

**Briefing Memorandum:**

**Winelands Toll Road - South Africa**



**ICA Meeting:**

**Financing Transport for Growth in Africa**

**December 3-4, 2007**

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## 1. Summary

### 1.1 Introduction

“The Winelands Toll Road Project” consists of an upgrade of the N1 and N2 National Routes spanning 170km in the Western Cape, South Africa. The project is being tendered (through its Unsolicited Bid Policy) by the South African National Roads Agency Ltd (SANRAL), a road development organization established by the South African Government. SANRAL has agreed to a public-private partnership (PPP) agreement in which private sector investors would finance the rehabilitation and maintenance of the road in exchange for the rights to collect toll revenues.

During the concession period, the toll road concessionaire will be expected to rehabilitate, maintain and operate the roads in exchange for toll revenues. In addition, there is a contractual obligation to hand over the roads at the end of the concession period in a state that would ensure maintenance free operation of the road for the following 5 years.

Final environmental approval for the project is expected before the end of the year, after which the project can proceed to tendering.

The project rehabilitates two major links (route numbers N1 and N2) between Cape Town, one of the most economically vibrant cities in South Africa, and the remainder of the country. The roads are considered to be viable from an economic perspective and is considered a top government priority.

### 1.2 SANRAL

SANRAL is a not-for-profit independent company established by the government of South Africa under the South African National Roads Agency Ltd and National Roads Act 1998 as part of the government’s strategy to consolidate and expand the national roads network. It is listed as a national public entity under the Public Finance Management Act. The company’s sole shareholder is the South African Ministry of Transportation. SANRAL is responsible for the entire national road network of just over 16 000 km comprising both of toll and non-toll roads. It has two sources of funding: government grants for non-toll roads and borrowings from the capital markets for toll roads and, increasingly, through the use of PPP toll road concessions.

The stated objectives of the company include: to strategically plan, design, construct, operate, rehabilitate and maintain South Africa’s national roads and to generate revenues from the development and management of these assets.

## **2. Economic Rationale**

### **2.1 Financing Methods: Public vs. Private**

Roads in South Africa have historically been financed through the use of fuel levies. In April of 1987, however, fuel levies were incorporated into the Central Revenue Fund in line with the then government's policy of consolidating its revenues. Taxation revenues were no longer hypothecated for particular government programs. Instead, all revenues are put into a general budget and assigned from there according to priority. This means that income raised from the fuel levies cannot be directly appropriated to SANRAL but instead becomes a general revenue source for the government. While the intention has been to finance road construction through the use of these levies, at present only a small portion of the money raised in this manner is actually reinvested in road maintenance.

Road expenditure in South Africa is currently below the optimum level. The priorities of poverty reduction in the country, however, make the diversion of more funds to road maintenance and construction a lower priority for roads. However, the decline in expenditure on roads has been arrested and there has been a steady increase in the amounts allocated by the fiscus for non-toll roads over the last few years. Consequently, the government has begun to increasingly turn to the use of tolling as a means of financing road construction and maintenance.

The 2007 economic study of this road suggests that it will most likely be financed as a toll road. SANRAL has shown an interest in developing the road as part of a private concession.

### **2.2 Tendering Process**

The South African National Roads Agency and the National Roads Act 1998 (Act No. 7 of 1998) enacted official policies on the declaration, use and protection of national roads including:

- The Minister of Transportation may declare any existing road or any route, to be a national road;
- SANRAL may, with the Minister's approval, declare any existing road or any route, to be a national road;
- SANRAL may authorize, for a fixed period of time, any person to finance, plan, design, construct, maintain or rehabilitate a national road or portions thereof and to operate, manage and control it as a toll road for this purpose;
- The Minister, on the recommendation of SANRAL, determines any increase or reduction to the toll tariff charged on a toll road;
- SANRAL may grant exemption from the payment of a toll to certain users or categories of vehicles; and
- SANRAL may withdraw any of the above exemptions, restrictions or suspensions;

In May of 1999, in order to facilitate the use of private sector investment through the use of toll roads, SANRAL developed an Unsolicited Proposal Policy. Through this policy, the private sector is able to submit unsolicited proposals for the private development, maintenance, and operation of sections of the national roads with funding from toll collections.

Parties submitting an Unsolicited Proposal can be awarded Scheme Developer status by SANRAL should the project be viewed favourably. The Scheme Developer is then given an opportunity to develop its proposed scheme further in order to provide SANRAL with the necessary information to ascertain the financial, technical, and environmental feasibility of the proposal, before it is considered for open tender. Once the proposal has been approved, the Scheme Developer will be allowed to bid along with all other interested parties.

The two most attractive Tenders will be selected by the SANRAL. The promoters of these Tenders will be invited to make Best and Final Offers. Should the Scheme Developer's Tender not be among these, it will, however, be afforded the opportunity to also submit a Best and Final Offer, which will be evaluated along with those of the Selected Tenderers.

At no stage will the SANRAL disclose any information with respect to any of the other Tenders submitted to the Scheme Developer. From these will then be selected the Preferred Tenderer with whom the SANRAL will then enter into negotiations. This selection will be at the sole discretion of the SANRAL and the SANRAL will be under no obligation to select any Preferred Tenderer.

### 2.3 The Western Cape

The Western Cape produces approximately 16% of South Africa's national GDP. It has grown at a rate consistently above the national average, maintaining a rate of approximately 4% over the period 1990-2001. The bulk of the region's production comes from Manufacturing and Financial/ Business Services, with the former accounting for the largest share of the region's employment. The region is the second most urbanized province in South Africa with 87% of the population living in urban areas.

#### Western Cape Economy: Real GDP Growth, 1999-2004

	1999	2000	2001	2002	2003	2004
Western Cape GDP	4,2	4,5	4,2	4,2	3,5	5,3

The Cape Metropolitan Area contains roughly 75% of the Western Cape's population and GDP. The N1 and N2 are important connections linking Cape Town to the rest of the country. The roads are a top government priority.

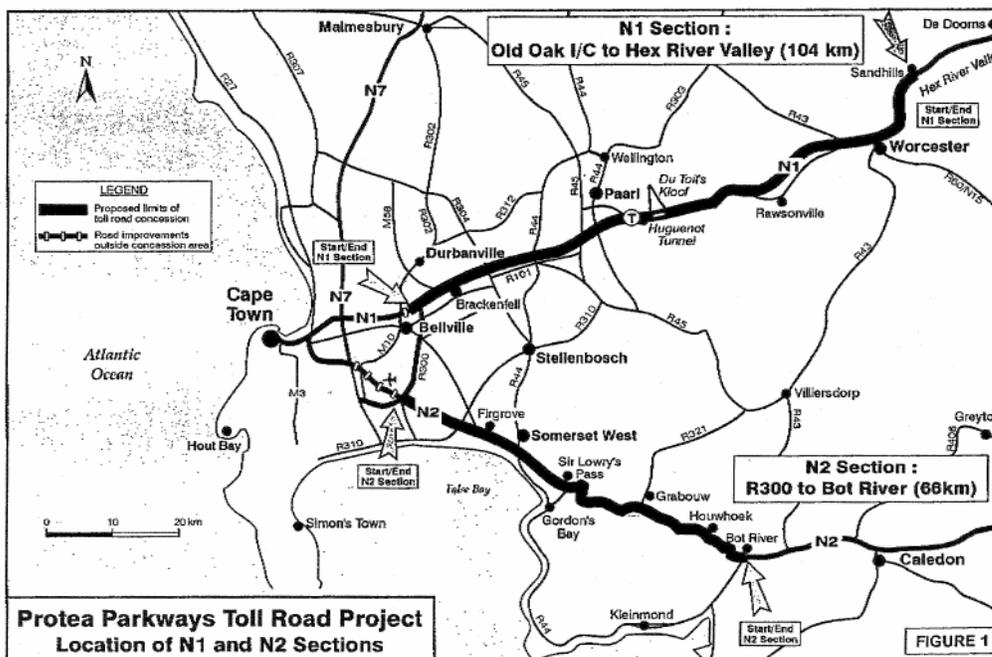
### 2.4 Effect on Country's GDP

The 2007 economic analysis determined that the proposed project could potentially contribute between R931.8m and R1.51bn per year to the GDP in the first three years, resulting in a cumulative contribution in excess of R4bn. By the end of the construction period the annual contribution to GDP from the toll road is expected to be R557m with a large part of the stimulus coming from business time savings. The proposed project has the capacity to make a cumulative contribution to GDP of over R14bn by the end of the contract period.

### 3. The Project

#### 3.1 Project Summary

The proposed Winelands Highway Toll Road is a combined project that would upgrade, maintain and operate the N1 and N2 (west of the R300 to De Doorns on the N1 and Bot River on the N2), and in some instances increase capacity. The N1 portion of the road extends over 105.8 km while the N2 portion of the road extends over 70.3 km. The project has been designed with a thirty year concession period in mind, which is standard practice in South Africa. The concession period is, however, unspecified and open to negotiation with SANRAL. In addition there is a contractual obligation to hand over the roads at the end of the concession period such that they are maintenance free for a further five years.



#### 3.2 The N1 National Route

The key projects for the N1 Construction Period (Years 1-3) consist of:

- Widening the existing N1 between Durban Road and the Old Oak Interchange to a six-lane divided road;
- The extension of the six-lane divided road to the Brighton Road Interchange;
- Upgrading of the Okavango and Brighton Road Interchanges;
- Realignment of the south ramps on the Joostenbergvlakte Interchange;

- Construction of a partial clover-leaf at the R304 Stellenbosch Interchange;
- Upgrade Florence Interchange to a full grade-separated interchange;
- A three-kilometre passing section in both directions that would be located along the section between the Klip River Bridge and the Klippedrift Bridge (west of where the N1 crosses the Breede River);
- Realignment of the R43 to tie in with the current R101 intersection (includes new structures over the Hartebees River);
- Worcester West Interchange- a grade separation interchange at the intersection of the R101 and the R43 (realigned);
- Worcester Casino Interchange- a grade separation interchange located to the east of the current Brandwacht Road intersection;
- An overpass at Roux Street and High Street;
- Worcester East Interchange- a grade separation interchange east of Worcester that would link into a proposed R60 Worcester Eastern Bypass;
- A frontage road linking the High Street Overpass with the Worcester East Interchange;
- Construction of a proposed Worcester Eastern Bypass would be undertaken on behalf of the local authority (Breede Valley Municipality);
- A new intersection at the N1/ De Wet intersection; and
- Capacity and percentage passing opportunity improvements for the Southern, Central and Northern Sections of the Hex River Port.

In addition, there are key elements for the balance of the concession period (years 4 to 30) which include:

- Additional lanes between Brighton Road Interchange and the Huguenot Toll Plaza;
- Rehabilitation and an asphalt overlay to the existing road pavement;
- In the medium term undertake the lining and ancillary works necessary to upgrade and commission the second Huguenot Tunnel; and
- A portion of the N1 between the Huguenot Tunnel Toll Plaza and the Hugo's River Viaduct would be widened to a five-lane cross-section.

### **3.3 The N2 National Route**

The key projects for the N2 Construction Period (years 1-3) consist of:

- Widening to six lanes between Vanguard Drive and the R300 Interchange;
- Installation of variable message signs and a fog warning system;
- The construction of the N2 Bypass (two-lane divided dual carriageway) through Helderberg on the expropriated road reserve. Seven alternatives have been assessed for the route alignment in the Helderzicht/ Paardevlei area;
- A full diamond interchange at Victoria Road;
- A full diamond interchange at the Firlands/ Sir Lowry's Pass Village intersection;
- Thirteen overpass/ underpass structures through Helderberg;
- Provide a 0.8 m wide painted median barrier and other safety improvements to Sir Lowry's Pass;
- Widen the road from the top of Sir Lowry's Pass to Houwhoek Pass from a two lane to a four lane undivided road;

- The construction of five grade separation interchanges at the following intersections:
  - Pineview/ Rockview Dam Road
  - Grabouw West Road/ Oudebrug Road
  - Grabouw East Road/ Viljoenshoop Road
  - Kromco/ Valley Road
  - Houwhoek
- Construction of a number of overpass or underpass structures to provide convenient and safe access across the N2 for local landowners/ communities;
- Provide alternative access arrangements for the roadside businesses;
- A system of frontage roads to provide a continuous link for local and tourist traffic between the Grabouw West and Houwhoek interchanges;
- Erection of heavy duty fencing along a section of route located adjacent to the Pineview area; and
- The rehabilitation of the existing Hermanus/ Bot River Interchange and the reconstruction of the Hermanus off-ramp overpass structure.
- The rehabilitation of the existing road and the construction of surfaced shoulders for a 1.5 km length of the R43 link from the Hermanus Interchange at Bot River towards Hermanus;
- The rehabilitation and addition of shoulders to the 5km section of the existing Viljoenshoop Road south of the N2;
- The construction of a system of link roads that has the potential to form a tourism route through the Houwhoek - Grabouw area. The local district authority would have to take responsibility for the maintenance of this facility.

In addition, there are key elements for the balance of the concession period (years 4 to 30) which include:

- Additional lanes in each direction between the R300 and Sir Lowry's Pass would be required in the medium term;
- Construction of a tunnel through Sir Lowry's Pass; and
- Rehabilitation and asphalt overlay to the road pavement.

### **3.4 Empowerment Strategy**

An empowerment strategy would be a requirement of the concession contract. The goal of this strategy would be to maximize job opportunities for local people and to promote the involvement of local entrepreneurs, particularly Previously Disadvantaged Individuals ("PDIs") and Small Medium and Micro Enterprises ("SMMEs") during all phases of the project.

The following would be awarded to SMMEs and PDIs:

- Approximately 20% of the value of the design and construction work;
- Approximately 30% of the value of the Operation and Maintenance work for the first half of the Concession Contract; and
- Approximately 80% of the value of the Operation and Maintenance work for the second half of the Concession Contract.

Preference would be given to local labour. In this regard, both the main contractor and the Concessionaire must consult with local community structures in identifying suitable candidates for employment in the project. Education training and development would be included as part of the proposed project.

### 3.5 Environmental and Social Impacts

The Ministry of Environmental Affairs and Tourism authorised an environmental impact analysis (“EIA”) that was conducted by the Protea Parkways Consortium and completed in December of 2002.

The Western Cape is home to one of the smallest and richest of the World’s six floral kingdoms. It is widely recognized to be an important site in terms of its natural biodiversity and beauty. The N1 and N2 also cross a number of rivers. The N1 crosses the Lourens River which is a Protected Natural Environment in terms of the Environment Conservation Act of 1989. The N2 crosses several rivers that have been declared Special Standards Rivers by the Department of Water Affairs and Forestry; including the Molenaars, Hex, Eerste, and Lourens Rivers.

The EIA for the project noted a number of environmental effects, but concluded that with mitigation measures, the impact of the project could be reduced to low to moderate levels.

Appeals of the decision to approve the EIA were launched with five main concerns being raised:

1. Dissatisfaction with the process followed;
2. In-principle opposition to tolling of the N1 and N2 in the Winelands area;
3. Concerns about the consequences of tolling. In particular potential diversion of traffic to the R44 to avoid paying toll fees and the impacts of such diversion on the local communities and environment;
4. Dissatisfaction with the EIA process and procedures, and with some of the conditions of the Record of Decision; and
5. Concerns about the impacts on communities in the Helderberg area where the N2 will bisect and fragment the Helderzicht community.

In October 2005, the Minister of Environmental Affairs and Tourism upheld the Ministry’s previous decision to approve the EIA in all cases with the only exception being the concerns of the Helderberg community, where he proposed mitigating effects including:

- the diversion of portion of the N2 Highway, encompassing a 150 m area from west of the town’s schools and houses up to the Victoria Street Interchange, to an underground “cut and cover” bridge;
- Landscaping the land above the tunnel for open public space;
- Building a pedestrian bridge over the existing N2, which would link Helderzicht with its local school;
- Developing sporting facilities and infrastructure for two of the affected schools;

- Transferring the title deeds of the church (which SANRAL holds) to the church; and
- The building of a new church hall.

#### 4. Feasibility

##### 4.1 Traffic Growth

Traffic growth along the N1 has historically varied between 2.0 and 6.1 percent per year; whereas traffic growth along the N2 has varied from 3.6 to 5.2 percent per year.

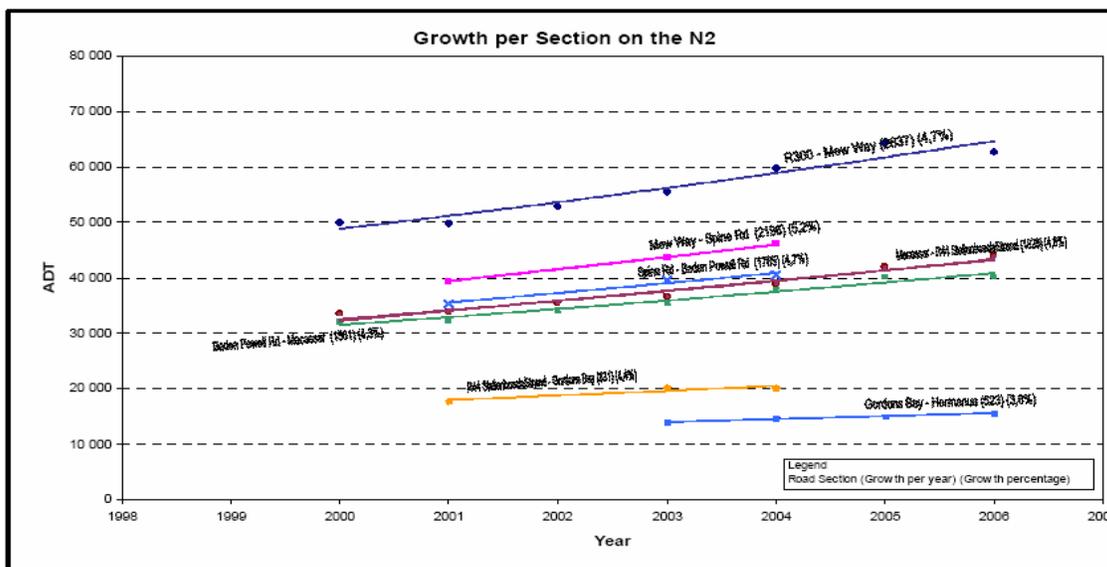


Figure 5: N1 Historical Growth Patterns per Section

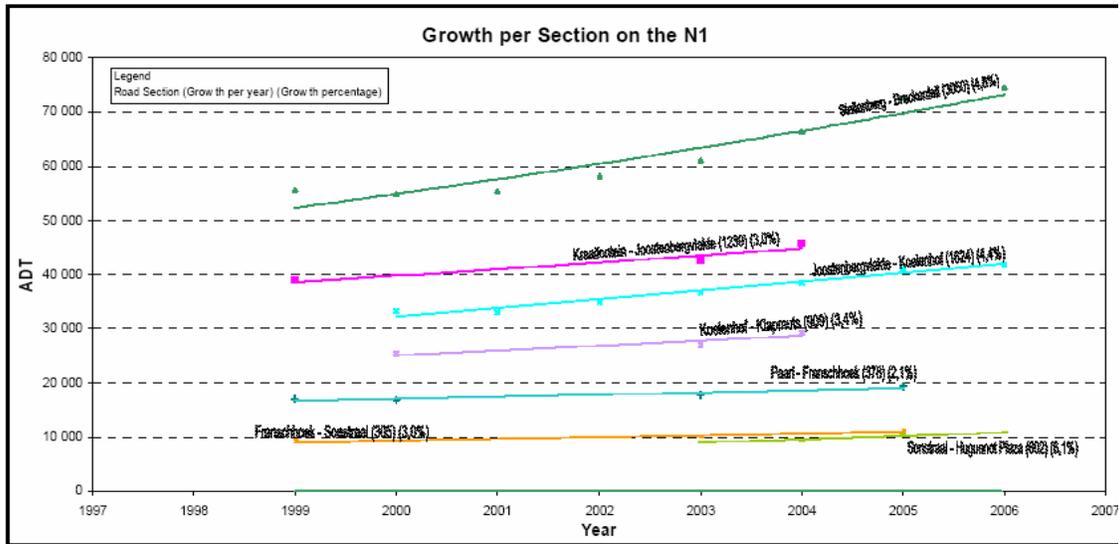
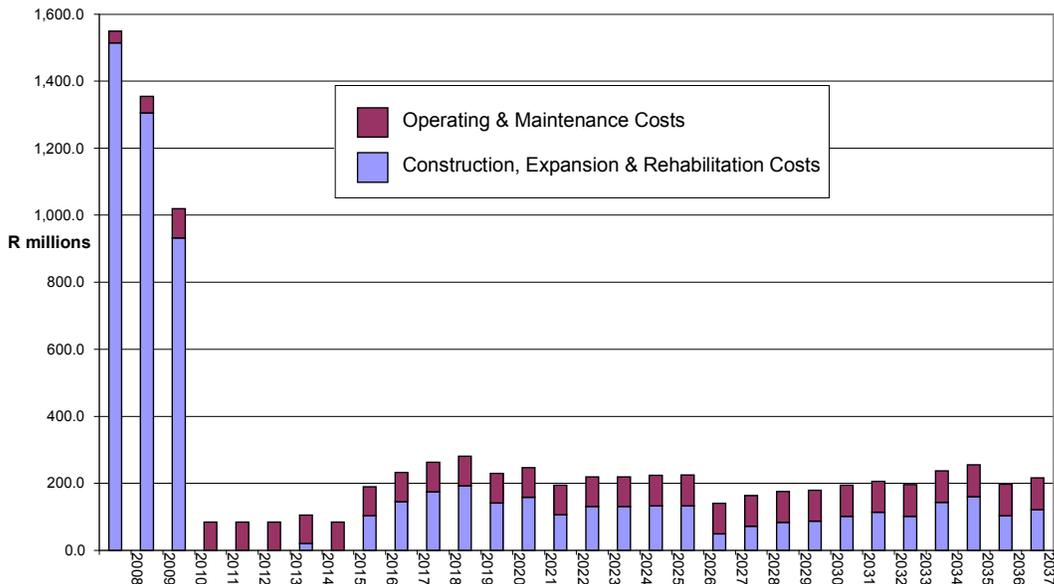


Figure 6: N2 Historical Growth Patterns per Section

#### 4.2 Estimated Project Costs

The 2007 economic impact assessment estimated that the total construction costs over the initial 3 year construction period would be somewhere between R3.5 billion and R 4 billion (USD 517 million to 590 million). This would be followed by a 27 year period of operations and maintenance work, which includes less significant construction and rehabilitation costs (see graph below).



SANRAL has updated information that estimates the project costs at R 2.8 billion (approximately USD 418 million). A detailed cost estimate has been undertaken, but is currently not available for public use. More information will be made available once the tendering process has officially begun.

#### **4.3 Toll Implementation Strategy**

Two alternate tolling mechanisms were explored in the 2007 Economic Impact analysis- a traditional Toll Plaza method and the use of electronic Open Road Tolling. The report concluded that both options were economically viable, but that the Open Road Tolling method was the preferred option because of the reduced labour costs associated with that mechanism.

The toll tariffs and discounts would only be fixed and negotiated with SANRAL after tenders for the concession contract were submitted. Each party tendering would submit its proposed tolling strategy, including special discounts. It is common practice in South Africa to offer discounts to certain user groups. Common methods include discounts to frequent users, local users, and discounts based on the time of day that the road user passes through the plaza. These discounts are negotiated between the concessionaire and SANRAL.

Upon being awarded the concession contract, the concessionaire becomes responsible for the operation and maintenance of the road for the duration of the contract. This would entail responsibility for toll collection, toll plazas, traffic management, overloading control, traffic and pedestrian safety and maintenance of all aspects of the road and road service.

### **5. Development Status**

#### **5.1 Project Background**

In March 1998 the Protea Parkways Consortium (“the Consortium”) submitted an unsolicited proposal to SANRAL to upgrade, construct, maintain, operate and toll portions of the N1 and N2 National Routes in the Western Cape. The proposal process was formalized after two years and the Consortium was awarded Scheme Developer status in April 2000.

In 2002 Protea Parkways and SANRAL commissioned a study on the socio economic impact of the proposed toll roads. Recently, SANRAL commissioned an update, *The Economic Impact of the Proposed Winelands Toll Road Project*, which was completed by the University of Cape Town’s Graduate School of Business in October of 2007.

The updated report has found that many of the road sections along the N1 and N2 are approaching the end of their design life. Parts of both the N1 and the N2 are already showing signs of deterioration with uneven surfaces and road cracking. Current traffic volumes are congesting certain sections of the roads, leading to longer journeys and greater risks of accidents. This problem is only likely to increase as forecasts in traffic growth indicate the likelihood of serious congestion along many sections of the roads. The report shows that the N1 and N2 need rehabilitation and capacity upgrades in the very near future.

## **5.2 Current Status**

SANRAL has expressed its interest in advancing the Winelands Toll Road project as a private concession. Before the tendering process can begin officially, however, SANRAL must get final authorization from the Ministry of Environmental Affairs and Tourism. SANRAL submitted the Winelands Toll Road project for approval in early November. The Ministry has promised a final decision within 30 days. Until the project receives authorization from the Ministry, no tendering documents will be released.

The tendering documents contain more information regarding the project including detailed construction costs and past traffic patterns. Those wishing to submit tenders for the project will be responsible for developing future traffic predictions and revenue estimations.

## **6. Project Contacts**

### **6.1 SANRAL Contact**

The project contact at SANRAL is Mr. Nazir Alli, CEO. He can be contacted through his personal assistant Susan Silva:

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