

PROPOSED UPGRADE OF NATIONAL ROAD R573 SECTION 1 FROM BAVIAANSPOORT ROAD (KM 2.4) TO NORTH OF PWV2 INTERCHANGE (KM 8.94), GAUTENG PROVINCE



BACKGROUND INFORMATION DOCUMENT & INVITATION TO COMMENT

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AIM OF THIS DOCUMENT

The purpose of this document is to ensure that **people interested in or affected by the proposed project** are **provided with information about the proposal, the process being followed** and **provided with an opportunity to be involved** in the Basic Assessment and Water Use Authorisation processes.

Registering as an **Interested and/or Affected Party (I&AP)** allows individuals or groups the opportunity to **contribute ideas, issues, and concerns regarding the project**. I&APs also have an opportunity to **review all reports and submit comments** on those reports. All comments received are included in the reports submitted to the Competent Authorities (the National Department of Forestry, Fisheries and the Environment [DFFE] and Department of Human Settlements, Water and Sanitation [DHSWS]).

THE PROPONENT

The South African National Roads Agency SOC Limited (SANRAL) is a South African parastatal, which operates in terms of its founding legislation, The South African National Roads Agency Limited and National Roads Act (Act No. 7 of 1998). As such, SANRAL is mandated for the financing, management, maintenance and development of South Africa's national road network. The South African government, represented by the Minister of Transport, is the sole shareholder and owner of SANRAL. In order to maintain and upgrade the above mentioned R573-1, SANRAL have appointed KBK Engineers (Pty) Ltd to provide consulting engineering services in respect of the assessment, design development, tender documentation and construction monitoring of the project works. KBK appointed Coastal and Environmental Services (Pty) Ltd. (CES) as the Environmental Assessment Practitioner (EAP) to apply for the necessary Environmental Authorisations (EA) and Water Use Authorisation (WUA) for the abovementioned project.

ENVIRONMENTAL ASSESSMENT PRACTITIONER

CES is specialised in environmental and social impact assessments and environmental management. The company was established in 1990 when we were involved as lead consultants for a large mineral mining Environmental Impact Assessment (EIA) in South Africa, and since completing that first EIA, we have expanded our scope of work to provide a wide variety of environmental and social advisory services to public and private-sector clients both within South Africa and internationally.



PROJECT DESCRIPTION

The South African National Roads Agency SOC Ltd. (SANRAL) propose the upgrade of R573 Section 1 (R573-01) from Stormvoël Road (KM 0.0) to the Gauteng / Mpumalanga Border (approximately KM 48.6). The greater project route has been divided into seven (7) construction phases, which will include:

- The development of new four- to six-lane road sections within existing and new road reserves;
- The development of road reserves of widths between 62 m and 80 m wide;
- The possible development of at grade and, in some cases, grade separated intersections; and
- The alteration of existing accesses to adjacent land.

The phases of the greater project route are described below:

Phase 1:

- Construction of the R573-1 between Stormoël Road (km 0.00) and Baviaanspoort Road (km 2.32) as an urban 4-lane undivided dual carriageway;
- Extension of Baviaanspoort Road to link with the urban streets to the east of the R573-1; and
- Construction of the Moepel Road Overpass.

Phase 2:

- Phase 2A:
 - The construction of the R573-1 just North of Sefako Makgatho Drive (km 4.10) to km 8.94 as an urban 4-lane undivided dual carriageway (6-lane for Preliminary Design layout); and
 - The construction of the PWV2 link from the R573-1 (km 0.00) to the N1/N4 Interchange (km3.20) as an urban 4-lane divided dual carriageway (Figure 1)
- Phase 2B:
 - The construction of the R573-1 from De Wagendrift North (km 37.80) to the Gauteng/Mpumalanga Border (km 48.30) at Moloto as an urban 4-lane undivided dual carriageway (6-lane for Preliminary Design layout), including the new interchange / access development at the Big Tree Mall.

Phase 3:

- Phase 3A:
 - Construction of the R573-1 from Baviaanspoort Road (km 2.32) to Sefako Makgatho Drive (km 4.10) as an urban 6-lane undivided dual carriageway;
 - Construction of the R573-1 / Sefako Makgatho Interchange as a Diverging Diamond Interchange layout; and
 - Construction of the R513-1 (Sefako Makgatho Drive) upgrades from km 0.20 to km 1.6 (Figure 2)
- Phase 3B:
 - Construction of the R573-1 from Kameelfontein Street (km 20.90) to km 31.30 as a rural 4-lane undivided dual carriageway (6-lane for Preliminary Design layout).



Phase 4:

- Phase 4A:
 - Construction of the R573-1 from km 31.30 to De Wagedrift North (km 37.80), including the realignment of the R573-1 around the De Wagedrift business node area, as a rural 4-lane undivided dual carriageway (6-lane for Preliminary Design layout).
- Phase 4B:
 - Construction of the R573-1 from km 8.94 to Kameelfontein Street (km 20.90) as a rural 4-lane undivided dual carriageway (6-lane for Preliminary Design layout).

The current phases (**Phase 2A and 3A**), include the upgrade of the R573-01 from Baviaanspoort Road (KM 2.4) to north of the PWV2 interchange (KM 8.94), located within the City of Tshwane Metropolitan Municipality, Gauteng Province. The major aspects of these phases include the following:

Table 1: Proposed upgrades for Phase 2A and 3A of the R573-1 project

SPECTS	PHASE 2A	PHASE 3A
Extent of upgrade	From just north of Sefako Makgatho Drive (KM 4.10) to KM 8.94 as an urban four- to six-lane undivided dual carriageway, located within the City of Tshwane Metropolitan Municipality, Gauteng Province	From Baviaanspoort Road (KM 2.32) to Sefako Makgatho Drive (KM 4.10), Sefako Makgatho Interchange and Upgrades on R513-1 Sefako Makgatho Drive (KM 0.20 to KM 1.6), Gauteng Province.
Realignments	Reconstruction of the existing R573-1 pavement in accordance with the required horizontal and vertical realignments required;	
Main carriageway (R573-01)	Widening or new construction of the road formation to implement a four-lane (six-lane for preliminary design and land acquisition requirements) dual carriageway cross-section divided by means of a concrete median barrier for a total surfaced width between 21.2 m and 33.4 m. Pedestrian walkways and cycle paths will be provided on both sides of the R573-1 along the road reserve fences.	Reconstruction, widening or new construction of the road formation to implement a 6-lane dual carriageway cross-section divided by means of a concrete median barrier for a total surfaced width of 33.4m. Pedestrian walkways and cycle paths will be provided on both sides of the R573-1 along the road edge.
Municipal streets	Rehabilitation and new construction of various municipal streets;	
Interchanges	Construction of three (3) urban "mini" grade-separated interchanges; Construction of the new N4-9 (PWV2) link between the N1/N4 interchange and a new interchange at the R573-1/N4 Moloto Road, including upgrades to the N1/N4 intersection and a new interchange at the R573-1/N4 intersection (Note: A separate application for Environmental Authorisation will be submitted for this section);	Rehabilitation and widening of the R513 Sefako Makgatho Drive; Construction of the R513/R573 Sefako Makgatho grade-separated interchange;
Road reserves	Widening and amendment of existing road reserves, including land acquisition;	
Existing services	Extensive relocation of services e.g. main sewer lines, water lines, electrical overhead lines;	
Access road alterations	Amendment to existing access layout to various properties, including the closure of some access positions and the construction of new access positions;	



SPECTS	PHASE 2A	PHASE 3A
Stockpile areas	Stockpile areas and vegetation clearance outside road reserve in excess of one hectare;	
Drainage, culverts and bridges	<p>Widening and construction of new river bridges as well as major and minor culverts;</p> <p>Regarding lesser culvert requirements along the project section, it is recommended that:</p> <ul style="list-style-type: none"> • Most of the lesser culverts be removed and replaced with new design culverts; • All retained culverts be lengthened in accordance with new cross-sections; • All the 300 mm and 450 mm diameter pipe culverts be replaced with new minor culverts according to SANRAL’s minimum size requirements for a Class 2 road (600 mm diameter up to 30 m long and 900 mm over 30 m long); • Some additional culverts are required, particularly along the new municipal streets; • Structural damage to culvert inlet and outlet structures be repaired if the culvert will be retained; • All inlets and outlets should have day-light channels constructed and should be cleared of any material or vegetation obstructing water from flowing freely; and • Erosion protection should be installed at the inlets and outlets of some of the minor culverts where required or where new channel outlets are constructed. <p>It is further recommended in terms of surface drainage elements that:</p> <ul style="list-style-type: none"> • Existing earth side drains be reshaped and cleared of all excess material and vegetation to ensure proper drainage. Excessive removal of grass should be avoided as the grass provide protection against erosion; • The increase in road level will aid in side drain hydraulic performance; and • It is expected that concrete kerb-and-channel combinations and side drains will be required along most of the project section due to the urban environment and pedestrian walkways located on both sides of the road. Subsurface drains will also be required below all concrete lined side drains. 	
Material sourcing	All required materials to be used in the road construction works will be obtained either from commercial sources or from borrow pits and quarries opened for adjacent construction projects.	

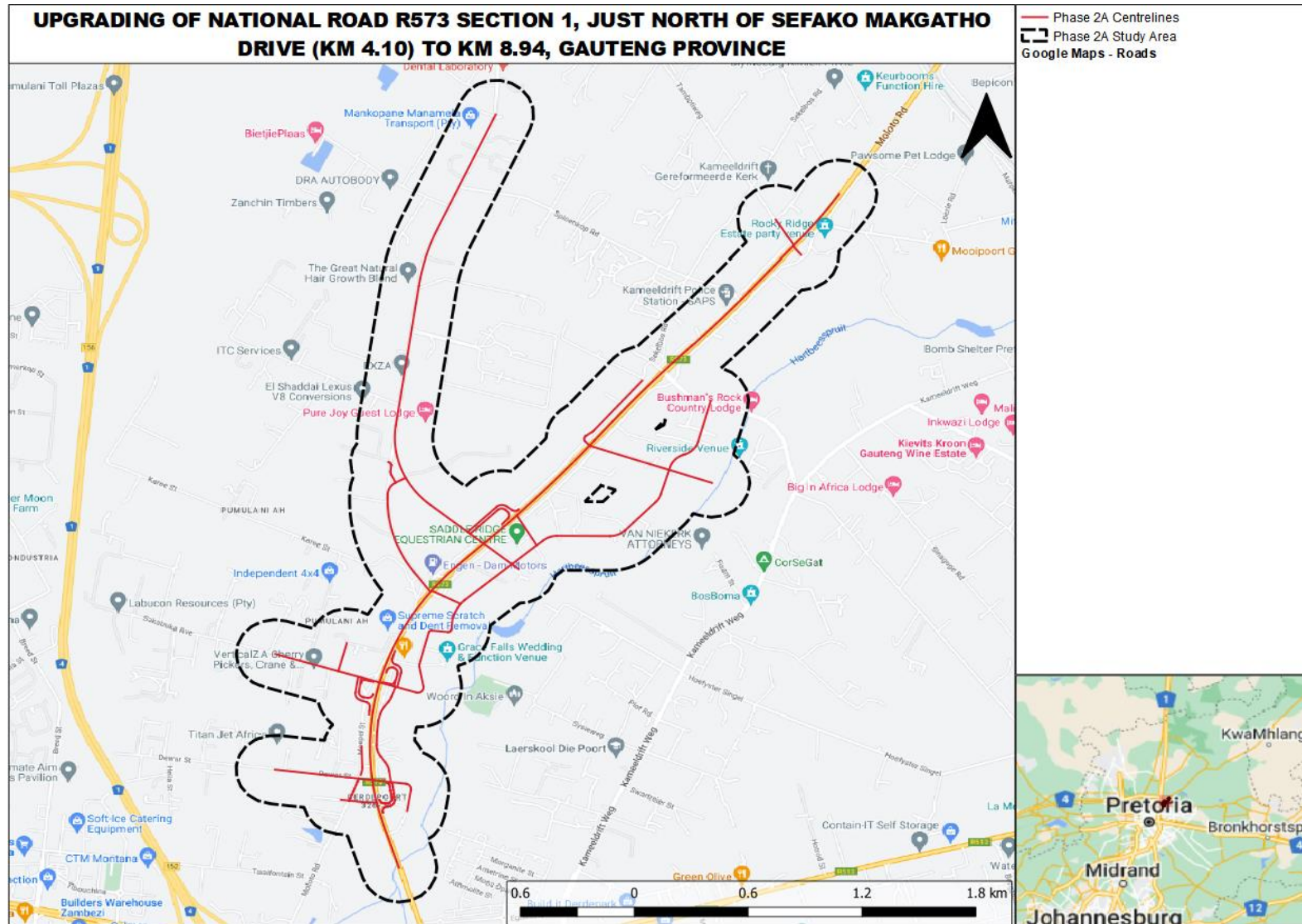


Figure 1: Proposed SANRAL SOC Ltd National Route R573-01 Phase 2A Study Area.

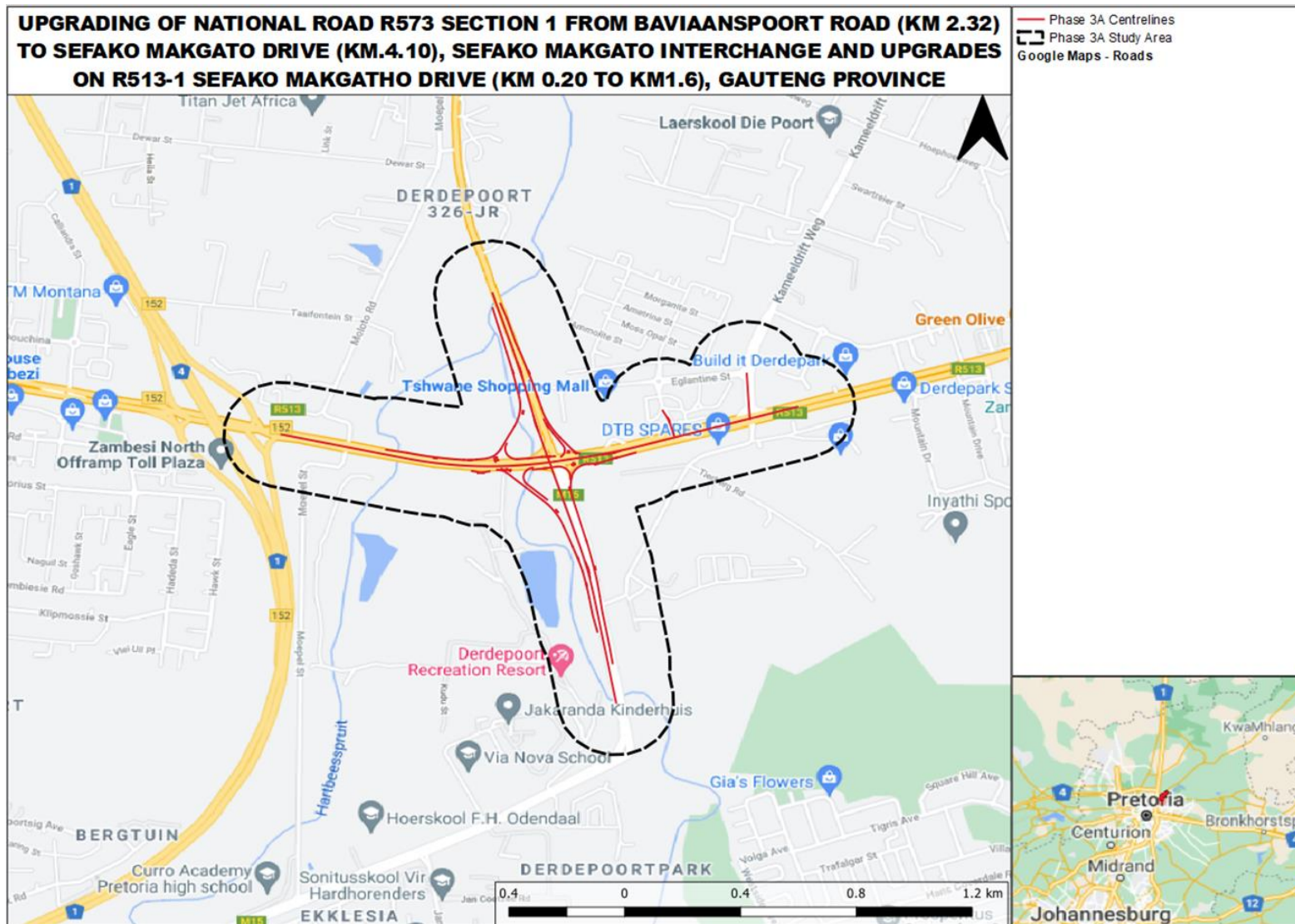


Figure 2: Proposed SANRAL SOC Ltd National Route R573-01 Phase 3A Study Area



RELEVANT LEGISLATION

In terms of the South African Environmental Legislative Framework, the project will be subject to an Environmental Authorisation (EA) process which is governed by the National Environmental Management Act (NEMA - Act No. 107 of 1998 as amended). The process entails undertaking either a Basic Assessment (BA) or a full Scoping and Environmental Impact Assessment (S&EIA) in accordance with the NEMA Environmental Impact Assessment (EIA) Regulations set out in Government Notice R.982 (as amended). The EIA Regulations set out the processes that have to be followed in order to obtain an EA. Listing Notices 1 (GNR.983) and 2 (GNR.984) provide lists of activities that require a Basic Assessment Report (BAR), and S&EIA, respectively. Listing Notice 3 (GNR.985) lists activities that would require authorisation if carried out in specified geographical areas.

The proposed road upgrades will require one Basic Assessment per each phase outlined above to be undertaken as the project activities trigger listed activities published under GNR. 983 and GNR. 985, as shown in the table below. The two BAs will be run concurrently.

Table 2: Possible Listed Activities triggered in the 2014 NEMA EIA Regulations (as amended)

NO.	ACTIVITY	COMMENT
Listing Notice 1 (GNR 982)		
9	The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0.36 metres or more; or (ii) with a peak throughput of 120 litres per second or more;	The road upgrade will require the relocation of existing infrastructure for the bulk transportation of water and storm water. The length, diameter and throughput of the pipelines will still be confirmed.
10	The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes – (i) with an internal diameter of 0.36 metres or more; or (ii) with a peak throughput of 120 litres per second or more;	The road upgrade will require the relocation of existing infrastructure for the bulk transportation of sewage. The length, diameter and throughput of the pipelines will still be confirmed.
11	The development of facilities or infrastructure for the transmission and distribution of electricity— (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more;	The road upgrade will require the relocation of existing infrastructure for the transmission and distribution of electricity. The length and voltage of the powerlines will still be confirmed. The relocation of the powerlines will be permanent and will possibly occur outside the existing transmission line servitude.
12	The development of— (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— (a) within a watercourse; (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —	The development will require the construction of temporary or permanent infrastructure (e.g. bridges, support structures and culverts) with a physical footprint of more than 100 square metres within at least 32 m of watercourses.



NO.	ACTIVITY	COMMENT
14	The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.	The development will require the storage and handling of up to 500 cubic metres of hydrocarbons during the construction phase. Subject to the Contractor's preference. Likely all bituminous products will be obtained commercially due to the close proximity of suppliers, yet considering the size of the project the Contractor may opt to set up a mobile plant.
19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a water course.	No watercourses will be altered, yet excavation and backfilling of foundations of structures will occur in watercourses.
24	The development of a road— (ii) with a reserve wider than 13.5 meters, or where no reserve exists where the road is wider than 8 metres;	The development will include the construction of a four- to six-lane dual carriageway road with a total surfaced width of 21.2-33.4 m and a road reserve of 62-80 m wide. The development will also include the upgrade and new construction of various municipal streets. Additionally, the development will include the alteration of the existing access layout to various properties, including the closure of some access positions and the construction of new access positions.
27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.	Although a linear activity, the clearance of less than 20 ha of indigenous vegetation outside of the road reserve is anticipated for the realignments. Additionally, the clearance of less than 20 ha of indigenous vegetation is required for the construction site camp.
45	The expansion of infrastructure for the bulk transportation of water or storm water where the existing infrastructure— (i) has an internal diameter of 0.36 metres or more; or (ii) has a peak throughput of 120 litres per second or more; and (a) where the facility or infrastructure is expanded by more than 1 000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more;	The road upgrade will require the extension of existing infrastructure for the bulk transportation of water and storm water. The internal diameter, length and throughput of the pipelines will still be confirmed.
47	The expansion of facilities or infrastructure for the transmission and distribution of electricity where the expanded capacity will exceed 275 kilovolts and the development footprint will increase.	The road upgrade will require the extension of existing infrastructure for the transmission and distribution of electricity.
56	The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre— (i) where the existing reserve is wider than 13.5 meters; or	The development will include the widening of the existing road and road reserve. The development will also include the upgrade and new construction of various municipal streets. Additionally, the development will include the alteration of the existing access layout to



NO.	ACTIVITY	COMMENT
	(ii) where no reserve exists, where the existing road is wider than 8 metres;	various properties, including the closure of some access positions and the construction of new access positions.
Listing Notice 3 (GNR 985)		
4	The development of a road wider than 4 metres with a reserve less than 13.5 metres.	<p>The applicability of the sub-activities depends on the layout of the proposed infrastructure. The following sub-activities may apply:</p> <ul style="list-style-type: none"> • Ecological Support Areas (ESAs). • Critically Endangered (Magaliesberg Pretoria Mountain Bushveld) and Vulnerable (Marikana Thornveld) Ecosystems. • Gauteng EMF High Control Zones (Zones 2 and 3). • Gauteng Agricultural Potential Atlas high potential agricultural areas. • Sites zoned for public open space in terms of the SDF.
10	The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.	
12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.	
14	The development of— (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs— (a) within a watercourse; (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;	
18	The widening of a road by more than 4 meters; or the lengthening of a road by more than 1 kilometre.	
23	The expansion of— (ii) infrastructure or structures where the physical footprint is expanded by 10 square metres or more; where such expansion occurs— (a) within a watercourse; (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;	

The development will also require a Water Use Authorisation (WUA) from the Department of Human Settlements, Water and Sanitation (DHSWS) in terms of the National Water Act (NWA, Act No. 36 of 1998). Under Section 21 of the NWA, the proposed development would require either a General Authorisation (GA) or Water Use Licence (WULA) (depending on level of risk), due to the triggering of the following water uses:

- 21(c) impeding or diverting the flow of water in a watercourse (relevant to the construction occurring in close proximity to drainage lines); and
- 21(i) altering the bed, banks, course or characteristics of a watercourse (relevant to the construction occurring in close proximity to drainage lines).

The level of risk associated with the water use activities will be assessed using the DHSWS Risk Assessment Matrix. Low risk activities may qualify for a GA, while moderate to high risk activities would trigger a full WULA, subject to consultation with the DHSWS. Based on our experience and the nature of the proposed development, CES assume that a GA will be required. However, this will need to be confirmed by completing the risk assessment matrix and through consultation with the DHSWS.



APPROACH TO THIS BASIC ASSESSMENT REPORT

The BA for the proposed project is presently in the planning phase (Figure 3). This phase serves primarily to inform the public and relevant authorities about the proposed project and to determine any impacts. These impacts will then be extensively addressed during the environmental impact assessment studies. Only after the Final Basic Assessment Report (fBAR) has been submitted will the relevant authorities make a decision.

A Draft Basic Assessment Report (dBAR) will be compiled which will comprehensively describe the activities and impacts that the project may have on the receiving environment, including specialist reports and details from the PPP process. The dBAR and Environmental Management Programme (EMPr) will be published for a 30 day public comment period.

Subsequent to the review and commenting period, an fBAR will be compiled for submission to DEFF. This will include all public comments and response to issues raised by Interested and Affected Parties (I&APs).

Should the authorities grant approval via an environmental authorisation, all registered I&APs will be notified accordingly and given the opportunity to appeal against the decision, should they so wish.

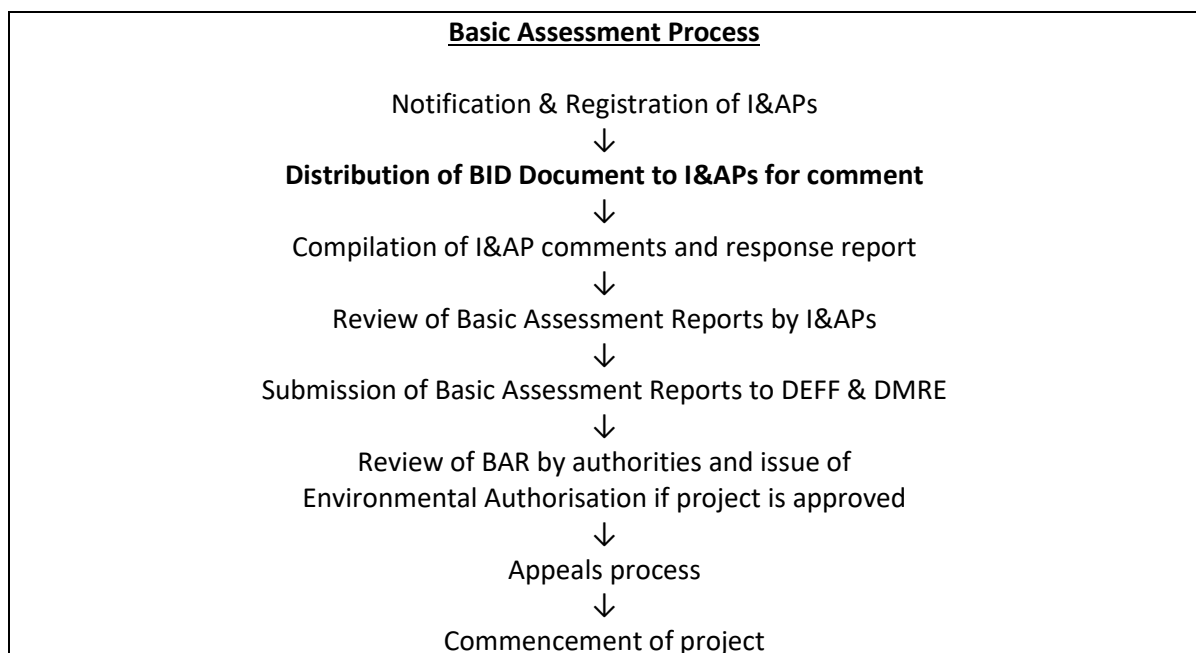


Figure 3: Proposed Basic Assessment Process Including Public Participation



POTENTIAL IMPACTS AND BENEFITS

The following general impacts are anticipated for road construction projects such as this:

- Waste creation and storage.
- Soil erosion.
- Hazardous spillage.
- Alteration of hydrological regime.
- Water contamination.
- Invasive alien species spread.
- Vegetation and faunal impacts.
- Stormwater impacts.
- Loss of soil fertility.
- Dust generation.
- Noise increase.
- Light pollution.
- Sedimentation of rivers.
- Social impacts.
- Heritage impacts.
- Traffic impacts.
- Loss of habitat and ecosystem quality.

The following specialist studies will likely be required to ascertain any potential impacts, positive and negative, that may occur as a result of the potential authorization of the project, and to propose mitigation measures for the construction and operation phases:

- Agricultural Impact Assessment
- Heritage and Paleontological Impact Assessment;
- Ecological Impact Assessment; and
- Wetland and Aquatic Ecology Impact Assessment.

HOW CAN YOU BE INVOLVED?

A Public Participation Process (PPP) is being conducted as part of the BA. The aim of the PPP is to allow everyone who is interested in, or likely to be affected by, the proposed development to provide input into the process. The PPP will include:

- Advertisements in the local newspapers.
- Notice Boards on site.
- Circulation of the BID (this document) to all I&APs and stakeholders.
- Registration of all I&APs and stakeholders.
- Community and focus group meetings.
- Review of all comments by registered I&APs and stakeholders.

If you consider yourself an interested and/or affected person/party, **it is important that you become and remain involved in the public participation process.** In order to do so please follow the steps below in order to ensure that you are continually informed of the project developments and will ensure your opportunity to raise issues and concerns pertaining to the project.

STEP 1: Please **register** by responding to our notification and invitation, with your name and contact details (details provided on cover page and below). As a registered I&AP you will be informed of all meetings, report reviews and project developments throughout the EIA process.



STEP 2: Please send us any comments, concerns or queries you may have in relation to the proposed road upgrade activities.

STEP 3: Attend meetings that will be held throughout the BAR process. As a registered I&AP, you will be invited to these meetings.

CES is required to engage with all private and public parties that may be interested and/or affected by the proposed road upgrade, in order to distribute information for review and comment in a transparent manner. In the same light, it is important for I&APs to note the following:

1. In order for CES to continue engaging with you, please **ENSURE** that you register on our database by contacting the person below.
2. As the BA process is regulated by specific review and comment timeframes, it is your responsibility to submit your comments within these timeframes.

Please note that the collection and storage of personal information by CES is subject to the Protection of Personal Information Act, No. 4 of 2013. By providing CES with your details you acknowledge and permit CES to your details for the purposes intended under the National Environmental Management Act 1998 EIA regulations (as amended 2017). Should you wish to retract your registration please do get in touch with CES.



**I hereby wish to register as an Interested and Affected Party (I&AP) for the
SANRAL SOC Ltd R573-1 Upgrade process**

Name: _____

Email / Postal Address:

Phone #: _____

My initial comments, issues or concerns are:

Other individuals, stakeholders, organisations or entities that should be registered are:

Name: _____

Email / Postal Address:

Phone #: _____

Please return details to Aidan Gouws

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