

EXECUTIVE SUMMARY

1. INTRODUCTION

This Executive Summary incorporates the main findings of the Environmental Impact Assessment (EIA) that has been undertaken for the proposed N2 Wild Coast Toll Highway. The proposed project extends over a total distance of approximately 560 km between the N2 Gonubie Interchange (near East London in the Eastern Cape) and the N2 Isipingo Interchange (south of Durban in KwaZulu-Natal) (see Figure 1).



Figure 1: The proposed N2 Wild Coast Toll Highway route between the Gonubie Interchange (Eastern Cape) and the Isipingo Interchange (KwaZulu-Natal)

All comments received on the Draft Environmental Impact Report (EIR) have been collated in a Comments Report that is included as Volume 5 of the Final EIR. It should be noted that all significant changes to the Draft EIR are indicated in underlined text.

1.1 BACKGROUND TO THE STUDY

A previous EIA for the proposed N2 Wild Coast Toll Highway resulted in the issuing of an environmental Record of Decision (RoD), on 3 December 2003, which authorised the South African National Roads Agency Limited (SANRAL) to undertake the proposed project. However, numerous appeals were subsequently lodged with the Minister of Environmental Affairs and Tourism objecting to the authorisation granted to SANRAL. On 9 December 2004 the Minister upheld the appeals and set aside the authorisation on the grounds that the appointed environmental consultant did not meet the requirement for independence as contemplated in the EIA Regulations (Government Notice R1183 of 5 September 1997, as amended) promulgated under the Environment Conservation Act, 1989 (ECA, Act No. 73 of

1989). In addition to a number of other items, the Minister's decision also indicated that this did not preclude a new application for environmental authorisation from being submitted.

Following a proposal call by SANRAL in January 2005, SANRAL subsequently appointed CCA Environmental (Pty) Ltd (CCA), in association with NMA Effective Social Strategists (formerly Nomi Muthialu & Associates (Pty) Ltd; NMA), as independent environmental consultant to submit a new application for environmental authorisation and to undertake the required EIA of the proposed project as per the requirements of the ECA EIA Regulations.

1.2 OVERVIEW OF STUDY PROCESS

APPLICATION FOR AUTHORISATION AND PLAN OF STUDY FOR SCOPING

In April 2005 CCA submitted the required Application for Authorisation forms and a Plan of Study for Scoping, on behalf of SANRAL, to the Department of Environmental Affairs (DEA; the lead environmental authority – formerly the Department of Environmental Affairs and Tourism), the Eastern Cape Department of Economic Development and Environmental Affairs (formerly the Eastern Cape Department of Economic Affairs, Environment and Tourism) and the KwaZulu-Natal Department of Agriculture and Environmental Affairs. DEAT, with due consideration of comments received from the relevant provincial environmental authorities, accepted the Plan of Study for Scoping on 20 June 2005.

SCOPING STUDY

A Scoping Study was undertaken in accordance with the requirements of the ECA EIA Regulations (Government Notice R1183 of 5 September 1997, as amended). The findings of the Scoping Study were presented in the Final Scoping Report (FSR), which was submitted to the relevant environmental authorities for consideration during March 2007.

The Scoping Study included a comprehensive audit of all the issues and concerns raised during the previous EIA's Scoping Study, Impact Assessment phases in order to ensure that all relevant issues and concerns are adequately addressed in the current EIA. Existing information considered to be adequate and credible was used, as appropriate, in formulating the scope of the work and compiling the necessary documentation. The Scoping Study was undertaken with an initial round of public consultation aimed at providing Interested and Affected Parties (I&APs) an opportunity to comment on the proposed new EIA process only. The distribution of the Draft Scoping Report (DSR) and associated public consultation process (refer to Section 2.4 and Volume 2, Appendix 10 of the FSR) provided I&APs adequate opportunities to raise any issues and concerns on the proposed project and Scoping Study.

As mentioned in Chapter 7 of the FSR, numerous issues and concerns were raised by I&APs and identified by the EIA project team during the Scoping Study. These were categorised into 12 twelve main categories, as follows:

- EIA process and legal issues;
- Public consultation process;
- Specialist studies;
- Planning and policy issues;
- Motivation/need for the project;
- Scope of work and construction issues;
- Road, traffic and transportation issues;
- Alternative routes;
- Tolling issues;
- Economic issues;

- Social issues; and
- Biophysical issues.

A number of issues and concerns were identified as “key” issues in the FSR since they were deemed to have significant implications in terms of consideration of the adequacy of the Scoping Study and/or way forward in the EIA process. The following key issues and concern were identified:

1. Legality and adequacy of the EIA process;
2. Validity of the use of information from the previous EIA process;
3. Adequacy of the consideration of alternatives;
4. Adequacy of the consideration of alternative alignments;
5. Adequacy of the public consultation process;
6. Adequacy of the motivation/need for the proposed project;
7. Potential biophysical, social and economic impacts;
8. General support for the proposed project in the Eastern Cape and general opposition in KwaZulu-Natal;
9. Reliance on information provided by SANRAL;
10. Cross-subsidisation; and
11. Bypasses to Butterworth, Dutywa and Mthatha.

Section 7.6 and Appendix 14 (Comments and Responses Report) of the FSR provide the EIA project team’s and SANRAL’s responses to the above key issues and concerns, as appropriate.

Issues and concerns to be addressed in the Impact Assessment phase of the study are comprehensively described in Chapter 8 of the FSR. These relate to the potential biophysical, social and economic impacts which could result from the construction and operational phases of the proposed project. Some examples of the identified potential impacts are provided in the table below.

CATEGORY/ASPECT	EXAMPLE OF POTENTIAL IMPACT
BIOPHYSICAL IMPACTS	
Vegetation and flora	Loss of species of special concern and sensitive habitats; secondary and cumulative impacts; and consideration of the ecological sustainability of the proposed project.
Fauna	Loss of sensitive faunal habitats; increased animal mortalities; and impacts of bridges on breeding grounds of birds of prey.
Aquatic ecosystems	Potential impact on sensitive aquatic habitats; effects of changes in river channel structure and condition; and secondary impacts of improved accessibility of aquatic resources.
Soils, land use and agriculture	Loss of productive/potentially productive land; impacts on subsistence farming activities; and impacts in terms of likely improved regional access.
SOCIAL IMPACTS	
Social structures, functions and processes	Resettlement of affected households; social effects of potential improved local employment and regional economic development; and effects on the way of life of affected communities.
Tourism	Potential impact in terms of perceived increased cost to reach a destination; increase in growth and number of tourist products; and consideration of relevant local and regional tourism initiatives.
Cultural and historical heritage	Potential impact on historical heritage and cultural landscapes or views; impacts on burial grounds and graves; and impacts on sites of spiritual and religious importance.
Noise	Potential impacts associated with the construction phase; elevated noise levels of road traffic noise along the proposed route; and elevated noise levels along alternative routes.
Air quality	Potential impacts on local air quality and human health in sensitive areas; cumulative effects in South Durban Industrial Basin; and impacts on local air quality along alternative routes.
Visual	Potential impacts of the proposed road, high-level bridges, interchanges and toll plazas on the sense of place, especially in the greenfields sections; impacts on landscape character; and impacts in terms of critical views from the surrounding areas.
Traffic	Potential impacts on macro-transportation issues, particularly in the KwaZulu-Natal South Coast area; impact of traffic diversion around toll plazas; impacts relating to the construction phase.
Planning/development	Potential impacts on regional strategic planning and development initiatives; impacts associated with the land claims process; and compatibility of the proposed project with relevant Wild Coast planning and policy initiatives.
ECONOMIC IMPACTS	
Economic impacts	Potential impact on businesses both along the route and in the region; net economic impact on road users; and impact on towns along the existing N2 and R61 that would be bypassed by the proposed new route.

The Scoping Study also included consideration of various alternatives, namely the “do nothing” alternative, alternative route alignments and alternative positions for certain proposed mainline toll plazas. The following alternative alignments were considered in the Scoping Study (see Figure 2):

- Upgrade the existing N2 between Mthatha and Port Shepstone in relation to the “do nothing” alternative;
- Upgrade the existing R61 between Mthatha and Port Shepstone in relation to the “do nothing” alternative;
- Gallagher route between Mthatha and Port Shepstone in relation to the “do nothing” alternative; and
- Various alternative greenfields alignments between Lusikisiki and the Mthamvuna River (e.g. the WESSA and Coastal Mzamba routes).



Figure 2: Some alternative route alignments between Mthatha-Port Shepstone and Lusikisiki-Mthamvuna River analysed in the Scoping Study

The FSR provided a comparative analysis of the environmental, technical financial and economic implications of the alternative route alignments, as appropriate, and indicated which ones would be carried forward for further investigation in the Impact Assessment phase of the EIA process (refer to Chapter 5 of the FSR for further detail in this regard). The following alternatives were considered “feasible” and were taken forward for further investigation and assessment in the Impact Assessment phase of the EIA:

- The “do nothing” alternative;
- SANRAL’s preferred alignment between Lusikisiki and the Mthamvuna River (see Figure 3);
- The Coastal Mzamba route between Lusikisiki and the Mthamvuna River (see Figures 3 and 4);

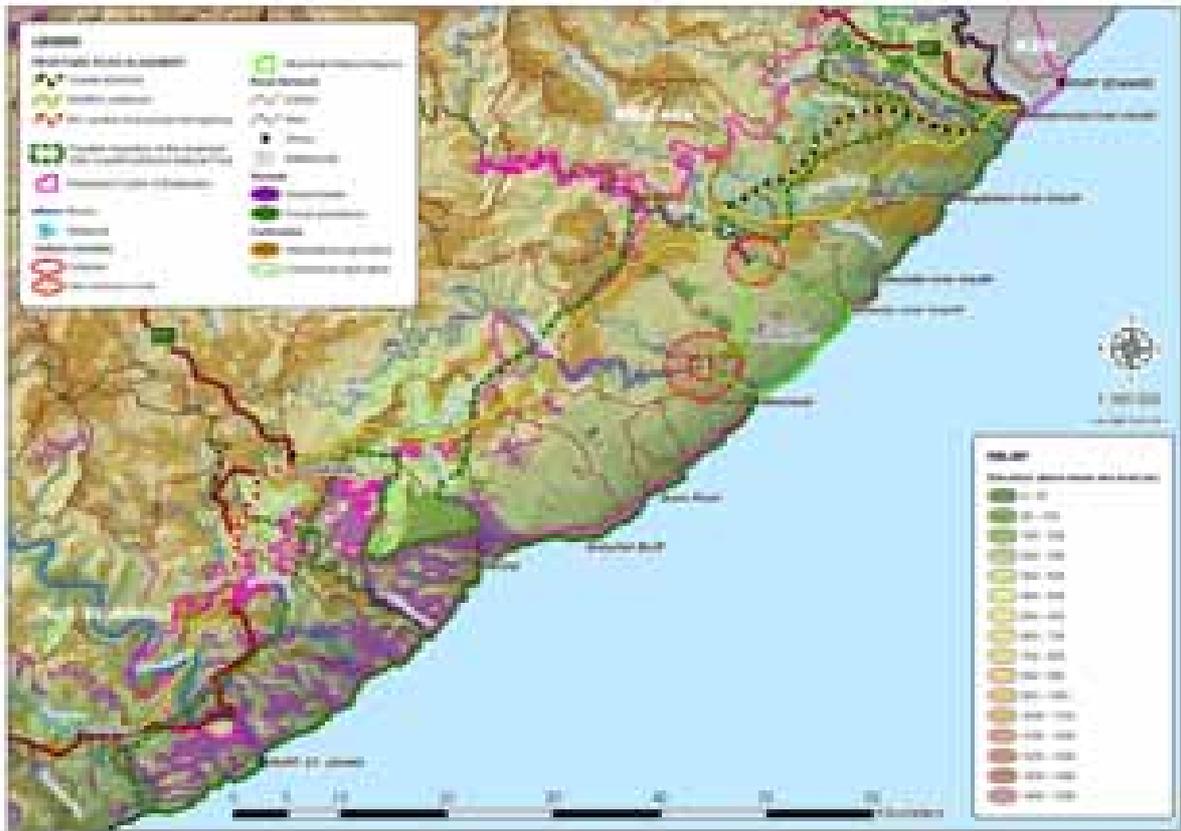


Figure 3: Topography and land use in the study area between Ndwalane/Port St Johns and the Mthamvuna River, with SANRAL's preferred and the Coastal Mzamba routes through this section

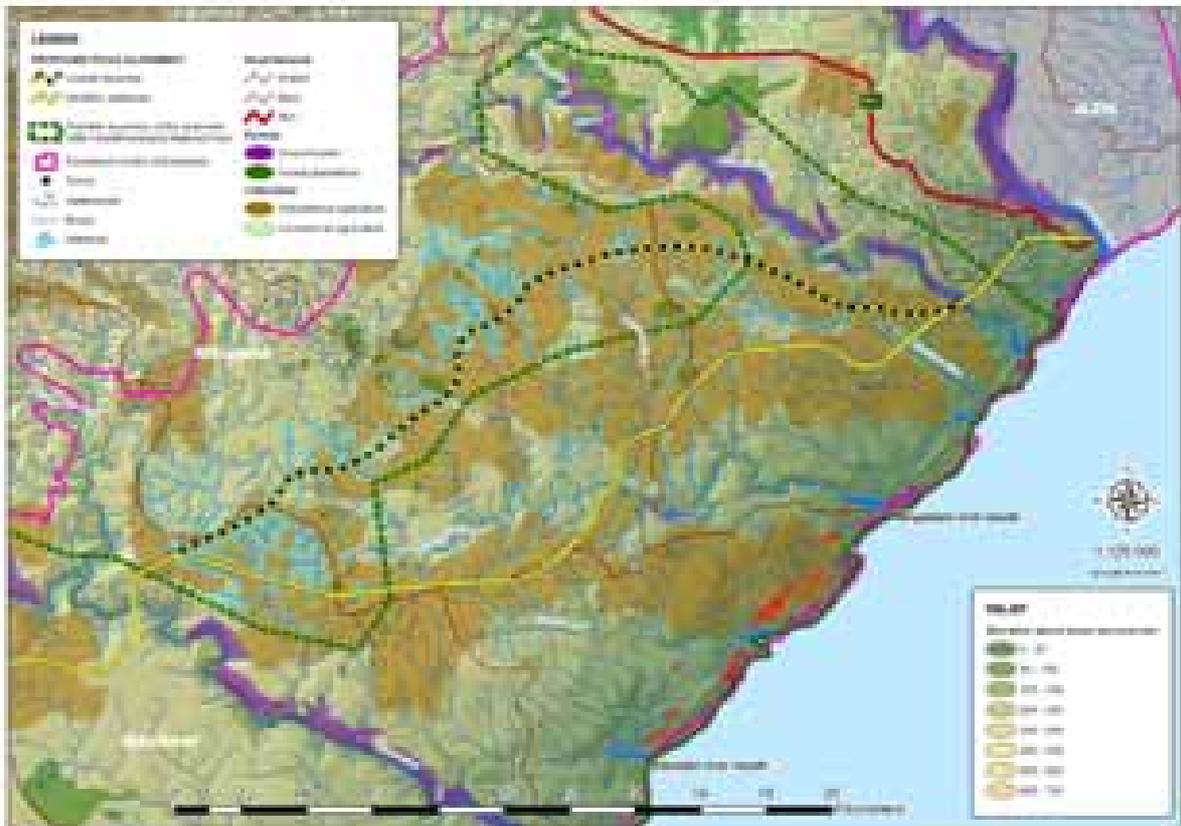


Figure 4: Receiving environment in the section between the Mthentu and the Mthamvuna rivers, with SANRAL's preferred and Coastal Mzamba routes

- Alternative mainline toll plaza positions to SANRAL’s preferred Ndwalane and Mthentu mainline toll plazas; and
- The site-specific alternative route alignments in the greenfields sections of the proposed project, i.e. in the sections between Ndwalane and Ntafufu and between Lusikisiki and the Mthamvuna River, as follows:
 - for the proposed alignment between Ndwalane and the Mzimvubu River (see Figure 5);
 - for the proposed alignment in the vicinity of Ntafufu village and the Ntafufu Rive (see Figure 6);
 - for the proposed alignment across the Msikaba River (see Figure 7);
 - for the proposed alignment across the Mthentu River (see Figure 8); and
 - for the proposed alignment across the Mnyameni River (see Figure 9).

The potential implications of the “do nothing” alternative were used mainly as a “base case” against which the potential impacts of the proposed project and the other identified feasible alternatives were measured.

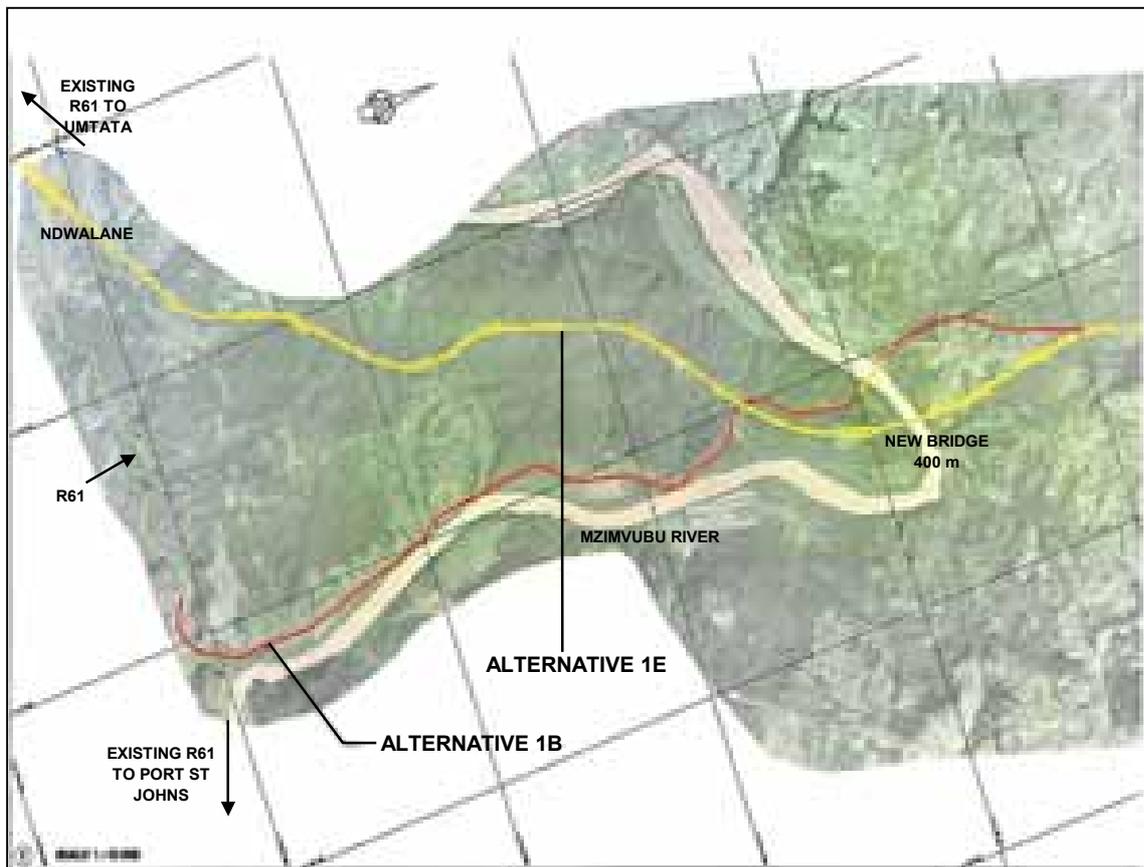


Figure 5: SANRAL preferred route (Alternative 1e) and the alternative alignment (Alternative 1b) between Ndwalane and the Mzimvubu River

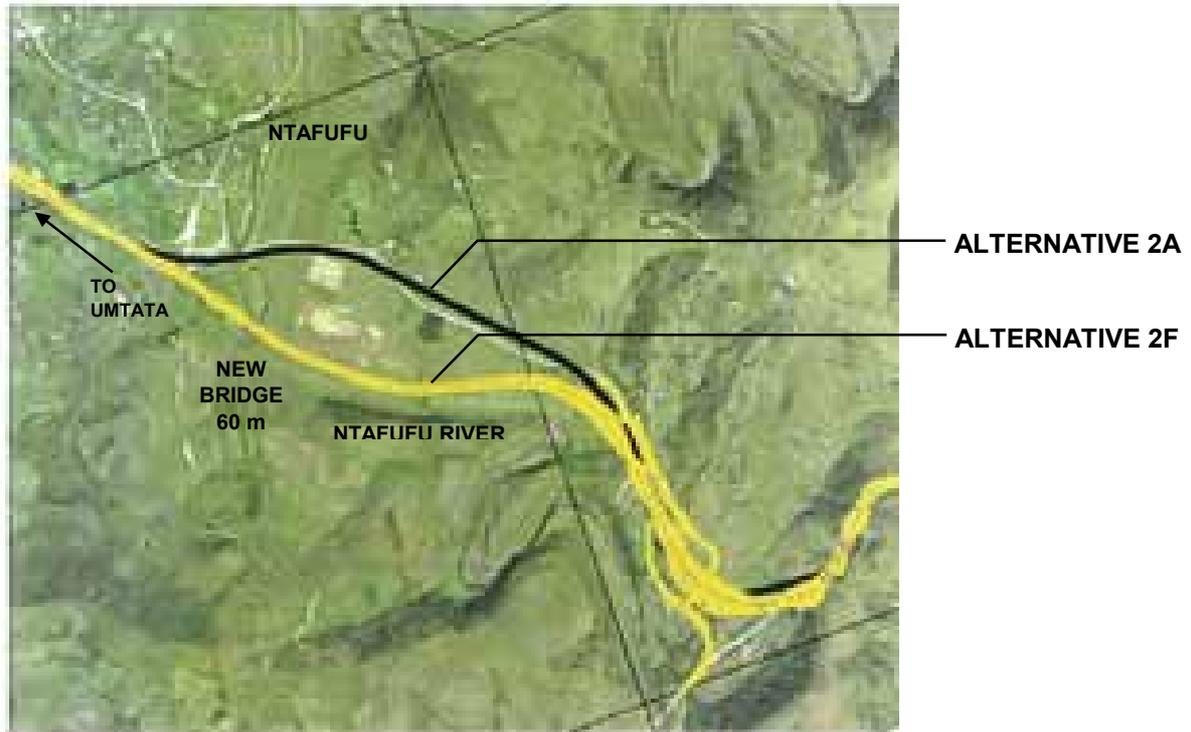


Figure 6: SANRAL preferred route (Alternative 2f) and the alternative alignment (Alternative 2a) in the vicinity of the Ntafufu village and Ntafufu River

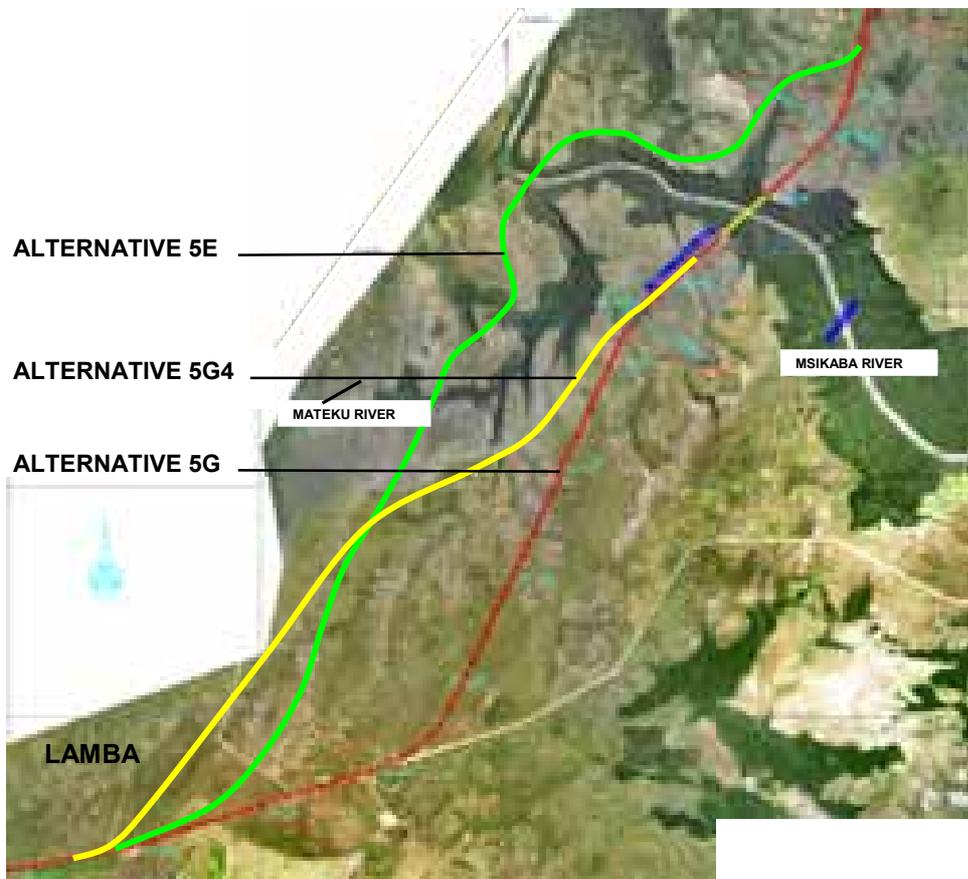


Figure 7: SANRAL preferred route (Alternative 5g4) and alternative alignments 5g and 5e across the Msikaba River

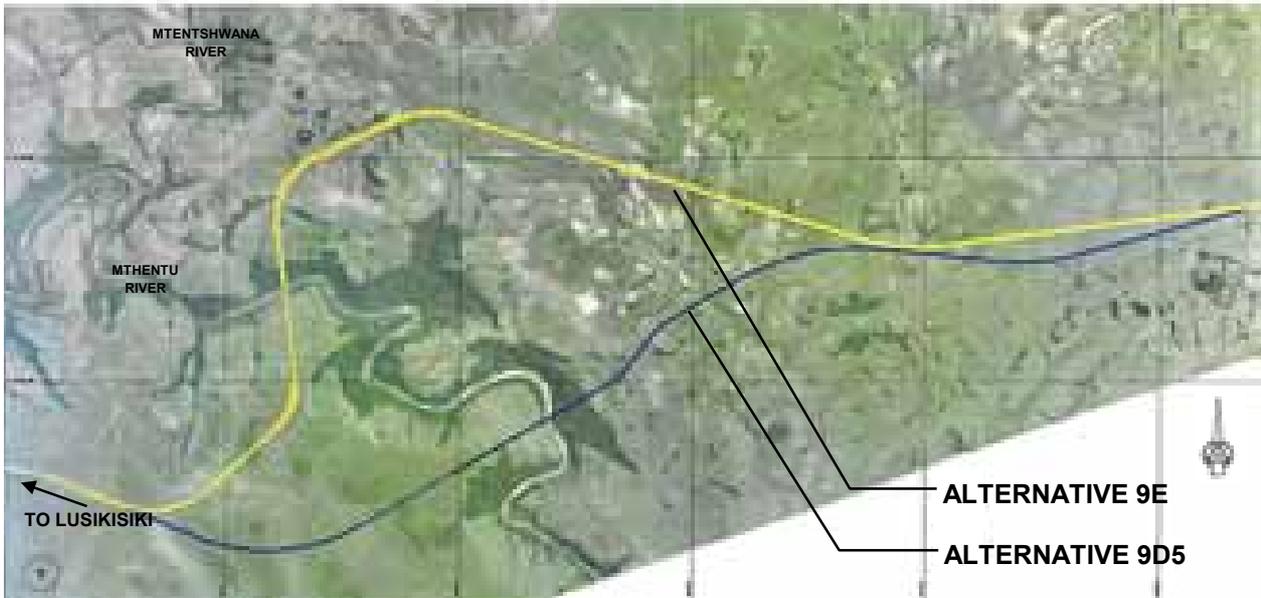


Figure 8: SANRAL preferred route (Alternative 9e) and the alternative alignment (Alternative 9d5) across the Mthentu River

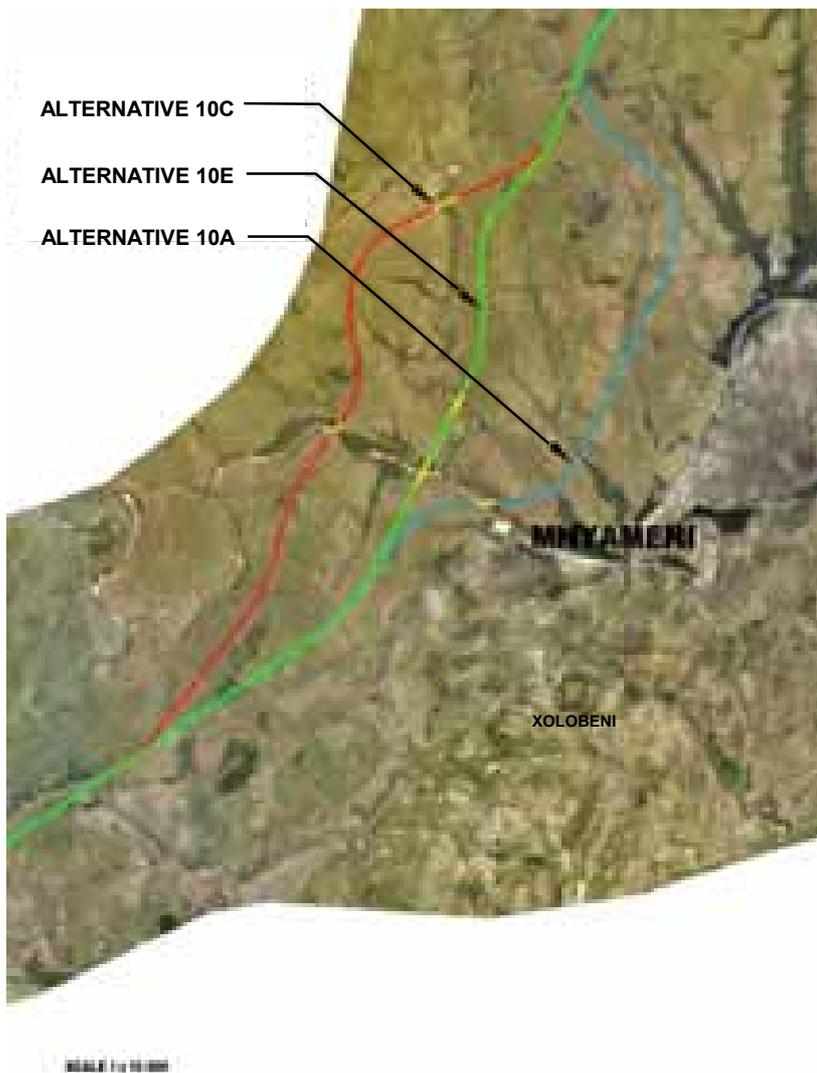


Figure 9: SANRAL preferred route (Alternative 10c) and alternative alignments 10a and 10e across the Mnyameni River

PLAN OF STUDY FOR EIA

A Plan of Study for EIA was submitted to the relevant environmental authorities in April 2007. The Plan of Study for EIA provided, amongst others, a description of the environmental issues identified during the Scoping Study, the identified feasible alternatives to be investigated and assessed in the Impact Assessment phase and the method of identifying and determining potential impacts. DEAT accepted the FSR and Plan of Study for EIA during May 2007 and requested that SANRAL submit an Environmental Impact Report (EIR) which should comply with the requirements of Regulation 8 of the ECA EIA Regulations.

SPECIALIST STUDIES

Suitable, independent specialists were thus duly commissioned, between May and July 2007, to undertake 13 specialist studies on potential impacts associated with the construction and operation of the proposed project, as per the Terms of Reference formulated in Chapter 9 of the FSR. Specialist studies were undertaken in the following fields: vegetation and flora; fauna; aquatic ecosystems; soils, land use and agriculture; social; tourism; cultural and historical heritage; noise; air quality; visual; traffic; planning/development; and economic.

The specialist reports compiled as part of the previous EIA were considered to reflect independent specialist studies suitable for use in the current EIA except the Eastern Cape planning study, the visual study and the traffic study. The latter studies needed to be re-done. The specialist studies were generally aimed at:

- Reviewing the previous independent specialist reports, where applicable, in order to determine the continued relevance thereof;
- Updating existing information, where applicable, in light of any relevant new information and current project details (e.g. inclusion of the alternative Mthentu toll plaza location);
- Ensuring that all relevant issues/potential impacts and key shortcomings and/or gaps are adequately addressed; and
- Including the results of new investigations (e.g. assessment of the potential impacts of the Coastal Mzamba alternative alignment).

Draft specialist reports were subjected to external peer specialist review, which informed the compilation of the final draft specialist reports.

COMPILATION OF FINAL EIR

The key findings of the specialist studies undertaken to assess the potential biophysical, social and economic impacts of the proposed project and the alternatives brought forward for further investigation were presented in a Draft EIR. The report integrated and synthesised the results of the specialist studies and other relevant, available information and provided an overall assessment of the potential impacts of the proposed project and the identified feasible alternatives. The findings of a comparative assessment of alternative route alignments and toll plaza locations were presented and recommendations were made in terms of mitigation, enhancement and management measures that would be applicable to the further planning, design, construction and operation of the proposed project (if authorised).

Section 2.2.2(c) of the Final EIR provide detailed descriptions of the distribution of the Draft EIR and the associated public consultation process. A basic analysis of the comments received during the Draft EIR comment period (10 November 2008 to 22 January 2009) reveals the following (see Volume 1, Appendix E for details):

- A total of 7 876 written submissions were received;
- A large number of submissions (2 848; 36.2 %) are duplicates of standard objection forms;

- The majority (97.6 %) of original KwaZulu-Natal submissions raised issues related to tolling - i.e. the potential negative impacts on business, commuters, air quality, safety on alternative routes, etc. These submissions highlight the overwhelming resistance to the proposed tolling of the existing N2 on the Upper South Coast;
- On the contrary, only 8.5 % of the Eastern Cape submissions raised tolling-related issues. The Eastern Cape submissions show strong support for the proposed project and the potential employment opportunities that would arise during construction, particularly in the greenfields sections, while concerns were raised about access across the proposed toll highway for people and cattle, fencing and its maintenance, and issues of relocation and compensation;
- The most commonly raised issues (original submissions) in the KwaZulu-Natal submissions related to opposition to tolling on the Upper South Coast (86.7 %), affordability of tolling for the poor (39.2 %), the potential impact on commuters working in the South Durban Basin (27.1 %) and perceived cross-subsidisation whereby I&APs on the Upper South Coast feel they would be paying for the construction of the proposed new road in the Eastern Cape (18.1 %); and
- The two main issues raised in the Eastern Cape submissions were that the proposed project should go ahead (77.1 %) and that local people should be given job opportunities during construction (47.1%).

The Final EIR has been compiled with due consideration of comments received during the Draft EIR comment period and responses provided by the EIA project team, relevant specialists and SANRAL, as appropriate, and additional input received from the aquatic ecosystems, social and planning/development specialists. The Final EIR will be submitted to the relevant environmental authorities for consideration and decision-making.

1.3 AVAILABILITY OF THE FINAL EIR

Copies of the full report will be lodged in the following public libraries/venues for I&AP information purposes:

Eastern Cape

East London Central Library	Tabankulu Library
Gonubie Library	Port St Johns Library
Komga Library	Lusikisiki Information Centre
Butterworth Public Library	Ingquza Hill Municipal Offices (Lusikisiki)
Dutywa Public Library	Flagstaff Information Centre
Mthatha Public Library	Ingquza Hill Municipal Offices (Flagstaff)
Mhlonto Municipal Offices (Qumbu)	Bizana Library
Umzimvubu Municipal Offices (Mount Ayliff)	Matatiele Library
Nyandeni Municipal Offices (Libode)	

KwaZulu-Natal

Kokstad Public Library	Cragieburn Library
Harding Public Library	Scottburgh Memorial Library
Ezingolweni Municipal Offices (Izingolweni)	Park Rynie Library
Durban Central Reference Library	Umzinto Library
Isipingo Civic Library	Pennington Library
Isipingo Beach Library	Hibberdene Library
Athlone Park Public Library	Umtentweni Library
Amanzimtoti Library	Port Shepstone Library
Kwamakhuta Library	Uvongo Library
Kingsburgh Library	Margate Library
Umkomaas Library	Southbroom Library
Adams Mission Library	Port Edward Library

The full report will also be made available on the websites www.ccaenvironmental.co.za and www.nra.co.za.

2. PROPOSED PROJECT

2.1 MOTIVATION FOR THE PROPOSED PROJECT

NATIONAL AND REGIONAL ECONOMIC CONTEXT

National road networks link together the main cities and economic regions of a country and thus play an important developmental role in economic growth and social upliftment. National road networks are primarily designed to facilitate the safe and efficient movement of people, goods and services over medium to long distances between economic centres. Trips are undertaken by private vehicles (commuter, business and recreational trips), public transport and commercial heavy vehicles to satisfy the needs and requirements of the unitary economic unit, i.e. the household, in a particular corridor, adjacent regions and the rest of the country. At a regional level, the provincial and local road networks provide the necessary linkages to the local communities thereby providing, with the national network, the required mobility to provide the basic ingredients for socio-economic growth.

The former Transkei, particularly the region between the Kei River and the Mthamvuna River is doubly handicapped in this respect. Not only does it currently have few economically realisable natural resources but the rugged and mountainous terrain has ensured that access is barely adequate at best and rudimentary at worst. The alignment of the existing N2, for instance, was determined in 1936 (the actual road was substantially completed by 1946) and has remained the only primary access to the area to date. The paved R61, which is the only other primary access, was only completed in the late 1970's and early to middle 1980's. There has been no improvement in provision of access since then. Secondary and local road networks are inadequate, at best, where they exist or are non-existent.

The existing N2 and R61 tend to follow "watershed alignments" in order to avoid crossing deeply incised gorges and river valleys on the scale and extent of the "Valley of a Thousand Hills" and the Oribi Gorge in KwaZulu-Natal. Hence, the existing N2 is located up to more than 100 km inland (at Mount Frere) and reaches a height of approximately 1 700 metres above mean sea level at Brookes Nek before it descends to sea level at Port Shepstone. The R61, in turn, is located up to almost 60 km inland (at Flagstaff) and is at a height of about 1 000 m at that point. Access to the coast is poor where it exists at all. Access parallel to the coast is non-existent because of the deeply incised gorges and valleys. For example, in many cases it is only possible to drive between certain locations along the coast by first returning to the R61. This can involve a round trip of about 100 to 120 km, whereas the locations are often only 20 to 30 km apart. Not surprisingly, this region is one of the most impoverished areas in South Africa. The proposed project aims to improve access and linkage to the Wild Coast region while reducing road-user costs and optimising safety and socio-economic benefits.

The Wild Coast region has been identified as an area for strategic economic development in accordance with Government's Spatial Development Initiative (SDI) strategy. The Wild Coast SDI identified the provision of a major road, such as the proposed toll road, as an important catalyst for achievement of its objectives since it would enhance access to the region and would facilitate development of the eco-tourism potential of the area.

The existing N2 south of Mthatha requires major upgrades to fulfil its function as a primary national road between economic centres and to cater for rapidly growing traffic volumes. The existing R61 and N2 between Port Edward and Durban are currently in a good to fair condition. The section between the Adams Road and Isipingo interchanges is currently operating at or beyond its maximum Level of Service D capacity. Traffic growth in the medium- to long term is likely to induce unstable flow and thus severe congestion (stop-start conditions).

The proposed N2 Wild Coast Toll Highway aims to provide an improved, shorter and safer road link between the Eastern Cape/Western Cape and KwaZulu-Natal. A shorter, more efficient transport route is viewed as an improvement to the national road network and is considered of strategic importance to the region and the country as a whole. It is considered that such a national road or “spine” would provide the necessary linkages and impetus to improve the secondary and local networks while facilitating sustainable economic growth along the entire corridor.

SUMMARY OF KEY ROAD PROBLEMS ALONG THE EXISTING N2 AND R61 SECTIONS OF THE PROPOSED N2 WILD COAST TOLL HIGHWAY AND POTENTIAL BENEFITS TO THE ROAD USER

The key road problems currently experienced along the existing N2 and R61 sections of the proposed toll highway and the potential benefits of the proposed project to the road user are provided in Table 1.

Table 1: Current road problems along the existing N2 and R61 sections of the proposed toll highway and potential benefits of the proposed project to the road user

ROAD SECTIONS AND CURRENT PROBLEMS	POTENTIAL BENEFITS TO THE ROAD USER
GONUBIE INTERCHANGE TO NGOBOZI (77.9 km; existing N2)	
<ul style="list-style-type: none"> • Extensive deterioration of the pavement (rutting and cracking) on certain sections. • Some capacity problems at steep inclines. • Extensive pot-hole/patching repairs on certain sections. • Few climbing/passing lanes. 	<ul style="list-style-type: none"> • Improved riding quality. • Improved road user safety. • Reduced Vehicle Operating Cost (VOC).
NGOBOZI TO DUTYWA (52.6 km; existing N2)	
<ul style="list-style-type: none"> • Pedestrian and livestock traffic pose a safety risk in some areas due to proximity of rural settlements. • Conditions at Ndabakazi Intersection are very dangerous due to turning traffic and pedestrians. • Road markings very indistinct on the main street through Butterworth. • Large numbers of vehicles executing turns at intersections in Butterworth. • Large numbers of pedestrians in Butterworth. • Riding quality fair to poor. • Fencing and signage poor. 	<ul style="list-style-type: none"> • Improved capacity. • Improved riding quality. • Improved road user safety. • Reduced VOC. • Reduced travel time. • Improved safety for communities, pedestrians and other road users.
DUTYWA TO MTHATHA (84.7 km; existing N2)	
<ul style="list-style-type: none"> • Riding quality fair to very poor. • Road surface is extensively deformed with frequent potholes/patching repairs in some areas. • Many illegal accesses. • Surface is extensively deformed with widespread cracking over entire length and width between Viedgesville and Mthatha. • Large numbers of vehicles executing turning movements at intersections through Mthatha. • Large numbers of pedestrians in Mthatha. 	<ul style="list-style-type: none"> • Improved capacity. • Improved riding quality. • Improved road user safety. • Reduced VOC. • Reduced travel time. • Improved safety of communities, pedestrians and road users.

ROAD SECTIONS AND CURRENT PROBLEMS	POTENTIAL BENEFITS TO THE ROAD USER
MTHATHA TO NDWALANE (79.5 km; existing R61)	
<ul style="list-style-type: none"> Section of the route near Mthatha characterised by peri-urban development along the road corridor, which requires the formalisation of access and cross-access. Road in very poor condition in some sections. The route passes through an area of geotechnical instability in the mountain pass (Tutor Ndamase Pass). Culvert failure near Ndwalane in 2001. 	<ul style="list-style-type: none"> Improved road user safety. Improved and controlled access. Increased traffic capacity. Improved riding quality. Reduced VOC. Reduced travel time.
NDWALANE TO NTAUFUFU RIVER (16.5 km; new road section)	
<ul style="list-style-type: none"> Existing design speed is 40-50 km/h. 	<ul style="list-style-type: none"> Much reduced travel time since the proposed new route would be 12 km shorter than the existing pass between Ndwalane and Ntafufu. The alignment and design speed (100-120 km/h) of the proposed new route would also be far superior to the existing pass. Reduced VOC. Improved road user safety.
NTAFUFU RIVER TO LUSIKISIKI (18 km; existing R61)	
<ul style="list-style-type: none"> Design speed of existing road 40 km/h over certain sections to minimise initial construction costs. Pavement deterioration evident. Patches and cracks. 	<ul style="list-style-type: none"> Reduced VOC. Reduced travel time. Improved road user safety.
LUSIKISIKI TO MTHAMVUNA RIVER (80 km; new road section)	
<ul style="list-style-type: none"> No access or road link exists. 	<ul style="list-style-type: none"> Much reduced travel time associated with approximately 80 km shorter route. Reduced VOC. Improved road user safety. Provide access across major river gorges where none currently exists.
MTHAMVUNA RIVER TO ISPINGO INTERCHANGE (147.5 km; existing R61 and N2)	
<ul style="list-style-type: none"> Mthamvuna River to Southbroom section is characterised by frequent access points, which currently serve a number of coastal resorts and the more rural areas of KwaZulu-Natal. Sub-standard interchange at Adams Road. Capacity problems during peak periods between Adams Road and Isipingo interchanges. 	<ul style="list-style-type: none"> Improved road user safety. Improved access control. Reduced VOC. Reduced travel time. Improved riding quality. Alleviation of traffic congestion. Safer access at Adams Road Interchange.

2.2 BROAD DESCRIPTION OF PROPOSED PROJECT

It is proposed that the design, construction, financing, operation and maintenance of the proposed highway be undertaken as part of a 30-year Concession Contract. A detailed description of the proposed construction activities that would be undertaken in the various road sections during the Initial Construction Period (normally the first three years) of the concession is provided in Section 4.2 of the Final EIR.

The key components of the proposed project include:

- Upgrading and widening of existing road sections (of the N2 and R61) included within the proposed project (approximately 470 km);
- New road construction within two greenfields sections (approximately 90 km);
- Construction of nine new bridges;

- Upgrading and/or construction of new road interchanges and intersections; and
- Construction of associated structures (such as toll plazas, pedestrian overpasses and animal underpasses).

According to SANRAL, the proposed project aims to provide a national route that improves access and linkage to the east coast region of South Africa while reducing road-user costs and optimising safety, comfort and socio-economic benefits, through the following:

- Upgrading and/or construction of the route to an appropriate design speed (90 to 120 km/h) for the majority of its length, while maintaining a minimum of 60 km/h design speeds in short sections such as mountain passes (e.g. the Kei Cuttings);
- Construction of a two-lane single carriageway with wide shoulders, while dual carriageways and/or climbing lanes would be constructed where warranted by traffic volumes and safety requirements;
- Construction and maintenance of appropriate safety devices such as fencing and vehicular / pedestrian / livestock over- or underpasses and walkways while maintaining an attractive road reserve along the length of the route;
- Consolidation and formalisation of accesses onto the proposed toll highway in order to ensure road user safety (in terms of sight distances and provision of traffic turning lanes);
- Rehabilitation and overall improvement of the road surface along existing sections of the route;
- Installation and maintenance of road signage, road furniture and roadside emergency facilities; and
- Provision of a well-maintained road reserve along the length of the proposed route.

The proposed route alignment (refer to Figure 1) would connect various economic centres, including East London, Butterworth, Mthatha, Lusikisiki, Port Edward, Port Shepstone and Durban, and would be approximately 75 km shorter than the existing N2 route between East London and Durban via Mount Frere, Kokstad and Harding. Approximately 80% of the proposed route utilises existing road sections, as follows:

- Existing N2 between the Gonubie Interchange and Mthatha;
- Existing R61 between Mthatha and Ndwalane;
- Existing R61 between Ntafufu River and Lusikisiki; and
- Existing R61 and N2 between the Mthamvuna River and the Isipingo Interchange.

New road construction is proposed between Ndwalane and Ntafufu, and between Lusikisiki and the Mthamvuna River (“greenfields” sections). Within the new road sections, bridge crossings are required at the Mzimvubu, Ntafufu, Msikaba, Kwadlambu, Mthentu, Mnyameni, Kulumbe, Mpahlane and Mzamba rivers.

The following grade separation interchanges are proposed:

- Komga Interchange;
- Ndabakazi Interchange;
- Elliotdale Interchange;
- Viedgesville Interchange;
- Ndwalane Interchange;
- Ntafufu Interchange;
- Lusikisiki Interchange;
- R61 (Mthamvuna) Interchange;
- Port Edward Interchange;
- Southbroom Interchange; and
- Adams Road Interchange.

District road intersections would be upgraded along the entire route in order to provide turning slots and improve safety. Village and informal accesses would be closed and feeder roads constructed to provide access at new, safe and appropriate access points, with a minimum spacing of approximately 1 km between these accesses. Fencing, cattle grids, underpasses, overpasses, sidewalks and frontage roads would be constructed, where required, in order to improve safety and provide grade separation accesses across the route. Public transport lay-byes would be provided where required and where it would be safe and possible to do so. It is anticipated that such lay-byes would be provided at least at the existing major intersections. SANRAL has indicated that the exact location and number of underpasses, overpasses and public transport stopping points would be finalised in consultation with directly affected communities during the detailed design phase.

According to SANRAL, the Concessionaire would be required to provide a high standard of traffic accommodation during the construction phase. It is anticipated that the toll plazas would be built towards the end of completion of the proposed road upgrading/construction.

2.3 TOLL STRATEGY AND TOLL SECTIONS

The toll strategy and location of the plazas would be such that, as equitably as possible, the motorist would pay only for the extent of the road that is used. Consequently each plaza would have a unique toll applicable to each individual class of vehicle. The applicable toll tariffs would be within the norms currently utilised in South Africa.

The proposed N2 Wild Coast Toll Highway would include seven mainline toll plazas (four mainline plazas in the Eastern Cape and three in KwaZulu-Natal) and 24 ramp/interchange toll plazas (i.e. 12 sets of ramp plazas), of which one mainline and four sets of ramp toll plazas already exist on the N2 South Coast Toll Road (see Section 4.2 of the Final EIR). Mainline toll plazas are proposed as follows:

- To the north-east of the Kei River cuttings, just outside Ngobozi – the Ngobozi Toll Plaza;
- In the Bashee Bridge region, close to the Candu River – the Candu Toll Plaza;
- In the vicinity of Ndwalane – the Ndwalane Toll Plaza;
- Immediately north of the Mthentu River – the Mthentu Toll Plaza;
- The existing Oribi Plaza between Izotsha and Umtentweni;
- Just north of the Park Rynie Interchange – the Park Rynie Toll Plaza; and
- Just south of the Isipingo Interchange – the Isipingo Toll Plaza.

Ramp toll plazas are proposed as follows:

- Proposed Ndwalane Interchange (southern ramps);
- Shelly Beach Interchange (existing Izotsha ramp plazas);
- Marburg Interchange (existing Oribi northern and southern ramp plazas);
- Umtentweni Interchange (existing Umtentweni ramp plazas);
- Pennington Interchange (southern ramps);
- Park Rynie Interchange (southern ramps);
- Scottburgh Interchange (northern ramps);
- Umkomaas Interchange (northern ramps);
- Adams Road Interchange (southern ramps);
- Moss Kolnick Interchange (southern ramps); and
- Joyner Road Interchange (southern ramps).

Table 2 shows the proposed toll sections, the preferred mainline toll plazas, the possible lengths of the toll sections of the proposed project and a range of possible toll tariffs.

Table 2: Toll sections, associated mainline toll plazas and possible range of toll tariffs

PROPOSED TOLL SECTION	ASSOCIATED MAINLINE TOLL PLAZA	LENGTH OF PROPOSED TOLL SECTION	POSSIBLE RANGE OF TOLL TARIFFS (R) (2006 prices; Class 1 vehicle)		
			Low	High	Mid
East London to Butterworth	Ngobozi	97.8 km	17	46	28
Butterworth to Mthatha	Candu	120.8 km	21	57	35
Mthatha to Ntafufu	Ndwalane	92.3 km	16	43	27
Ntafufu to Southbroom	Mthentu	121.1 km	41	114	70
Southbroom to Hibberdene	Existing Oribi	50.1 km	9	24	15
Hibberdene to Winklespruit	Park Rynie	60.7 km	10	29	18
Winklespruit to Isipingo	Isipingo	16.2 km	3	8	5

NOTE: The possible ranges of toll tariffs given above are based on typical tariffs on existing similar toll roads in South Africa and as such are highly speculative. Tariffs are usually based on the length of toll road that is used. These tariffs also do NOT include regional or local discounts or frequent user discounts. It should be further noted that the possible toll tariff ranges provide some indication only as to what the potential toll tariffs at the various mainline toll plazas could be and are based on 2006 prices. Ramp toll tariffs are determined on a comparable basis. The actual toll tariffs when the toll highway is put into operation are subject to a competitive tender process and the Notice of Intent for Declaration of a Toll Road process, including the negotiation and determining of discounts before it can finally be approved and promulgated by the Minister of Transport.

3. THE AFFECTED ENVIRONMENT

The proposed N2 Wild Coast Toll Highway Project would be located in the eastern part of South Africa, and would traverse sections of both the Eastern Cape and KwaZulu-Natal provinces. The region is predominantly a summer rainfall area with most rains occurring in the spring and summer months (October to March). There is a gradation in climatic regime across the study area, with the northern part of the Eastern Cape experiencing cool sub-tropical conditions, while KwaZulu-Natal is classified as warm sub-tropical.

The general topography of the route is characterised by undulating to rolling terrain with deeply incised river valleys, particularly within the greenfields section between Lusikisiki and the Mthamvuna River (refer to Figure 3). The area inland of the coastal plateau is characterised by extremely broken and rugged mountainous terrain with widely eroded river basins. The terrain generally rises steeply inland (800 m at Holy Cross, 1 000 m at Flagstaff) to culminate in the 3 000 m high Drakensberg range some 200 km inland.

The proposed project would cross numerous drainage lines and rivers, ranging from low to very high importance. Estuaries along the Wild Coast have been identified nationally as having high botanical importance, include the Mngazana and Mbashe. Estuaries north of Port Edward, although more disturbed by development, are also reservoirs of biodiversity and play an important role in the ecosystem. No major wetland systems would be crossed by the proposed road alignment. In general, the wetlands along the route are small, occurring in the form of palustrine seepage slope systems due to the topography and geology of the region. A variety of Red Data Book fish species occur in the aquatic systems along the entire route.

The study area includes a variety of grassland, thicket and forest vegetation types. The greenfields section between Lusikisiki and Port Edward would bisect the Pondoland Centre of Endemism (PCE) and

would pass through sections of the proposed Wild Coast/Pondoland National Park. The PCE has been recognised by Conservation International, the IUCN and World Wildlife Foundation as one of 235 botanical global hotspots of plant diversity. A call for its protection has also come from the Strategic Assessment of Biodiversity in the Eastern Cape. The Pondoland Biosphere Reserve would extend from the north banks of the Mzimvubu River at Port St Johns to the south bank of the Mthamvuna River near Port Edward, an overall distance of about 80 km.

Faunal knowledge of the former Transkei region, specifically the proposed greenfields corridor, remains poor. Available information does indicate that within protected areas there is high faunal biodiversity and numerous endemic species. Outside of these areas, the fauna of this region is, in general, considered to be impoverished due to large-scale overgrazing and other human-induced impacts. The birds of the region are relatively well studied.

The Eastern Cape is one of the poorer provinces in South Africa, with a consistently higher unemployment rate than the national average and a relatively large rural population. It includes the former Eastern Province, Border, north-eastern Cape areas and the former “homelands” of Transkei and Ciskei. Major communities along the proposed toll highway include commercial farming communities, small rural towns (e.g. Dutywa), larger secondary and regional towns (e.g. Mthatha), “subsistence” rural villages and scattered communities typical of the Eastern Cape. Some of these communities are among the poorest in South Africa.

Tourism is an important economic activity in the two regions through which the proposed toll highway would pass. The Eastern Cape is the fifth most popular province visited by foreign tourists, whilst KwaZulu-Natal is the third, after Gauteng and the Western Cape. In the category of domestic overnight trips, KwaZulu-Natal is placed second behind Gauteng, while the Eastern Cape is placed third.

The planning, legal and policy context of the proposed project is provided at a number of levels, i.e. national, provincial, district, metropolitan and local. Various pieces of national legislation would be applicable to the proposed project. These include a number of permit requirements that would apply to specific aspects of the proposed project, such as development of borrow pits or quarries and potential water use activities. In terms of biodiversity conservation in the Eastern Cape, a number of strategic documents have recently been compiled under the Wild Coast Conservation and Sustainable Development Programme including, amongst others, a Conservation Assessment, Biodiversity Strategy and Action Plan and Strategic Environmental Assessment.

4. CONCLUSIONS: ASSESSMENT OF POTENTIAL IMPACTS

4.1 ASSESSMENT OF ROAD SECTIONS

The key potential negative and positive impacts that would result from the proposed works along the various road sections after implementation of the recommended mitigation and enhancement measures (residual negative and positive impacts) are given in Table 10. It can be inferred from Table 10 that the most significant negative impacts would be associated with the proposed new road in the greenfields sections of the proposed toll highway. The most significant residual negative and positive impacts assessed along the various road sections are listed below:

Most significant residual negative impacts along the various road sections

- Social impacts associated with reduction of access points onto the road between Ngobozi and Mthatha;

- Faunal impacts associated with loss of sensitive habitats during construction between Ndwalane and the Ntafufu River, and between Lusikisiki and the Mthamvuna River;
- Impacts on estuaries associated with improved access between Ndwalane and the Mthamvuna River; and
- Noise impacts associated with operation of the proposed toll highway between Ndwalane and the Ntafufu River, and between Lusikisiki and the Mthamvuna River.

Most significant residual positive impacts along the various road sections

- Social impacts associated with increased employment opportunities;
- Social impacts associated with improved livestock safety between the Gonubie Interchange and Lusikisiki;
- Tourism impacts associated with an increase in the number of tourism products between the Gonubie Interchange and the Mthamvuna River; and
- Social impacts associated with improved safety for vehicle road users between Ngobozi and the Mthamvuna River.

4.1.1 COMPARATIVE ASSESSMENT OF ALTERNATIVE ALIGNMENTS

COMPARATIVE ASSESSMENT OF THE COASTAL MZAMBA ROUTE VERSUS THE SANRAL PREFERRED ROUTE BETWEEN LUSIKISIKI (MTHENTU RIVER) AND THE MTHAMVUNA RIVER (refer to Figures 3 and 4)

The Coastal Mzamba route would offer a number of advantages over the SANRAL preferred route between the Mthentu and Mthamvuna rivers, in particular relating to its compatibility with the Wild Coast SDF's proposed Land Use Management Areas and lower potential social and visual impacts. Also, should uncontrolled ribbon development or attraction of settlements take place along the SANRAL preferred route, this would affect a greater proportion of the planned area for the proposed Wild Coast/Pondoland National Park and identified "nature tourism" zones.

In many other respects, especially in terms of direct, indirect and cumulative biophysical impacts associated with the presence of numerous source wetland areas, the Coastal Mzamba route is considered less favourable than the SANRAL preferred route. Key differences in this regard relate to loss and fragmentation of habitat and water quantity impacts on the indirectly affected estuaries.

Thus, the key factor to consider in selecting a preferred route is whether the relative importance attached to compatibility with the Wild Coast SDF's Land Use Management Areas and the additional area (4 %) of the proposed Park that would be incorporated east of the Coastal Mzamba route outweighs the likely direct, indirect and cumulative impacts on aquatic ecosystems that would be associated with this route. In terms of economic aspects, the economic specialist study calculated the Present Worth of Cost of the Coastal Mzamba route (R 1,597.91 million) to be marginally higher than the SANRAL preferred route (R1,587.59 million). Thus, from an economic (and technical - primarily associated with construction of a major road through numerous wetland areas) perspective the Coastal Mzamba route would be less favourable. However, irrespective of the selected route, it should be ensured that political and institutional will and capacity is developed to undertake pro-active and structured development planning, review and/or development of detailed Land Use Management Systems and liaison between Traditional Authorities and Municipalities with regard to allocation of land according to a common vision for ecologically sustainable development, if the proposed project is approved.