by any legislation of any sphere of government?



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 be generated during the construction phase, but will be limited to day-time working hours (07:00 to 17:00) and for a limited duration (while construction activities are being undertaken within a certain area). Mitigation and management of noise will be addressed in the EMPr. In this regard, compliance with SANS 10103 will be required

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
	e extracted from g please indicate th			•	Estimated at approximately 100 000 litres (100 kilo-litres)
	y require a water n the Department			isation or water	Currently Unknown (for water that will be required for the construction activities)

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

The contractor will be responsible for any required authorisations for water use during the construction phase of the project. It is currently unknown what method the contractor will use to supply the required water for construction.

14. ENERGY EFFICIENCY

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

N/A

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

N/A

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):

The route has been split into 2 sections (Section A is from the town of Port Alfred to the East Kleinemonde River approximately 15km in length) to more accurately describe the area and surrounding environment. (See attached Google Earth Image in Appendix A. Section A is indicated in Red while Section B is indicated in Purple.)

- 2. Paragraphs 1 6 below have been completed twice for each of the two sections.
- 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
District	Cacadu District Municipality
Municipality	
Local Municipality	Ndlambe Local Municipality
Ward Number(s)	6 and 10
Farm name and	See attached list of farms
number	
Portion number	As above
SG Code	As above

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:

Road Reserve

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:

, atomativo	J 1.					
Flat ✓	1:50 –	1:20 –	1:15 –	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than
	1:20✓	1:15✓	1:10✓			1:5
Alternative S	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 S	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

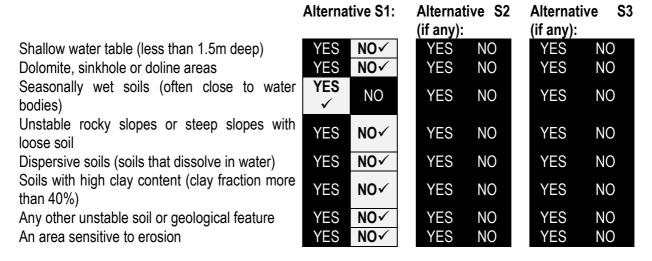
2. LOCATION IN LANDSCAPE

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

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

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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



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).

Groundcover within the Road Reserve is primarily gravel for the road shoulder and grass species. Outside of the Road Reserve, the following is found:

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?

The road crosses a number of watercourses including the Riet, Rufane, West and East Kleindemonde Rivers. The road is an existing road and therefore no wetlands are found directly within the road reserve. The main wetland types associated with the R72 are depressions (such as pans) and unchannelled valley-bottom wetlands. (Information extracted from Ecological Specialist Report)

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.

Wetland areas on the Rufane River and Riet River are classified as NFEPA wetland clusters. These wetlands are primarily pans and unchannelled valley bottom wetlands. The West and East Kleindmonde Rivers are classified as part of a NFEPA wetland cluster (estuarine). Wetland clusters are groups of wetlands within 1 km of each other and embedded in a relatively natural landscape. (Ecological Specialist Report Sections 2.4 and 2.5)

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	Harbour	Graveyard
base/station/compound	Tarbour	Graveyaru
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?

N/A

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:

N/A

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:

N/A

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.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

4. 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):

The route has been split into 2 sections (Section B is from the East Kleinemonde River to the Fish River approximately 11km in length) to more accurately describe the area and surrounding environment.

- 5. Paragraphs 1 6 below must be completed for each alternative.
- 6. Has a specialist been consulted to assist with the completion of this section?

 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			
District	Cacadu District Municipality and Amathole District			
Municipality	Municipality (very small section)			
Local Municipality	Ndlambe Local Municipality and Ngqusha Local			
	Municipality (very small section)			
Ward Number(s)	6 and 10			
Farm name and	See attached list of farms			
number				
Portion number	As above			
SG Code	As above			

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:

Road Reserve

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√

7. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Aiternativ	C O 1.					
Flat	1:50 –	1:20 –	1:15 –	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than
	1:20✓	1:15✓	1:10✓			1:5
Alternative	e 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	e 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

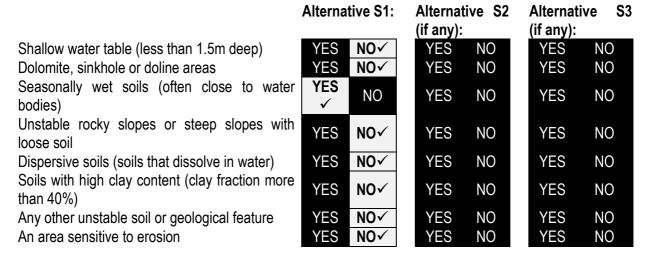
8. LOCATION IN LANDSCAPE

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

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

9. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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



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.

10. 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).

Groundcover within the Road Reserve is primarily gravel for the road shoulder and grass species. Outside of the Road Reserve, the following is found:

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.

11. SURFACE WATER

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

The road crosses a number of watercourses including the Kap River, Fish River and some unnamed water bodies. The road is an existing road and therefore no wetlands are found directly within the road reserve. The main wetland types associated with the R72 are depressions (such as pans) and unchannelled valley-bottom There are some wetlands in the surrounding areas (+-100m or more outside of the road reserve). (Information extracted from the Ecological Specialist Report).

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.

Watercourses traversed by the road include the Kap River, Fish River and two unnamed watercourses. Wetland clusters, primarily in the form of depressions are found in proximity to points 14, 15 and 16 of the Ecological Specialist Report Sensitive/Noteworthy Areas. (Section 2.5 of Ecological Report). Wetland clusters are groups of wetlands within 1 km of each other and embedded in a relatively natural landscape. The Fish River is also classified as a NFEPA wetland cluster and estuarine floodplain.

12. 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	Harbour	Graveyard
base/station/compound		Graveyara
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?

N/A

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:

N/A

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:

N/A

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.

13. 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:



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:

A phase 1 Archaeological Impact Assessment was undertaken (See report attached in Appendix D). No archaeological or cultural heritage resources were recorded. The specialist does however indicate that from the literature review, it is evident that the area is of high cultural significance with numerous resources recorded previously. There is a high probability of finding/exposing heritage and paleontological resources during the construction phase.

Will any building or structure older than 60 years be affected in any way? Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

YES	NO✓
YES	NO✓

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

14. 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:

The 2001 Census distinguishes between economically active people searching for work and those not looking for work. The statistics suggest that a total of 20 724 people are economically active of which 8 493 are looking for work. The Spatial Development Framework reflects a total number of 12 214 unemployed persons.

The municipality there has high levels of unemployment (approximately 35%).

Economic profile of local municipality:

The Ndlambe Municipality falls within the Cacadu District Municipality. The Municipality is bordered by the Makana Local Municipality, The Sunday's River Valley Municipality to the west.

The Ndlambe Municipality falls within the Cacadu District Municipality area, Eastern Cape Province. The Ndlambe Municipal area is bordered by the Makana Local Municipality to the north. The Sunday's River Valley Municipality to the West and the Ngqushwa Municipality to the east. The Municipality consists of 9 wards with a population of approximately 60 000 people.

The Municipality has shown a population growth of 2.9% from 1996 to 2001, which is the second

highest growth rate in the district. The Municipality also shows the second highest population density of 16.63 people per m² in the Cacadu District.

According to 2001 Census data the following access to basic services exist:

It was estimated that 24% of households did not have access to water within 200m of their dwelling. A large housing project in 2005/6 would have improved this number although detailed information is currently not available. Approximately 65% of households have septic tanks or conservancy tank, where approximately 35% have access to flush toilets. According to the 2001 census 67% of households had access to electricity, while the rest relied on alternative fuel sources such as paraffin.

A large proportion of the migration pattern seen in the Municipality is due to an influx of holiday makers during the peak seasons (up to 33 000). This equates to approximately 50% of the permanent resident population. This influx places significant pressure on local infrastructure.

Port Alfred is also subject to migration pressure relating to rural and farm workers moving into the more urbanised centres seeking better job opportunities. This places increasing pressure on housing and service delivery as well as hampering municipal efforts to eradicate informal settlements.

Level of education:

According to the Ndlambe Local Municipality IDP 2011/2012, the area has a functional literacy of 54%. Only 12% of the population has no formal education, so education levels within the area are fairly high.

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

What is the expected yearly income that will be generated by or as a result of the activity?

Will the activity contribute to service infrastructure?

Is the activity a public amenity?

How many new employment opportunities will be created in the development and construction phase of the activity/ies?

What is the expected value of the employment opportunities during the development and construction phase?

What percentage of this will accrue to previously disadvantaged individuals?

How many permanent new employment opportunities will be created during the operational phase of the activity?

What is the expected current value of the employment opportunities during the first 10 years?

What percentage of this will accrue to previously disadvantaged individuals?



15. 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)	Although the road reserve has no natural area remaining, the existing road does traverse numerous areas which fall within the CBA 1 and 2 classes for both terrestrial and aquatic ecosystems.

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	%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	%	
Degraded (includes areas heavily invaded by alien plants)	%	
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	100%	The existing road reserve is completely transformed.

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	Critical Endangered Vulnerable	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats,	Estuary	Coastline	

Terrestrial Ecos	Aquatic Ecosystems							
Environmental Management: Least		seeps pans, and artificial wetlands)						
Biodiversity Act (Act No. 10 of 2004)	Threatened 🗸	YES✓	NO	UNSURE	YES✓	NO	YES	NO✓

Physical Environment

Climate:

The Port Alfred area falls within the temperate climate with an annual rainfall of approximately 520mm. Rainfall occurs throughout the year with the highest rainfall in October (57mm) and the lowest rainfall (33mm) in January. The average midday temperatures range from 20°C in July to 26°C in February. The region is the coldest in July when the temperature drops to minimum temperatures of approximately 7 or 8°C.

Topography:

The topography of the area is generally flat with undulating hills. The road is within a few kilometres of the coastline and there are no sharp inclines or mountainous areas. The road traverses a number of rivers where the gradient generally declines slightly.

Vegetation:

The assessed area traverses several vegetation types. Albany Coastal Belt (predominantly), Albany Dune Strandveld and Cape Estuarine Salt Marshes (associated with Cape Coastal Lagoons) (Ecological Specialist Report Section 2.2 from Mucina & Rutherford, 2006).

Albany Coastal Belt and Albany Dune Strandveld occur in the Eastern Cape Province from the Kei to the Sundays Rivers. Albany Coastal Belt is dominated by short grasslands, scattered bush clumps and many valleys. Grasslands are however mostly secondary and a result of bush clearing for grazing by livestock. Albany Dune Strandveld is characterised by dense shrub thickets and the occurrence of bulbous geophytes and succulent herbs. Cape Estuarine Salt Marshes are associated with the Kowie River at Port Alfred and the Great Fish River.

An approximate 2km stretch of Albany Dune Strandveld vegetation is found along the R72 from Port Alfred to the Rufane River. Indigenous and sensitive riparian vegetation is associated with the rivers which traverse the R72. These include the Rufane River, Riet River, Kleinemonde East and West Rivers and the Great Fish River (Extracted from Ecological Report).

Aquatic Ecosystems

The road goes through two corridors known as River Freshwater Ecosystem Priority Areas (FEPAs). FEPAs are rivers, wetlands and estuaries that should remain in a good condition in order to conserve freshwater ecosystems and protect water resources for human use. River FEPAs are defined because they are meant to achieve biodiversity targets for river ecosystems and fish species. Sub-quaternaries associated with the Riet and Great Fish Rivers are classified as river FEPAs.

The sub-quaternary associated with the Kowie River is defined as a RehabFEPA. These are sub-quaternaries identified for the rehabilitation of threatened fish species. The West Kleinemonde River is designated as a FishFSA, which are fish sanctuaries, translocation, or relocation zones that are currently in a good condition. These were identified primarily for the potential occurrence of threatened freshwater fish species.

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)

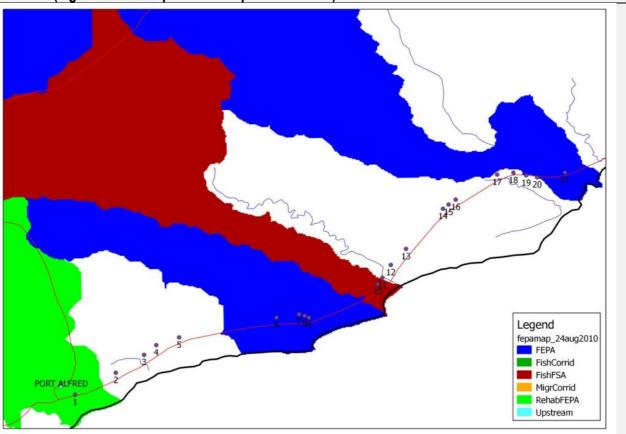


Figure 2: Sub-Quaternaries that are FEPAs (Figure taken from Ecological Report)

As detailed above, sensitive vegetation along the route is primarily associated with the riparian vegetation in close proximity to the rivers which traverse the R72. The sub-quaternaries associated with the Kowie River, Riet River, West Kleinemonde River and Great Fish River are classified as Freshwater Ecosystem Priority Areas (FEPAs).

The classification system and delineation data used to identify wetlands within the surrounding area are according to NFEPA (Nel et al, 2011 as per the Ecological Report). Other than floodplain wetlands associated with the Kowie and Great Fish Rivers, the main wetland types associated with the R72 are depressions (such as pans) and unchannelled valley-bottom wetlands.

Several wetland clusters were identified within the area surrounding the R72. Wetland clusters are groups of wetlands within 1 km of each other and embedded in a relatively natural landscape. This allows for important ecological processes such as migration of frogs and insects between them.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Daily Dispatch Newspaper
Date published	03 May 2013

Publication name	Talk of the Town Newspaper
Date published	02 May 2013

Seven site notices were placed along the route at petrol stations, truck stops, shops and a clinic. Proof of site notices and newspaper advertisement is attached 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.

The project was formally announced to the various authorities, key stakeholders and the general public as follows:

- Background Information Documents (BIDs) were sent via registered mail to identified authorities, municipal managers and ward councillors (May 2013);
- Two advertisements were placed in local newspapers, namely the Daily Dispatch and the Talk of the Town (02 and 03 May 2013);
- Seven site notices were placed at strategic locations along the route. These included petrol stations, shops, truck stops and a clinic. Notices were placed in English and Xhosa;
- Background Information Documents (BIDs) were distributed to stakeholders along the route. Two
 site visits along the route were undertaken in May 2013. Discussions with residents of the small
 residential communities (Sea Field and Kleinemonde) along the R72 were undertaken and BIDs
 were handed out to be distributed to other residents;
- The informal communities (Gcinisa Village; Lover's Twist Village and Wesley Village) were visited (May 2013) and where possible discussions with the local chief or ward councillor were undertaken in Xhosa to inform them of the project.
- BIDs were translated into Xhosa and given to the Chief/ward councillor to be distributed by them (See signed proof in Appendix E2);
- Tourism facilities, restaurants and reserves along the route were contacted about the project and the BID was emailed to them. They were invited to Register as Interested and Affected Parties (I&APs) and complete the comment sheet attached to the BID.

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

Title, Name and Su	rname Affiliation/ key st	akeholder st	tatus Contact details (tel numb or e-mail address)
Thea Swart	Owner of Fish River Diner	(040) 676 1058	fishriverdiner@telkomsa.net
Tim Cockbain	PA Ratepayers and Residents Association	(046) 624 8483 (083	3) 6 tvc@futurenet.co.za
Bert and Lana Venter	Cannon Rocks Ratepayers Association	(046) 654 0272(082)) 45 bertenlana@vodamail.co.za
Johnny Nortje			johnny.nortje@telkomsa.net
Peter Metcalf	Kleinemonde Resident	(046) 675 1989	toni.metcalf@gmail.com
Keith and Brenda Sheard	Kleinemonde Resident	(046) 675 1243	keithsheard@gmail.combrendasheard@gmail.com
Bulelwa Ntando	Wesley Resident	(073) 988 0727	
Karen Lee	Fish River Sun Hotel - Admin Manager	(040) 676 1101	karen.lee@za.suninternational.com
Robert Gimbel	Kleinemonde Resident	(046) 675 1244	robgimbel@seafield.co.za
Alida Blom	Kleinemonde Resident	(046) 675 1128	seafield.ratepayers@gmail.com
Pieter van der Byl	Nature View Farm	(046) 675 1099	pieterdoffy@natureviewfarm.co.zainfo@natureviewfarm.co
Rob Smith			robpeggye@telkomsa.net
Debi Quenet	Secretary, Port Alfred Ratepayers and Resider	nts Association	debiquenet@imaginet.co.za
Izak Scheepers	Owner of Farm 230 Portion 28 South Seas	(046) 675 1052	
Jan Daniel Wepener	Kleinemonde Resident	(082) 653 5558	
Charles Pellew (plant colonies)		(046) 624 4563	
Jennifer Ann MacLeod		(082) 321 1564	jennimac@telkomsa.net
Sheila Swanepoel	Bushmans River Mouth Ratepayers Association	046) 648 2802	ssheila@telkomsa.net
Jenny Moodie	M&J's Cottage Kitchen (Birha crafts building)	(040) 677 1036	
	Macessar Cash and Carry (Trading Store)	(040) 677 1063	
Hennie Marais	The Announcer	(072) 421 6444	hennie@theannouncer.co.za
Lynne Nettelton	Kleinemonde West Cottage Owners Ass Chair	7 (082) 470 0646	lynnenet@imaginet.co.za
Clive Cockcroft	Kleinemonde resident	(046) 675 1135	clive.gwyn@telkomsa.net
Mauneen Charter		(046) 624 4356	mcharter@timesmedia.co.za
Rory Haschick	ECDC East London	(043) 704 5710	rory@ecdc.co.za
F E Vogel	Owns B&B		Fanna@travellerslodge.co.za.
Hendrik Diekmann	Bushmans Kariega Estuary Care Forum	(046) 648 1177	hendrik@global.co.za
Ivan Schafer (for the Macleods)	Schafer's Attorney's	(046) 624 2789	ivans@intekom.co.za
Rory Gailey	Fort d Acre Game Reserve	(082) 821 7679	rory@fortdacre.com
Johan Crous	Mgwalana Home Owners Association	(082) 657 2053	johanenannet@vodamail.co.za
Alan Shaw	Owner of a property in Kleinemonde		ashaw@hyperlink.co.za
Claire Purdon	Resident in Port Alfred and Home in Seafield	(082) 690 4080	rpurdon@pga.org.za
Henry Quirk	House in Kleinemonde	(082) 335 1591	sandra@titanel.co.za

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.

See attached list of proof of registered mail and emails in Appendix E5

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
Comments and Issues raised will be included	d after the public review period of draft Basic
Assessment Report.	

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 o	f State	Contact (Title, Nar Surname)	person ne and	Tel No	Fax I	No	e-ma	nil	Postal address
	Name		Designatio	n		Telephone	number	Email	
Authorities									
Ngqushwa Local Municipality	Ms V Mbel			cipal Manager		(040) 673 3			ngqushwamun.co.za (secreta
Ngqushwa Local Municipality		S. E. Ndwayana	Mayor			(040) 6733			gqushwamun.co.za (secretar)
Ndlambe Local Municipality	Advocate F	Rolly Dumezweni	Municipal M	anager		(046) 624 1	140	rdumezwer	ni@ndlambe.gov.za
Amathole District Municipality	Mr C Magv	vangqana	Municipal M	anager				chrisma@a	amathole.gov.za
Cacadu District Municipality	T Pillay		Municipal M	anager		(041) 508 7	111		
DEDEAT	Mr Bongar	i Gxilishe	HOD Depart	ment of Economic D	evelopment, l	(043) 605 7	004	fezeka.boyi	@deaet.ecape.gov.za
DEDEAT (ADM)	Regional N	1anager	Department	of Economic Develo	pment, Enviro	(043) 707 4	000		
DEDEAT (Cacadu)	Regional N	1anager	Department	of Economic Develo	pment, Enviro	(041) 508 5	800		
Councillors									
Ngqushwa	Mbulelo Cl	narles Mapuma	Ward Counc	illor		(084) 050 3	882		
	N.Y Ndaba	zonke				(083) 309 0	191	makoti@ng	qushwamun.co.za
	A Ndanda					(073) 929 9	523	nndanda7@	ngmail.com
	Thembani	Dlova				(078) 853 6	832		-
Ndlambe	Raymond S	Schenk	Councillor a	nd Kleinemonde resi	dent	(046) 675 1	008(083) 5	ray@seafie	eld.co.za
	Ross Purd	on				(082) 552 5	425	ross.purdor	n@harcourts.co.za
	Marilyn Ta	rentaal				(079) 028 9	236	mtarentaal(@ndlambe.gov.za
	Nosicelo X	hasa				(084) 314 6	444	nxhasa@no	dlambe.gov.za
	Thembani	Mazana				(078) 082 3	445		ndlambe.gov.za
	Skumbuzo	Venene				(079) 135 2			ndlambe.gov.za
	Zache Ng	ingo				(072) 565 5			ndlambe.gov.za
	Eric Khoat					(082) 403 1	000		@ndlambe.gov.za
	Monica Ma	ateti				(071) 342 6			ndlambe.gov.za
	Charles Mo	etelerkamp				(076) 505 4			mp@ndlambe.gov.za

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

See attached list of proof of registered mail and emails in Appendix E5

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.

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

The following parameters are used to assess the nature of the impact of the proposed activity on the receiving environment:

- (i) The risk or likelihood of the impact/ occurring; and
- (ii) The degree of confidence placed in the assessment of the significance of the impact

Please note that the rating number is provided in brackets next to the scale interval. Negative impacts are minus (-) values and positive impacts are plus (+) values. Higher negative valued impacts are more detrimental than lower negative valued impacts.

1. Temporal Scale

The temporal scale defines the significance of the impact at various time scales, as an indication of the duration of the impact.

- Short Term (1) less than 5 years.
- Medium Term (2) between 5 and 15 years.
- Long Term (3) between 15 and 30 years.

• **Permanent (4)** – over 30 years and resulting in a permanent and lasting change that will always be there.

2. Spatial Scale

The spatial scale defines physical extent of the impact.

- Individual (0) this scale applies to person/s in the area.
- Household (1) this scale applies to households in the area.
- Localised (2) small scale impacts from a few hectares in extent e.g. local district area.
- Regional (3) the scale applies to impacts on a provincial level.
- National (4) the scale applies to impacts that will affect the whole South Africa.
- International (5) the scale of the impact will extend beyond the borders of South Africa.

3. Significance Scale

Very High (4)

The impacts would be considered by society as constituting a major and usually permanent change to the environment, and usually result in severe or very severe effects, or beneficial or very beneficial effects.

High (3)

These impacts will usually result in long-term effects on social and/or natural environment. Impacts rated as *High* will need to be considered by society as constituting an important and usually long term change to the environment. Society would probably view these impacts in a serious light.

Moderate (2)

These impacts will usually result in medium to long-term effects on the social and/or natural environment. Impacts rated as *Moderate* will need to be considered by society as constituting a fairly important and usually medium-term change to the environment.

These impacts are real but not substantial.

• Low (1)

These impacts will usually result in medium to short term effects on the social and/or natural environment. Impacts rated as *Low* will need to be considered by the public and/or the specialist as constituting a fairly unimportant and usually short term change to the environment.

These impacts are not substantial and are likely to have little real effect.

• Non Significant (0)

There are no primary or secondary effects at all that are important to scientists or the public.

4. Risk or likelihood

The risk or likelihood of all impacts taking place as a result of project actions differs. Although these impacts may be severe, the likelihood of them occurring may affect their overall significance and will be taken into account.

- Very unlikely to occur (1) the chance of these impacts occurring is extremely slim.
- Unlikely to occur (2) the risk of these impacts occurring is slight.
- May occur (3) the risk of these impacts is more likely, although not definite.
- Will definitely occur (4) –this impact will occur.

5. <u>Degree of confidence or certainty</u>

It is also necessary to state the degree of certainty or confidence with which one has predicted the significance of an impact. For this reason, a 'degree of certainty' scale has been provided to enable the reader to ascertain how certain we are of our assessment of significance:

- Definite More than 90% sure of a particular fact. The use this one will need to have substantial supportive data.
- Probable Over 70% sure of a particular fact, or of the likelihood of that impact occurring.
- Possible Only over 40% sure of a particular fact or of the likelihood of an impact occurring.
- Unsure Less than 40% sure of a particular fact or the likelihood of an impact occurring.

Impact rating significance:

Low impact (4 - 6 points)	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as part of a standing design, construction or operating procedure.
Medium impact (7 - 9 points)	Mitigation is possible with additional design and construction inputs.
High impact	The design of the site may be affected. Mitigation and possible remediation
(10 - 12 points)	are needed during the construction and/or operational phases. The effects of the impact may affect the broader environment.
Very High impact	Permanent and important impacts. The design of the site may be affected.
(13 - 16 points)	Intensive remediation is needed during construction and/or operational phases. Any activity which results in a "very high (negative) impact" is likely to be a fatal flaw.
Status	Denotes the perceived effect of the impact on the affected area.
Positive (+)	Beneficial impact.
Negative (-)	Deleterious or adverse impact.
Neutral (/)	Impact is neither beneficial nor adverse.

Construction Phase Impacts						
	Direct	Impacts				
Potential impacts: Construction Phase	Significant rating of impacts	Proposed Mitigation Measures	Significant rating of impacts after mitigation			
General construction impacts						
 Movements of trucks delivering construction material and other construction activities will impact on general traffic movements and cause traffic delays during construction The sourcing of construction material from borrow pits will result in aesthetic/visual impacts and air quality impacts. Waste generation due to the removal and stockpiling of any tar, asphalt and road surface layers Potential for hazardous waste spills such as used oil and/or diesel from machinery and vehicles Increased noise levels due to the movement of vehicles and construction activities. Increased dust generation due to the movement of vehicles and construction activities 	Temporal: Short-term (1) Spatial: Localised (2) Significance: High (3) Likelihood: Definitely (4) Certainty: Probable	 Dust suppression measures need to be implemented on site when necessary to reduce the dust impacts. Dust suppression should be in the form of water applied on exposed surfaces and road shoulders during periods of high dust generation. Construction vehicles should not travel faster than 40km/hr on gravel or unpaved road surfaces. Waste must be collected bi-weekly to prevent accumulation on site. Disposal of waste must be in accordance with relevant legislative requirements. The burning of waste as a disposal method is not permitted. Where possible, construction waste should be reused or recycled. Spill kits should be available on site at all times. Oil spillages must be minimised and any spills must be disposed of in accordance with the relevant legislative requirements. Chemical sanitary facilities need to be provided to workers and serviced weekly. Where possible noise need to be minimised by conducting construction activities between 07H00-17H00. The construction site and borrowpits should be barricaded to prevent unauthorised access. 	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: May occur (3) Certainty: Possible			
	Rating= -10		Rating= -7			
Ecological Impacts						

•	Potential for increased soil erosion due to vegetation removal and exposed surface areas. During the construction period there may be an increase in run-off which is associated with additional exposed surfaces due to the removal of vegetation and compaction of soils resulting in infiltration reduction.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: May occur (3) Certainty: Probable	 Structures such as culverts, drains and erosion protection mechanisms should utilise existing drainage channels and development in flood-prone areas (e.g. 1:50 year floodline) should be avoided. Vegetation should be cleared in a phased manner to prevent exposure of soil which may result in erosion and siltation of nearby watercourses. 	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: May occur (3) Certainty: Possible
		Rating= -8		Rating= -7
•	Pollution of soil and surrounding natural environment due to spillages from vehicles and/or machinery The excavation of soil, stockpiling and use of materials associated with construction activities may lead to run-off and siltation of surface water bodies.	Temporal: Short-term (1) Spatial: Localised (2) Significance: High (3) Likelihood: Definitely (4) Certainty: Probable	 Refurbishment, repair and servicing of equipment should be performed 50 meters away from surface water resources with drip trays or on sealed surfaces to prevent contamination of soil and runoff. Stockpiles must be located at least 50 meters away from any surface water resources. Adequate stormwater measures should be implemented to ensure dirty water remains contained. 	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: May occur (3) Certainty: Possible
		Rating= -10		Rating= -7
•	Potential groundwater pollution from spills and storage of hazardous waste.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: Unlikely (2) Certainty: Possible	 During the construction phase, special care should be taken to avoid seepage areas adjacent to water courses. 	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: Unlikely (2) Certainty: Possible
		Rating= -7		Rating= -6
•	Loss of indigenous vegetation The removal of any protected species will require a permit from the Department of Agriculture, Forestry and Fisheries. Altered species composition due to alien invaders due to vegetation disturbance	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: Unlikely (2) Certainty: Possible	 Vegetation clearance should be kept to the minimum required for the construction activities to mitigate against erosion, dust and unnecessary destruction of species. Large tree species found within the road reserve should be removed and replanted in a suitable habitat. Removal of alien species Any soil imported to the site should be screened for 	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: Unlikely (2) Certainty: Possible

		 alien propagules No trees shall be felled for fuel purposes or disturbed outside the road reserve and borrowpit areas during the construction period. 	
	Rating= -7		Rating= -6
Safety Impacts			
Children and animals may fall into trenches if not barricaded.	Temporal: Short-term (1) Spatial: Localised (2) Significance: High (3) Likelihood: May occur (3) Certainty: Possible	 No animals or other species should be harmed unnecessarily during any construction activities. Trenches should be barricaded appropriately at all times to prevent harm to any animal or unauthorised persons. 	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: Unlikely (2) Certainty: Possible
	Rating= -9		Rating= -6
Heritage Impacts			
 No archaeological deposits or heritage features were identified during the Heritage Impact Assessment There is however a high probability of exposing such artefacts during the construction phase 	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: May occur (3) Certainty: Possible	 The Heritage specialist recommended that a watching brief be instituted during construction activities. (i.e. a professional archaeologist should inspect construction areas during the removal of topsoil and excavation activities). Should any artefacts be uncovered, construction activities should be halted until the significance of the artefact can be assessed. 	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: Unlikely (1) Certainty: Possible
	Rating= -8		Rating= -5
Social Impacts			
Jobs will be created during the construction phase.	Temporal: Long-term (3) Spatial: Localised (2) Significance: Moderate (2) Likelihood: Definitely (4) Certainty: Possible	No mitigation required.	N/A
	Rating= + 11		N/A
Traffic Impacts			

٠	There will be disruptions to traffic during the construction phase.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: Will occur (4) Certainty: Definite Rating= - 9	•	Construction activities which require traffic to be stopped or closure of a lane should be undertaken outside of peak traffic hours.	N/A
We	tland Impacts				
•	Loss of wetland habitat and bed/bank modification of fresh water systems due to construction activities.	Temporal: Short-term (1) Spatial: Localised (2) Significance: High (3) Likelihood: May occur (3) Certainty: Probable	•	A wetland assessment and delineation of a buffer zone should be undertaken prior to construction activities in close proximity of any wetland or watercourses. No construction may occur within wetland areas. Limit the area of disturbance to the minimum possible for compulsory construction activities on culverts within watercourses/drainage lines.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: May occur (3) Certainty: Possible
		Rating= -9			Rating= -8
•	Stormwater quality impairment (sedimentation and construction related effluent)	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: May occur (3) Certainty: Possible	•	Runoff should be prevented from directly entering the wetlands and associated water features through the use of diversion berms and/or cut-off drains.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Low (1) Likelihood: May occur (3) Certainty: Possible
		Rating= -8			Rating= -7
•	Loss of terrestrial and wetland biodiversity.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: May occur (3) Certainty: Possible	•	Heavy construction vehicles should be not be utilised in close proximity to any wetlands. All alien vegetation should be cleared within the construction servitude.	Temporal: Short-term (1) Spatial: Localised (2) Significance: Moderate (2) Likelihood: May occur (3) Certainty: Possible
		Rating= -8			Rating= -8
		Indirec	t Imp	pacts	
Eco	ological Impacts				
•	Floristic species changes due to the construction activities Impacts on surrounding species	Temporal: Medium-term (2) Spatial: Localised (2) Significance: Moderate (2) Likelihood: Unlikely (2)	•	Exotic weeds and invader species should be controlled and removed from areas where vegetation has been cleared	Temporal: Medium-term (2) Spatial: Localised (2) Significance: Low (1) Likelihood: Unlikely (2)

	Certainty: Possible	 Monitoring the potential spread of declared weeds and invasive alien vegetation to neighbouring land must be undertaken 	Certainty: Possible
	Rating= -8		Rating= -7
	Cun	nulative Impacts	
pollution aspects.	• Spatial: Localised (2) Significance: Low (1) Likelihood: Unlikely (2) Certainty: Probable	for construction activities to be undertaken. All pollution and waste management mitigation measures to be adhered to during the construction phase.	Temporal: Long-term (3) Spatial: Localised (2) Significance: Low (1) Likelihood: Unlikely (2) Certainty: Probable
	Rating= -8	R	Rating= -8

Summary of Negative Impacts:

Impact	Without Mitigation	With Mitigation
Direct Impacts		
General Construction impacts	- 10	- 7
Ecological	- 8.2	- 6.4
Heritage	- 8	- 5
Wetland	- 8.3	- 7.6
Indirect Impacts		
Ecological	- 8	- 7
Cumulative	- 8	- 8
Total Average	- 8.5	- 6.8

Summary of Positive Impacts:

Impact	Without Mitigation	With Mitigation
Direct Impacts		
Social	+ 11	N/A

Operational Phase Impacts Direct Impacts			
Potential impacts: Construction Phase	Significant rating of impacts	Proposed Mitigation Measures	Significant rating of impacts after mitigation
Social Impacts			
 The proposed upgrade of the R72 will improve safety and travelling conditions for vehicles using the road 		• N/A	N/A
	Rating= +12		N/A

Summary of Positive Impacts:

Impact	Without Mitigation	With Mitigation
Direct Impacts		
Social	+ 12	N/A

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 <u>after</u> 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)

Negative impacts relating to the bio-physical and socio-economic environments due to the upgrading of the R72 will primarily occur during the construction phase of the project. The impacts associated with construction include nuisance and disruption impacts such as stop-and-go's where construction is underway. General construction related impacts such as increased noise and dust will also occur due to vehicles and machinery used in the construction process.

Impacts on flora and fauna are considered of low significance, as construction will take place within the existing road reserve which is already disturbed. Potential impacts on watercourses and wetland areas are considered to be of medium significance due to the need to upgrade culverts and a bridge. Run-off and siltation of water courses could potentially occur where construction is undertaken close to or within a watercourse. Management measures identified within the EMPr will decrease the severity of impacts to within acceptable levels and must be adhered to at all times.

The upgrade of the road will improve the current road surface condition and add additional climbing lanes where required, thereby improving travelling conditions for all vehicles and trucks which utilise the road. This will result in positive impacts for road users as well as economic and tourism opportunities within the area.

Alternative B

Alternative C

No-go alternative (compulsory)

The no-go alternative means that no environmental impacts will take place due to upgrading of the existing R72 road.

It does however mean that the condition of the road surface will remain in a sub-standard condition which affects the vehicles and trucks which utilise this road. The road is an important transport corridor for vehicles and goods between Port Elizabeth and East London and the condition of the road is an important consideration for economic as well as tourism activities in the area.

SECTION E. RECOMMENDATION OF PRACTITIONER

SIGNATURE OF EAP

CECTION E. RECOMMENDATION OF FRACTITIONER
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)? 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).
N/A 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.
Please see Environmental Management Programme (EMPr) attached in Appendix G
Is an EMPr attached? The EMPr must be attached as Appendix G. YES✓ NO
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.
NAME 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