
EXECUTIVE SUMMARY

1. BACKGROUND AND PROJECT DESCRIPTION

Government is encouraging partnerships with private enterprise to raise monies to help achieve sustainable development in South Africa. One of the agreed ways that this can be done is by the South African National Roads Agency Limited (SANRAL) accepting “unsolicited bids” (which means private enterprise coming up with their own ideas, at their own risk) for developing toll roads at a national level.

The concept of the proposed N21 (R300) Cape Town Ring Road originated in 1995, as a result of increasing traffic causing the need to complete the construction of the current R300 through the Durbanville area. This concept evolved into a ring road that is proposed to improve the road network in Cape Town.

The main aim of developing a ring road is to provide road traffic in the greater Cape Town area with the choice of using a free-flowing, well maintained, route which bisects the highways and major arterials radiating from the central business district of the City (National Routes 1, 2, 7, M3, M5 and the West Coast Road). The road is initially to provide three free flowing lanes in each direction, with the option of developing further lanes (towards the middle axis of the dual carriageway) if so required in the future.

It is anticipated that such a route would allow easier access, and link development nodes between the northern and southern extremities of the city and central Cape Flats without needing to pass through and further congest the central areas of Cape Town. Such a route could also alleviate congestion problems experienced throughout the metropolitan road network within a 10 – 15km radius of the central business district (CBD) of Cape Town.

In addition, the authorities' shortage of funds necessary for road maintenance and upgrade led to the Peninsula Expressway Consortium (hereafter referred to as the Scheme Developer) submitting an unsolicited proposal in October 1998, (refer to Chapter 3 for details of this process) to the SANRAL. The South African National Roads Agency Limited and the National Roads Act, 1998 (Act No. 7 of 1998) allows for the construction and tolling of National Roads.¹

The proposed ring road in Cape Town would be developed and operated by a private business over a thirty-year time span. After 30 years, the proposed road would be handed over to the control of the SANRAL, which could then contract private enterprise again to continue running it. The costs of the development and running of the road would be covered by charging users of the road a fee, or toll, each time they used the road.

Initially, the proposal was to start the proposed route at the Westlake Interchange near Muizenberg and then follow the City of Cape Town's (CCT) previously planned routes such as the False Bay Coastal Arterial, the existing R300 from Vanguard Drive to Stellenberg Interchange on the N1 and the proclaimed Trunk Route 81/2 through to Melkbosstrand via the existing provincial road (MR43). During the Scoping Study a number of alternative alignments were investigated at the request of the local authorities. After due consideration, SANRAL and the proponent agreed to align the proposed project with Cape Town's Road network requirements. Thus two road sections that were planned and assessed by the CCT (or previous administrations thereof) were included in the project. These are the Bloubergstrand East-West Arterial planned by the then Blaauwberg Municipality (between the N7 and Otto du Plessis Drive), and the Cape Flats Freeway, an extension of the existing R300 from Vanguard Drive across the Philippi Horticultural Area to Prince George Drive. The then Cape Metropolitan Council planned this route for many years and conducted a comprehensive Environmental Impact Assessment (EIA) and Public Participation Process (PPP).

¹ The N21 refers to the section of road commonly known as the R300 between the N1 and the N2. Should this project proceed, the entire ring road would be called the N21.

Both these routes have received the necessary authorization or comment from the Provincial Department of Environmental Affairs and Development Planning (DEAD&P) (Appendix 1.A). It should be noted that tolling is not part of the CCT's' planning.

As planned in the Bloubergstrand East-West Arterial, the proposed route now ends near Big Bay in Bloubergstrand, intercepting the West Coast Road (R27) and Otto du Plessis Drive (M14) just south of the Bloubergstrand Conservation Area (BCA). The proposed road, for 65% of its length, uses existing roads and areas reserved by the government for new roads. The remaining 35% of its length crosses farmlands to the north of Durbanville. The central alignment of the proposed road focuses on the upgrade and extension of the existing R300.

2. ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

For this project, the national Department of Environmental Affairs and Tourism (DEAT) is the responsible decision-maker. However, it has been agreed between DEAT and the provincial Department of Environmental Affairs and Development Planning (DEA&DP) (formerly DECAS) that DEA&DP will provide comment to DEAT before a decision is taken on this proposed project.

During the Initial Scheme Development Phase (the first phase of the unsolicited proposal) for the proposed N21 (R300) Cape Town Ring Road, Chand Ecosense Joint Venture (CEJV) undertook a Scoping study as the first phase of the EIA in February 2000.

Scoping entailed identifying the significant issues associated with the project. Issues were gathered from the public via a public participation process and initial specialist input. Areas needing further investigation as raised in the Scoping Report are addressed in this Environmental Impact Report (EIR).

The Final Scoping Report was submitted to DEAT in October 2000 and acceptance of the Scoping study was granted on 14 May 2001.

Upon acceptance of the Scoping study, the next phase of the development process commenced with the following studies:

- Update of the traffic and tolling strategy study took place from January 2000 until the present;
- Preliminary engineering design took place from April 2002 until present;
- A botanical survey was commissioned in August 2000 to ensure that the fieldwork occurred during the appropriate season, and
- The impact assessment of the EIA was initiated in February 2002.

CEJV was appointed as an independent environmental consultant by the proponent to investigate the environmental impact of this proposed project. CEJV is represented by the following team:

- Sadia Chand BSc (Hons) Toronto, 1992; MPhil (Env Sci) Cape Town, 1994
- Desireé du Preez BSc (Forestry) Stellenbosch, 1987; MPhil (Env Sci) Cape Town, 1996
- Mark Sasman Nat Dip. Nature Conservation Pretoria, 1985; Pri. Sci Nat Technical,
- Emily Herschell BSc (Hons) Env Sci, Cape Town, 2000; MPhil (Architecture and Planning) Cape Town, 2001

This EIA predicts what the environmental effects or impacts would be of the development of a proposed road in Cape Town, and recommends how to avoid or reduce harmful effects where possible. It aims to provide adequate information to help the authorities to decide whether or not to allow the proposed road to be developed, and if so, under what conditions.

3. METHODOLOGY

The EIA phase itself consisted of specialist investigation based on the issues raised during the Scoping phase and through further public participation. The methodologies used to obtain this information are discussed below.

3.1 Specialist Studies

In order to address the key issues identified during the Scoping phase, fifteen specialist studies were commissioned and undertaken to identify and assess the possible impacts associated with the key issues and feasible alternatives. These included:

• Freshwater Ecology	Bill Harding	Southern Waters
• Geohydrology	Roger Parsons	Parsons and Associates
• Avifauna	Dave Pepler	Horus Wildlife Consultants
• Mammals	Kobus Jooste	Horus Wildlife Consultants
• Entomology	Dr H Geertsema	Independent Consultant
• Botany	Nick Helme	Doug Jeffery and Associates
• Herpetology	Atherton de Villiers	Independent Consultant
• Noise	Demos Dracoulides	Independent Consultant
• Archaeology	Jonathan Kaplan	Agency for Cultural Resource Management
• Planning	Jonathan Holtmann	Jonathan Holtmann and Associates
• Visual	Michelle Robertson-Swift	OVP and Associates
• Social	Shakti Malan	Independent Consultant
• Pedestrian Desire Lines	Gavin Ball	Independent Consultant
• Economic	Barry Standish	University of Cape Town
• Tourism	Jonathan Bloom	University of Stellenbosch

A more detailed list of the specialist studies and specialists is provided in Appendix 1.C.

Specialists were chosen as experts in their field. They were invited to a pre-appointment meeting in January 2002, at which the proposed project was presented and a multi-disciplinary discussion with the applicant, the proponent and CEJV took place.

An introductory field trip was also undertaken in February 2002, which permitted the team to view the study site with the knowledge of the key issues that had already been raised during Scoping. Terms of references were distributed in February 2002. These can be viewed in Appendix 1.D.

Specialists, in their terms of references, were supplied with a standard method with which to determine the significance of impacts to ensure objective assessment and evaluation, while enabling easier multidisciplinary decision-making. Refer to Appendix 1.E for this detailed methodology. Note that it was decided to adjust the method through changing the "consequence" column to the "significance" column. This was due to arguments that probability should not influence significance. For example, catastrophic events, (i.e. death, devastation) would be highly significant, even though the probability of such an event occurring would be low.

Once the first drafts of the specialists' reports were available, they were distributed to the specialist teams and applicant for a workshop that took place in June 2002. The main aim of this workshop was to collectively discuss and integrate initial findings so as to ensure synergy amongst individual specializations. This workshop also gave the proponent the opportunity to comment on recommendations and mitigation measures to avoid impractical, conflicting and unclear recommendations as well as to ensure they understood all issues and recommendations. Following this workshop, the alignment and design was adjusted to suit the initial findings from the specialists.

It should be noted that certain mitigation measures listed in the specialist reports may differ from those documented in this EIR due to:

- Synthesizing the individual specialist recommendations and integrating the mitigation measures;
- Identifying limitations with the assistance of the professional team associated with engineering feasibility and/or legislation.

4. PUBLIC PARTICIPATION PROCESS (PPP)

A comprehensive PPP was undertaken. Various methodologies were incorporated in order to elicit responses from as many I&APs as possible. Currently, there are approximately 1 500 I&APs on the database.

The following methods were used to inform I&APs of the EIA Process for this project:

- Distribution of Interim Newsletter;
- Compilation and distribution of a Background Information Document;
- Knock 'n Drop;
- Flyer handout;
- Advertisement of the EIA Process in local, regional and national newspapers;
- Contacting local municipalities and other authorities;
- Hosting Focus Group Meetings, Information Sharing Meetings and Open Houses; and
- Regular interaction and liaison with government departments and local authorities.

There are a number of issues raised by the I&APs that have been addressed by the specialists in this EIR. The consolidation of these comments are contained in Volume 2: Appendix 2L. Broadly, the comments received have been in relation to:

- Loss of biodiversity
- Decrease in property values
- Loss of sense of place
- Motivation for the road
- Increase in noise
- Visual impact
- Disruption of farming activities
- Affordability of the toll
- Impact of the road on the surrounding road network
- Threat of safety and security
- Inconsistencies in the EIA process

There were also I&APs in support of the proposed road.

For a detailed account of the PPP, refer to Volume 2.

5. ALTERNATIVES

In this EIA, the evaluation of alternatives included variations of the route in the north and south. Alternatives to road travel, such as rail or other forms of public transport are discussed, but not evaluated.

6. ASSUMPTIONS AND LIMITATIONS

6.1 Assumptions

The following assumptions have been made for the purpose of this report:

- All information received from sources contributing to this project is correct;
- The level of detail in terms of toll rates is limited due to confidentiality of information being released prior to the tender stage; and
- That the recommendations derived from this study would be included in the tender documentation and the EMP, for implementation where necessary through the winning tenderer.

6.2 Limitations

The following limitations were experienced during the study:

- Due to the nature of the tender process for BOT concessions, detailed design only takes place once the tender has been awarded. Thus, the information in this report relates to the preliminary designs of the proposed road;
- This study does not analyse the impacts of borrow pits as their locations have not yet been identified. This would be addressed by the preferred bidder prior to the financial closure;

- The following toll related issues are governed by the South African Roads Agency Limited and National Roads Act, 1998 (Act No. 7 of 1998). These are to be addressed by SANRAL in terms of the Intent to Toll process. Specific issues that were not addressed in this EIA include:
 - The biophysical impacts of toll plazas (Hindle Road, Swartklip/N2 Interchange, Stellenbosch Arterial, Stock Road) outside the road reserve along the existing R300 are currently being assessed by the relevant specialists and the results would be available during public review, and included in the Final EIR;
 - Assessment of alternatives relating to toll plaza numbers and the financial viability of different plaza locations;
 - The provision of specific recommendations regarding frequent user discounts or discounts to vulnerable communities; and
- Due to the competitive nature of the tender process, some information (such as possible toll tariffs) cannot be released by the Scheme Developer.

7. AREAS BEYOND THE TERMS OF REFERENCE OF THIS EIA

As this is a private sector proposal, public transport as an alternative is acknowledged and discussed, but not assessed.

8. PROPOSED N21 (R300) CAPE TOWN RING ROAD PROJECT: MOTIVATION

Road traffic in greater Cape Town area is becoming increasingly congested, and for longer periods of time each day (this affects commuters, and business and emergency and public transport vehicles). Further, the situation will get worse because road traffic in the Cape Metropolitan Area is predicted to increase in volume by 3% each year over the next 30 years.

8.1 Project Objective

The congestion ring results in serious delays and costs for those motorists who use routes such as the N1 and N2 to access/egress the Cape Town CBD, but also for those motorists whose trip origin or destination is not the CBD but who must pass through this congestion ring to reach their desired destination. Trips in this latter category include those motorists travelling between the northern areas and the southern areas of Cape Town, but depending on exact location, also includes trips between the north-east and south-west, the north and south-east etc.

At the same time, many of the roads are deteriorating, becoming bumpy and cracked, with potholes, and require repair. Each year, government allocates some money from taxes to the various roads department to repair, improve and build new roads, but there is already a funding short fall per year to achieve this (and this is aside from the additional funds required to maintain and expand the public transport networks in the CMA).

If the traverse trips can be accommodated by an alternative option which could offer a higher level of service, then not only would benefits accrue to these "transverse trip" motorists, but also to those motorists who continue to use routes such as the N1 and N2 to access/egress the Cape Town CBD. This can be reasoned since the removal of the transverse trips, many of which "double-load" sections of the freeway network radiating from the CBD, would result in improved operating conditions for the "more captured" N1 and N2 road users.

The objective in developing the proposed road is to attain the above goal.

The proposed road would be upgraded and maintained at an acceptable level of service over the 30-year concession period by the concessionaire (specified in terms of strict criteria related to available capacity, minimum delay etc.). Due to current funding constraints, there is no guarantee that the existing road network would be subject to maintenance and upgrading at the same acceptable level by the present controlling authorities. Should the proposed project not go ahead, it is anticipated that the existing road network is likely to become more congested than it is at present.

8.2 Importance Of The Proposed Route

The existing R300 forms an essential link between the N1 and N2, which are the two most important routes for commercial activity in Cape Town. Furthermore, the Philippi industrial area is situated approximately two kilometres north of the existing R300 along Stock Road, and a major transport hub for trains, busses and taxis is being constructed where Stock Road branches off from the R300. A traffic study of the existing R300, found that the predominant use of the route is for business purposes and work commuters. The existing R300 is an important route within the City's road network, and it supports economic activity.

In addition to the existing R300, the proposed road should improve transport efficiency in Cape Town, through linking the West Coast to the South Peninsula, and thus adding capacity to the current road network. It is estimated that upgrading and tolling the R300 would generate savings in network time of R89m in 2003 or increase network speed by approximately 2km per hour. This project combined with the proposed N1/N2 toll project, would generate network benefits to the value of R167m or increase network time by 3km per hour over the entire road network. As a result, users of the Cape Town road network would benefit from the project even if they do not travel on the R300, the N1 or the N2 (Standish, 2002).

9. FINANCIAL AND ECONOMIC VIABILITY

The current project proposal has been declared financially viable by Price Waterhouse Coopers, the financial advisors for the Scheme Developer. This viability is based on the traffic projections, cost projections and projected toll tariffs that were supplied by the Scheme Developer. It indicates that there is a demand for the project, which is derived from anticipated economic growth in the metropole. In addition, the proposed road could potentially aid economic development in the city (Standish, 2002).

The proposed project has the capacity to make a contribution to the GDP (Gross Domestic Product) of the country of about R500million each year during the first three years of construction. By the end of the concession period the contribution to the GDP could be as high as R940m with most of this stimulus coming from road user benefits. The proposed project has the capacity to make a cumulative contribution to GDP of over R17billion by the end of the concession period. The most significant contribution to GDP after the initial construction phase is the savings in road user costs. By 2022, these would make up the bulk of the contribution to the GDP (Standish, 2002).

It should be noted that when Build, Operate and Transfer (BOT) projects are developed, return on investment is capped and monitored in terms of the concession contract.

10. RATIONALE FOR TOLLING

10.1 Fuel Levy Allocation

The fuel levy was historically introduced as a dedicated road fund and was used for that purpose. However, in April 1987 fuel levies were incorporated into the Central Revenue Fund. The country's fiscal system does not earmark any taxes, which fall into a common revenue pool, and are then allocated through the political process. It also precludes revenue targeting. Revenues raised through a particular tax cannot be preserved for a single pre-specified use; instead they go into a central fund and are then allocated across all competing uses via the budgetary process.

Thus, despite widely held public belief, fuel levies are not automatically accrued to the SANRAL. To put this into context, the total amount paid into the national fiscus by road users is in the region of R26 billion per year (derived from the fuel levy, Road Accident Fund Contributions, customs and excise duties, VAT on new and second hand vehicle sales, VAT on vehicle parts and repairs, import duties on vehicles and parts, licence fees and VAT on toll fees). This is far in excess of the R6 billion for example spent by the state in 1998 on building and maintaining national and provincial roads and/or contributed by the State to the cost of metropolitan and municipal roads.

10.2 Budget Constraints

The SANRAL is currently responsible for development, maintenance and rehabilitation of approximately 9 400km of national road in South Africa. To this end, the SANRAL receives an

annual budget allocation from the National Treasury, but is also empowered to raise finance from the private sector. A vision document, "Horizon Twenty Ten", released by the SANRAL reports that for 2001 and 2002 their budget allocation was R585m and R900m, respectively. The report states that this funding is only sufficient to maintain about half of the non-toll national road network (5 300km), the remainder of which is falling into disrepair. The document states that with an assumed funding level of R800m a year for the non-toll national road network, the existing system will rapidly deteriorate over the next eight years to a forecast backlog of R8.5 billion (SANRAL, 2002).

Thus the SANRAL sees tolling as a viable alternative funding mechanism to create new road infrastructure and to upgrade and maintain National Routes where this is viable.

10.3 Road Maintenance Costs

Roads deteriorate over time, primarily due to traffic and environmental influences (i.e. weather, ultra-violet radiation, overloading etc.). For these reasons, roads have to be maintained throughout their design life in order to ensure that they deliver the performance envisaged.

If maintenance is performed as and when required (based on technical assessments) of the road, the road user will not observe any visible signs of distress on the road. The typical cost of maintenance at this stage is R0.1m per km (Year 2000 Rand Value).

However, if maintenance is not performed when required based on technical assessments and the road is allowed to deteriorate for a further three years, visible signs of distress on the road surface may become apparent to the road user. Maintenance at this stage of deterioration typically costs approximately R0.6m per km (2000 Rand value). By implication therefore, only one sixth of the length of road can then be repaired on the same budget. Should maintenance be delayed for five years, the typical cost per kilometre rises to approximately R1.8m. In other words, the cost of maintaining a road becomes 18 times more expensive if delayed by five years and only one eighteenth of the length of road can be maintained on the same budget, resulting in good roads further deteriorating and requiring additional capital for their maintenance.

The cost of inadequate road maintenance is primarily borne by the road user. When the condition of a road is allowed to deteriorate from good to very poor, each R1.00 'saved' on road maintenance increases vehicle-operating costs by R2.00-R3.00. This increases the cost of transport and raises the net costs to the economy as a whole (Standish, 2003).

11. SUMMARY OF FINDINGS

The urban area of the CMA has road reserves running through it, which are utilised by this proposal. The 'greenfields' areas traversed by the proposed road comprise of farmland and coastal wetlands. It has been found that some areas of road reserve and some of the greenfields areas have become significant for biological diversity protection and/or for recreation and environmental education. This is due to the fact that the demarcation of the road reserve (and thus the 'non-use' of it) has not disturbed the floral species therein.

It is anticipated that the majority of the impacts identified in this report can be mitigated to an acceptable level given that the SANRAL polices the successful tenderer (Refer to Tables A and B for a list of the social and biophysical impacts identified and their significance before and after mitigation). Those that remain of a high negative significance after mitigation include:

11.1 Social – High Negative Significance (Table A)

11.1.1 *Economic impact on the proposed False Bay Ecology Park (FBEP) in Sector 1*

The economic assessment notes that the proposed road could potentially impact on the viability of the proposed FBEP both beneficially and detrimentally. However until a decision is taken on the proposed FBEP, mitigation measures cannot be fully negotiated, and therefore the high significance after mitigation is not necessarily accurate.

The economic impact assessment also calculated that the monetary value of the economic benefits of the proposed project would outweigh the estimated monetary value of the wetlands that would be affected by the proposed alignment of the R300. However, it is not clear that a monetary comparison of costs and benefits is, in this instance, an appropriate comparison. The societal benefits of a road project are very different to the societal benefits of a wetlands area.

In the absence of the proposed False Bay Ecology Park (FBEP), the conclusion that could be drawn is that the proposed alignment in Sector 1 of the route is generally acceptable. Should the proposed FBEP go ahead, then it is clear that the proposed project would impact on it. What cannot be determined is the degree of the impact and whether the proposed alignment constitutes a 'fatal flaw' to the proposed FBEP. The key issue is whether the proposed FBEP and the proposed road could co-exist.

The issue about the proposed road alignment and the proposed FBEP is strategic decision that must be taken at a policy level.

11.1.2 Impact on sense of place of conservation areas in Sector 1

The sense of place of the conservation areas – Zandvlei, Zeekoevlei and Rondevlei – in Sector 1 could be affected. If efforts are made to limit noise and visual impacts as far as possible to these areas, sense of place could be preserved to a certain extent.

11.1.3 Anticipated changes in landscape character through agricultural landscape in Sector 3

From a visual perspective, the proposed road would change the character of the agricultural landscape through which it would traverse. The impact remains high after mitigation, as it would be experienced beyond the site boundary and it would be permanent. If implementation of all recommended noise and visual mitigation measures occurs, this impact would be limited to a small degree.

11.1.4 Visual impact from structures sited within agricultural land in Sector 5

The mainline toll plaza, proposed to be sited between the Vanguard Drive and Strandfontein interchanges, would have a high visual impact, as it would be sited within agricultural land, which has low visual absorption capacity. If the recommended mitigation measures are implemented, the impact could lessen over time.

11.2 Biophysical – High Negative Significance (Table B)

In terms of the negative impacts of high significance, the following were identified:

11.2.1 Aquatic Ecosystems: Road reserve north of the Westlake Wetland and Flora: Westlake Wetland Complex

From an aquatic ecosystem viewpoint, the anticipated impacts are the reduced buffer width and terrestrial habitat between the wetland and residential area and increased disturbance from the road on the wetland. From a botanical viewpoint, the anticipated impacts are the loss of wetland and associated plants, specifically the population of *Passerina paludosa* (a rare species), and the negative effects elsewhere in the system.

It should be noted that this area is located within a space dedicated for road reserve that is owned by the CCT (Refer to Table 6.1 in Chapter 6). The route through this area is included in the City's planned transport network (Refer to Figure 2.4 in Chapter 2) and would form part of any major road proposal in the south (e.g. upgrade of Baden Powell Drive).

11.2.2 Aquatic Ecosystems: Road reserve north of Zandvlei Bird Sanctuary and Flora: Loss of Cape Flats Dune Thicket north of Zandvlei Reserve

Impact on the aquatic ecosystems would occur through the loss of plants that do not occur elsewhere in the Zandvlei Nature Reserve, the small populations of mammals, the leopard toad and other frogs as well as the butterflies that utilize the area. In addition to this, are the impacts of reduced buffer width between Zandvlei and the urban area and disturbance from the proposed road on the wetland area identified. Botanically, the impacts would be loss of a strip of Cape Flats Fynbos/Thicket Mosaic vegetation.

Again, this area is located within a space dedicated for road reserve that is owned by the CCT (Refer to Table 6.1 in Chapter 6). The route through this area is included in the City's planned transport network (Refer to Table 2.4 in Chapter 2) and would form part of any major road proposal in the south (e.g. upgrade of Baden Powell Drive).

11.2.3 Flora: Corridor between Capricorn and Rondevlei Nature Reserve

The flora located in this area is important within the broader context of the biodiversity network of the City (Refer to Figure 4.1 in Chapter 4). It is, however, located in an area indicated as a proposed route on the approved transport plan for the City. It is important that this issue would be relevant to any of the proposed alternative alignments in this area (e.g. upgrade of Baden Powell Drive through the proposed Princess Vlei Parkway), although the significance of the impact may differ.

11.2.4 Flora: Loss of Cape Flats Dune Thicket in the area north of Strandfontein Suburb

The proposed road would impact on the edge of an area indicated as 'bionetwork remnant vegetation' by the City (Refer to Figure 4.1 in Chapter 4). This route is located in an area indicated as a proposed route on the approved transport plan for the City (Refer to Figure 2.4 in Chapter 2).

11.3 Social – High Positive Significance (Table A)

The following positive social impacts are anticipated should the proposed project be implemented:

11.3.1 Macroeconomic impact over the long term relevant to all sectors

The proposed road would have a positive effect on the GDP (R500m each year during the first three years of construction. By the end of the concession period, the contribution to GDP could be as high as R940m. The proposed project has the capacity to make a GDP of over R17 billion by the end of the contract period). In addition, it would create jobs during both the construction and operational phases. Furthermore, this project would contribute positively to the GGP (over R6 billion to provincial GGP by the end of the contract period). This translates into benefits for both the regional and national economies.

11.3.2 Traffic volumes over the long term in Sector 5

It is expected that as traffic volumes increase over time on the existing road network and, in the absence of major increases in carrying capacity, more and more road users would find that sector 5 is relatively cheaper to use than the existing road network. Traffic volumes would increase in this sector as a result of voluntary consumer choices.

11.4 Biophysical – High Positive Significance (Table B)

The following positive biophysical impacts are anticipated should the project be implemented.

11.4.1 Modification of subsurface seepage at Cape Flats Waste Water Treatment Works (CFWWTW) by the proposed road

Of high positive significance is the modification of subsurface seepage at CFWWTW by the proposed road. It is recommended that a subsurface agricultural drain be installed between the CFWWTW and Zeekoevlei if the proposed road is constructed. Such a drain has been recommended in previous studies of Zeekoevlei to reduce the seepage of enriched water from the CFWWTW towards Zeekoevlei.

There would not be any impact on groundwater if this issue is not mitigated; therefore the proposed mitigation is not compulsory for the proponent. Should the proposed road however be approved, it would be strongly recommended that the proposed modification be implemented to benefit Zeekoevlei, and to compensate for some of the other negative effects elsewhere on the vlei.

11.5 Overall Impacts

Should the recommendations from the specialists' investigations be implemented throughout the proposed route, it is anticipated that the majority of the impacts identified would be brought to an acceptable level.

12. UNRESOLVED ISSUES

There are three unresolved issues which the environmental team have noted. These are:

12.1 The Proposed False Bay Ecology Park (FBEP)

The proposed route through the proposed FBEP remains an unresolved issue. Should the FBEP become a reality at some point in the future, there would be an impact on it by the proposed road.

Of these impacts, the loss of sense of place could remain of high significance even after mitigation measures are implemented. While it is noted through the assessment, that the future viability of the park may be impacted upon, it is difficult to quantify this impact in any way, as the park is only at the proposal stage. The environmental team have made recommendations for the co-existence of the proposed FBEP and the proposed road in this area that could lessen the potential negative impacts, and possibly enhance positive aspects. Nonetheless, there has been no firm resolution with the proponents of the FBEP in this regard.

It should further, be noted that the proposed route through the proposed FBEP would remain on the transport plans for the City, in the event that the CCT require it as an option in the future.

It would appear in this circumstance, that a policy decision needs to be made regarding the co-existence of these two proposals. At this stage, the impacts have been identified and mitigation measures suggested in order for the two entities to exist together.

12.2 Impact Of Tolling On The Poorer Populations

There are certain sectors of the population that would be significantly affected by having to pay a daily toll rate. It should be noted that this category of potential users are impacted on in relation to the existing portion of the proposed road (the R300). Due to the urban nature of the ring road, users are given a choice of which route they could take.

The economic assessment noted that the overall impact of the proposed road is beneficial not only to individuals using the road, but to users of the entire network, and to the government at both a local and national level.

Although the economic assessment indicates that after mitigation (frequent user discounts), this impact, over the short-term, is considered to be of low significance, it remains emotionally significant. Given the urban nature of the proposed road, alternative routes would exist and no captive communities have been identified. The impact of tolling these commuters would need to be considered, and a decision taken by the Minister of Transport.

12.3 Tolling of Roads in the CMA and Western Cape Province

It should be noted that the CCT have yet to take a final decision on a policy regarding the use of tolling roads within the CMA (although Chapman's Peak Drive exists as a toll road within the CMA). In addition, the imposition of a fuel levy is currently being investigated by the Western Cape Province.

12.4 Mitigation, Management and Monitoring

Due to the competitive nature of the tender process related to the final phases of the Unsolicited Proposal Process it is difficult to assure the implementation of the recommended mitigation measures in this report. It remains the responsibility of the implementing authority, i.e. the SANRAL, to control the implementation of mitigation through the setting of terms and conditions in the tender process and the concession contract.

12.5 Government Issues

There are inadequacies in strategic level planning, implementation and decision making responsibilities. The most relevant include:

- The division of responsibilities between national, provincial and metropolitan environmental authorities in the approval of this project;
- The absence of a Cape Metropolitan-wide transport plan;
- The method of implementation of the Biodiversity Network strategy of the CCT's Integrated Metropolitan Environmental Policy (IMEP).

13. OVERALL CONCLUSIONS

Based on the specialist studies undertaken within this EIA, both benefits and negative impacts are anticipated as a result of the proposed project. The findings of this EIR have highlighted these impacts and prioritised them in terms of high, medium or low significance. While there are impacts of high significance that have been determined, these need to be seen in balance with the assessed socio-economic benefits. The authorities need to use this document to aid the decision-making process with respect to the future outcome of this proposal.