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## CHAPTER 1: INTRODUCTION

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This chapter commences with a description of the origins and history of the proposal for the N21 (R300) Cape Town Ring Road.

The development of this proposal has been undertaken alongside the Environmental Impact Assessment (EIA) process. The first phase of this process was scoping, which was completed in October 2000. This report documents the Environmental Impact Assessment, the next phase of the EIA process. This chapter describes the background, the EIA process, the terms of reference and the assumptions and limitations associated with this project. The manner in which this study has been approached and its methodology are also outlined. Finally, the structure of this report is given.

### 1.1 BACKGROUND

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.<sup>1</sup>

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

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<sup>1</sup> 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.

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). 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.

## 1.2 ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

This study has been undertaken in accordance with the requirements of the EIA Regulations promulgated in terms of the Environment Conservation Act, 1989 (No. 73 of 1989) (ECA) and the National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA). A broad meaning is given to the term 'environment' to include both biophysical and socio-economic (including cultural heritage) aspects of the proposed project.

In September of 1997, the EIA Regulations were published, in terms of the ECA, which provides for the control of identified activities, which may have a substantial detrimental effect on the environment. The Act prohibits the undertaking of such activities until written authorisation is obtained from the Minister of Environmental Affairs and Tourism or the relevant delegated authority.

The purpose of this EIA is to ensure consideration of the potential environmental impacts in the planning of the proposed road, in a way that enables the importance of the potential impacts and proposed mitigation of impacts to be properly evaluated. In addition, this EIA will assess alternatives and inform the planning process in order to optimise final proposals. This information is provided for the decision-making authority in order to ensure that informed decisions can be made regarding the proposed road.

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 (PPP) 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; January 2000 - present
- Preliminary engineering design; April 2002 - 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/SANRAL 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

In accordance with the EIA Regulations, a Draft Plan of Study for an EIA (Appendix 1.B) was submitted to DEAT in May 2001. This included a description of the environmental issues identified during the Scoping study, a description of alternatives to be addressed and a description of the proposed method of identifying and assessing the significance of potential impacts. DEAT, in consultation with DEA&DP, accepted the Plan of Study for EIA.

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.

In conjunction with the submission of the EIR, a Draft Environment Management Plan (EMP) would be compiled and submitted with the EIR prior to the Tender Phase to indicate how mitigation recommendations are to be addressed.

The EMP would contain:

- Communication structures
- Requirements for environmental training and awareness
- Legislative requirements
- Specifications for minimising environmental impacts
- Penalty and award systems
- Monitoring and auditing procedures
- Structures for proof of compliance with EIA recommendations.

During the Financial Closure phase, this EMP would be finalised to suit the detailed design and construction programming. In addition, an Environmental Management Programme Report (EMPR) would be compiled by the successful bidder to address environmental issues surrounding each quarry and borrow pit.

Table 1.1 shows the required legislative process for undertaking EIAs. In order to meet these procedural requirements, the following actions were taken:

Table 1.1: Procedural Requirements

ACTIVITY	DATE
Submission of Scoping report	October 2000
Acceptance of Scoping Report	14 May 2001
Submission of Draft Plan of Study for Impact Assessment	May 2001
Submission of Plan of Study for Impact Assessment	May 2001
Acceptance of Plan of Study for Impact Assessment	5 September 2003 <sup>2</sup>
Public Participation Process	March 2002–March 2004
Review of Draft Impact Assessment report	March 2004
Authority review of Impact Assessment report	April–June 2004

On completion of the EIR, DEAT will issue a Record of Decision (RoD). The RoD would either give authorisation for the project to proceed with conditions attached, or decline the project (“no-go option”). Should this proposal be authorised, I&APs will have an appeal period.

### 1.3 TERMS OF REFERENCE FOR THE EIA

The overall terms of reference for this report are to:

- Focus the environmental investigation on this unsolicited proposal;
- Assess the potential impacts of the proposed development on the environment and their implications for design, construction and operation;
- Include a public participation process in the study, which provides opportunity for I&APs to raise concerns/issues and to comment on the Draft EIR;
- Conduct a PPP along the Cape Flats Freeway Alignment and the Bloubergstrand East West Arterial so as to obtain inputs from I&APs on tolling;
- Commission specialist studies to assess key concerns identified during the Scoping study;
- Integrate all the information into an EIR to allow an informed decision to be made regarding the outcome of the proposed project; and
- Ensure the study complies with the requirements of the Environmental Conservation Act, 1989 (No. 73 of 1989) and the National Environmental Management Act, 1998 (No. 107 of 1998).

In addition, issues of a strategic nature such as the planning and implementation of public transport systems should be discussed but not assessed (Refer to Chapter 5). The areas of investigation should include the proposed route, alternatives including the “no-go” option and the tolling issues related to the Cape Flats Freeway (Philippi Route) and the Bloubergstrand East-West Arterial. Finally, the issues of tolling and the position of toll plazas are included in the public participation process.

### 1.4 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.

#### 1.4.1 Specialist Studies

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

- Freshwater Ecology
- Geohydrology
- Avifauna
- Mammals
- Entomology
- Botany

<sup>2</sup> It should be noted that a letter of comment was received on the Plan of Study for EIA and that a final document was submitted which was accepted by the authorities on a later date.

- Herpetology
- Noise
- Archaeology and Heritage
- Planning
- Social
- Pedestrian desire lines
- Economic
- Tourism

A 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 specialist 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 specialisations. This workshop also gave the applicant 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:

- Synthesising 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.

## 1.5 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.

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.

## 1.6. ALTERNATIVES

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

## 1.7 ASSUMPTIONS AND LIMITATIONS

### 1.7.1 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 where practicable in the tender documentation and the EMP, for implementation by the proponent and the winning tenderer.

### 1.7.2 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 (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 toll tariffs) could not be released to the public.

### 1.7.3 Special Note

In terms of the economic impact assessment, note that the calculations undertaken for compensation are the opinion of the specialist and that independent assessors would be engaged at the appropriate time.

### 1.7.4 Gaps In Information

- The CCT has not taken an official decision on the issue of tolling.
- A strategic decision by CCT on the future of the FBEP is awaited.

### 1.7.5 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.

## 1.8 STRUCTURE OF THIS REPORT

This EIR is presented in a number of volumes. These are:

- Volume 1: Environmental Impact Report (*this report*)
- Volume 2: Public Participation Process
- Volume 3: Biophysical Specialist Assessments, including Traffic
- Volume 4: Social Specialist Assessments
- Volume 5: Visual Impact Assessment

Volume 1 is structured as follows:

Chapter 1	Introduction
Chapter 2	Project Motivation
Chapter 3	The Development Process
Chapter 4	Legislative and Policy Requirements
Chapter 5	Project Alternatives
Chapter 6	Project Description
Chapter 7	Traffic
Chapter 8	Description of Baseline Environment
Chapter 9	Biophysical Assessment
Chapter 10	Social Assessment
Chapter 11	Evaluation and Conclusions