

C6 BORROW PIT 6 (N9_7/74.8/0.1R)

C6.1 PART 1: BRIEF PROJECT DESCRIPTION

C6.1.1 MINE OWNER AND MINE MANAGER/RESPONSIBLE PERSON

A contractor is still to be appointed by SANRAL to undertake the excavation of the proposed borrow pit. This is a preferred borrow pit for the supply of material for the rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg.

C6.1.2 NAME AND ADDRESS OF THE APPLICANT FOR PROSPECTING PERMIT OR MINING AUTHORISATION

Applicant: South African National Roads Agency Limited

Contact person: Mr Nelis Brink

Address: Private Bag X19, Bellville, 7530

Tel: (021) 957 4600

Fax: (021) 946 1630

C6.1.3 NAME AND ADDRESS OF THE OWNER OF THE LAND AND THE TITLE DEED DESCRIPTION

Farm name: Vetvlakte, Farm 139

Owner: Mrs MMW van der Merwe

Address: PO Box 100, Colesberg, 9795

Tel: 051 753 1447; 082 324 3733

Title deed information: T19082/1987

Size of the property: 2140.1665h

C6.1.4 REGIONAL SETTING

Borrow Pit 6 is an extension of an existing borrow pit that is located to the east of Section 7 of the N9, approximately 21 km south of Colesberg. Co-ordinates of proposed borrow pit extension are presented in Table 5.1 below (see Figure C6.1 and C6.2 and the borrow pit layout plan in Appendix C6.1).

Table C6.1 Co-ordinates of proposed Borrow Pit 6 (N9_7/74.8/0.1R).

Borrow pit co-ordinates (WGS84)		
	Y	X
N	-4460.357	3421389.178
O	-4645.734	3421483.990
P	-4752.475	3421284.636
Q	-4565.874	3421185.781
R	-4522.348	3421269.525

C6.2 PART 2: DESCRIPTION OF THE PRE-MINING ENVIRONMENT SPECIFIC TO BORROW PIT 6 (N9_7/74.8/0.1R)

C6.2.2 CLIMATE

A general description of the climate is presented in Section B3.1.1.

C6.2.1 GEOLOGY

A general description of the geology of the area is presented in Section B3.1.3. Material to be mined at the borrow pit is decomposed dolerite.

C6.2.3 TOPOGRAPHY

The contours of the area are presented in Figure D6.3. The topography of the surrounding area is generally flat. The existing borrow pit has been excavated to a depth of 3 to 5 m in places.

C6.2.4 SOIL

Based on the trial pit profiles there is a layer of topsoil up to a depth of 200 mm. The rest of the soil profile consists of decomposed dolerite.

C6.2.5 PRE-MINING LAND CAPABILITY AND LAND USE

The proposed site is an extension of an existing borrow pit and is an already highly disturbed and degraded state (see Plates C6.1 – C6.4).

C6.2.6 VEGETATION

The vegetation type at the site is classified as Eastern Upper Karoo and has been described by the specialist as being in a very good condition, particularly in the undisturbed areas. The topsoil is deep and might carry a lot of seed due to high seed production of the current vegetation. The dominant species found on the proposed site include *Walafrida saxatilis* (Wit-aar), *Helichrysum zeyheri* (vaalbergkaro), *Eriocephalus spinescens* (doringkapok), *Aristida diffusa* (iron grass), *Eragrostis lehmanniana* (Lehmann's love grass) and *Sporobolus fimbriatus* (dropseed grass). No rare or endangered species were found.

C6.2.7 FAUNA

The site is currently fenced and is therefore not utilised by grazing animals. No signs of animal life was observed on site.

C6.2.8 HYDROLOGY

There are no rivers or farm dams in close proximity to the borrow pit site.

C6.2.9 GEOHYDROLOGY

No ground water was found in the trial pit holes up to a depth of 1.6 m.

C6.2.10 AIR QUALITY

The air quality in the study area is very good. The air quality is sometimes affected by dust from vehicles travelling along the farm track alongside the existing borrow pit.

C6.2.11 NOISE

The site is situated next to a railway crossing and is exposed to noise from the railway line and from the traffic along the N9. There are no residential dwellings in close proximity to the site that could be exposed to noise from borrow activities.

C6.2.12 ARCHAEOLOGY AND PALAEOLOGY

Scatters of thin, LSA dolerite flakes, including a few bladelets and some chunks and two small round cores were found on the site, but these occurred in a very disturbed and degraded context. A few flakes were also noted in the access road leading down into the existing borrow pit. Several weathered and patinated MSA flakes were also noted in the area. The archaeological remains have been rated as having very low local significance.

No palaeontological material would occur as intrusive dolerite dykes do not host such material.

C6.2.13 SENSITIVE LANDSCAPE

No sensitive landscapes were identified.

C6.2.14 VISUAL ASPECTS

The existing borrow pit site is highly visible from the N9. The proposed extension would, however be undertaken at the eastern edge of the existing borrow pit which is approximately 150 m from the road edge. The distance should reduce the visual impact of the proposed borrow activities for road users travelling along the N9. Borrow activities would not be visible from the nearest residential dwellings.

C6.2.15 REGIONAL SOCIO-ECONOMIC STRUCTURE

See information provided in Section C3.3.

C6.2.16 INTERESTED AND AFFECTED PARTIES

The public participation process undertaken is presented in detail in Section A3.2.2. It should be noted that a notification letter was sent to Mr van der Merwe (the owner) informing him of the proposed project and that a borrow pit had been identified on his property. Mr van der Merwe was asked to complete an acknowledgement form (which is included in Appendix C6.2)) to indicate that he was made aware of the location and extent of the area and that access to the area may be required across his property, as well as to raise any issues of concern. No issues were raised by Mr van der Merwe.

C6.3 PART 3: BRIEF PROJECT DESCRIPTION

C6.3.1 BENEFITS OF THE PROJECT

The motivation for and potential benefits arising as a result of the project are presented in Section B1.

C6.3.2 CONSIDERATION OF ALTERNATIVES

The assessment of alternatives is presented in detail in Section B2.

C6.4 PART 4: DETAILED DESCRIPTION OF THE PROPOSED PROJECT

C6.4.1 SURFACE INFRASTRUCTURE

There would be no permanent surface infrastructure associated with the proposed borrow pit. The only temporary structure would be fencing. Access would be from the south along the existing dirt road that joins the N9.

C6.4.2 WASTE MANAGEMENT

Material that is not suitable as material for the road rehabilitation project would be stockpiled and used as backfill. Any domestic waste would be collected in a waste bin and disposed of at a municipal waste site.

C6.4.3 WATER MANAGEMENT

The water requirements for the proposed borrow pit operations are expected to be minimal (e.g. dust suppression on access roads and borrow pit area). The water sources would be identified by the contractor.

The existing borrow pit has a low point to the west of the proposed area of extension. The borrow pit would be sloped to prevent water from accumulating in low points on the site.

C6.4.4 TRANSPORT

This would consist of trucks transporting the fill material from the borrow pit to the area of the road under construction.

C6.4.5 BORROW PIT LAYOUT AND DEVELOPMENT

Google Earth images of the proposed borrow pit site are included in Figure C6.1 and C6.2 and the proposed site layout plan is included in Appendix C6.1.

The borrow pit would be approximately 4.8 ha in extent. Vegetation would be cleared from the site. Any seed-bearing material would be kept separate for use during rehabilitation or preferably mulched into the topsoil. Topsoil would, where possible, be stripped to a depth of 200 mm and stockpiled separately from other soil layers in piles not exceeding 2 m in height (as indicated in the borrow pit layout plan). Material that cannot be used for the road rehabilitation project would be used in the reshaping of the site during rehabilitation and would be stockpiled separately.

To minimise any impacts on the value of the surrounding land, care shall be taken to limit the extent of the area disturbed during construction activities. In this regard, the borrow pit site and associated activities and infrastructure shall be carefully planned, to ensure that the footprint is kept to a minimum. The proposed borrow pit would consist of one compartment (see the borrow pit layout plan).

The borrow pit would be excavated by means of ripping and loading with an excavator directly onto haul vehicles. Material would then be transported to the area of the road under construction.

The borrow pit would be mined to a maximum depth of 5 m. The end slopes would have slopes of approximately 1:5 (vertical:horizontal).

The borrow pit details are summarised in Table C6.2.

Table C6.2 Summary of Borrow Pit 6 (N9_7/74.8/0.1R)

Borrow pit area	4.8 ha
Maximum depth	5 m
Material quality	Selected Subgrade and Fill
Volume of material	170 000 m ³

C6.5 PART 5: ENVIRONMENTAL IMPACT ASSESSMENT

This section describes the impact that would result from the proposed borrow pit. Mitigation measures are proposed that would mitigate negative impacts or enhance potential benefits. Impacts were assessed according to pre-defined rating scales (see Appendix 2), which are based on criteria set out in the EIA Regulations Guideline Document (Department of Environmental Affairs and Tourism, 1998). The impacts arising from the borrow pit development are presented in Table C6.3.

C6.6 PART 6: SITE REHABILITATION

During rehabilitation, the topography would be finished off so that the sides of the borrow area are no steeper than 1:5. The slope changes should be finished off so that flowing curves that blend with the surrounding landscape are formed in preference to sharp angles. Unused boulders would be placed back in the deepest areas of the excavated area and the topsoil and vegetation stripped during site clearance would be spread evenly across the borrow pit area.

Introduction of seed of species such as *Sporobolus fimbriatus* (dropseed grass) and *Digitaria eriantha* (finger grass) should also be considered. *Digitaria eriantha* should be sown in the lower areas of the reshaped landscape. Water accumulation in lower laying areas could provide for the water requirements of this species.

C6.7 PART 7: ENVIRONMENTAL MANAGEMENT PROGRAMME

A generic EMP is presented in Section D, as it is the same for all eight borrow pits.

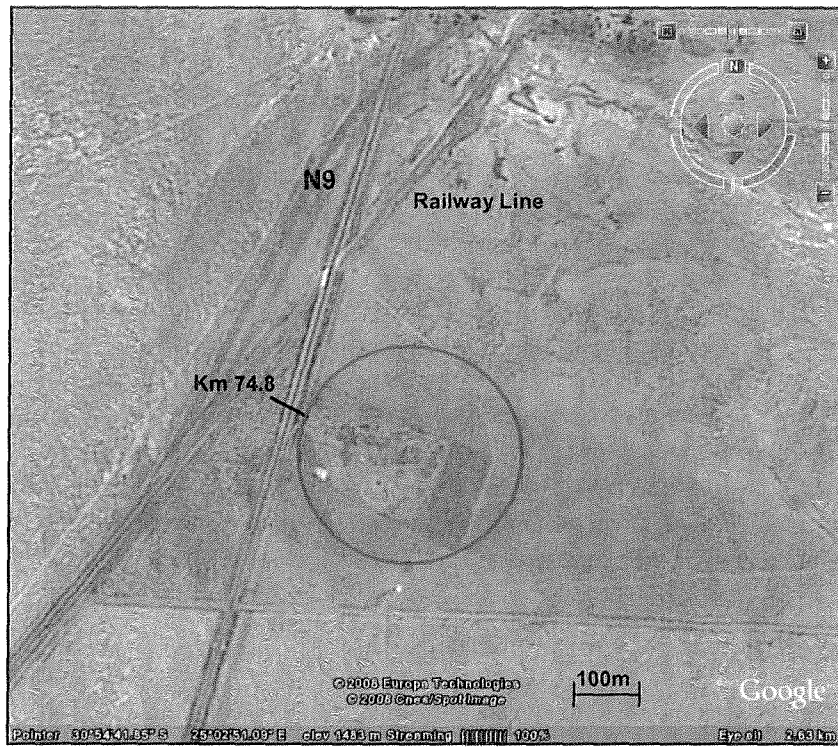


Figure C6.1 Google Earth image showing the location of BP 6 (N9_7/74.8/0.1R) next to the N9 at km 74.8.



Figure C6.2 Google Earth image showing the proposed mining area at BP 6 (N9_7/74.8/0.1R)



Plate C6.1 Photograph of Borrow Pit 6, taken from the N9 to the east.



Plate C6.2 Photograph taken from the western edge of the existing borrow area towards the N9 in the west.

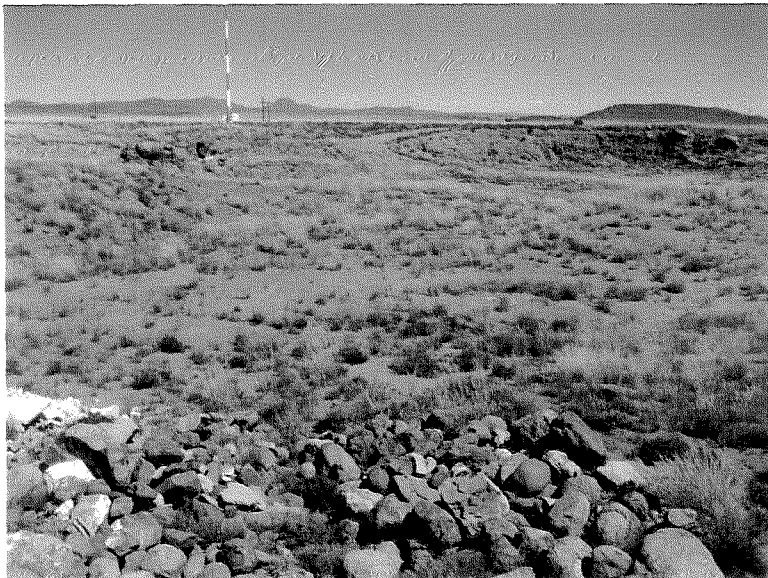


Plate C2.3 Photograph of Borrow Pit 6, taken from the northern edge of the borrow pit to the southeastern corner of the borrow area.

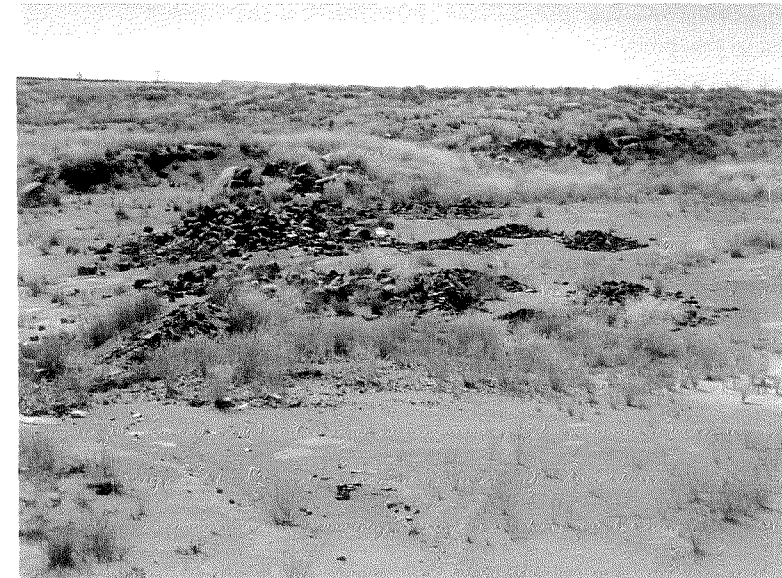


Plate C6.4 Material from routine road maintenance activities that have been dumped in the existing borrow area.

Table C6.3: Impacts arising from the proposed development of Borrow Pit 6 (N9_7/74.8/0.1R).

Environmental Aspect	Extent	Duration	Intensity	Probability	Confidence	Significance (before mitigation)	Proposed mitigation	Significance (after mitigation)
Geology	Local	Permanent	Low	Definite	Medium	Low	-	Low
Topography	Local	Permanent	Low	Definite	Medium	Low	The topography would be finished off so that the sides of the borrow area are no steeper than 1:5. The slope changes must be finished off so that flowing curves that blend with the surrounding landscapes are formed in preference to sharp angles.	Very Low
Soil	Local	Short-term	Medium	Highly probable	High	Very Low	Stockpile topsoil and utilise during rehabilitation.	Very Low
Land use	Local	Short-term	Low	Probable	High	Very Low	Land disturbed shall be rehabilitated.	Very Low
Land capability	Local	Short-term	Low	Probable	High	Very Low	<ul style="list-style-type: none"> • Demarcation and fencing of borrow area site; • Identification of no-go areas; and • Land disturbed shall be rehabilitated. 	Very Low
Vegetation	Local	Short-term	Low	Highly probable	Medium	Low	Topsoil should be removed and stored in wind rows not higher than two meters. After mining the unused boulders can be placed back in the deepest areas of the borrow pit. During rehabilitation, topsoil should be spread evenly across the cleared borrow pit area. Introduction of seed of species such as <i>Sporobolus fimbriatus</i> (dropseed grass) and <i>Digitaria eriantha</i> (finger grass) should also be considered.	Very Low
Fauna	Local	Short-term	Low	Probable	High	Very Low	Land disturbed shall be rehabilitated.	Very Low
Surface water	Local	Short-term	Low	Improbable	High	Very Low	All machinery and equipment shall be properly maintained, so that leaks do not appear and so that during servicing all oil, grease etc. is disposed of correctly.	Very Low
Groundwater	Local	Short-term	Low	Improbable	High	Very Low	All machinery and equipment shall be properly maintained, so that leaks do not appear and so that during servicing all oil, grease etc. is disposed of correctly.	Very Low
Air quality	Local	Short-term	Low	Highly probable	High	Very Low	Retain vegetation cover as long as possible to reduce the size of areas where wind could generate dust and spray water and/or other dust suppression agents to reduce dust.	Very Low
Noise	Local	Short-term	Low	Highly probable	High	Very Low	The contractor shall be required to be familiar with and adhere to any local by-laws and regulations regarding the generation of noise and hours of operation.	Very Low
Archaeology	Local	Short-term	Low	Probable	High	Very Low	-	Very Low

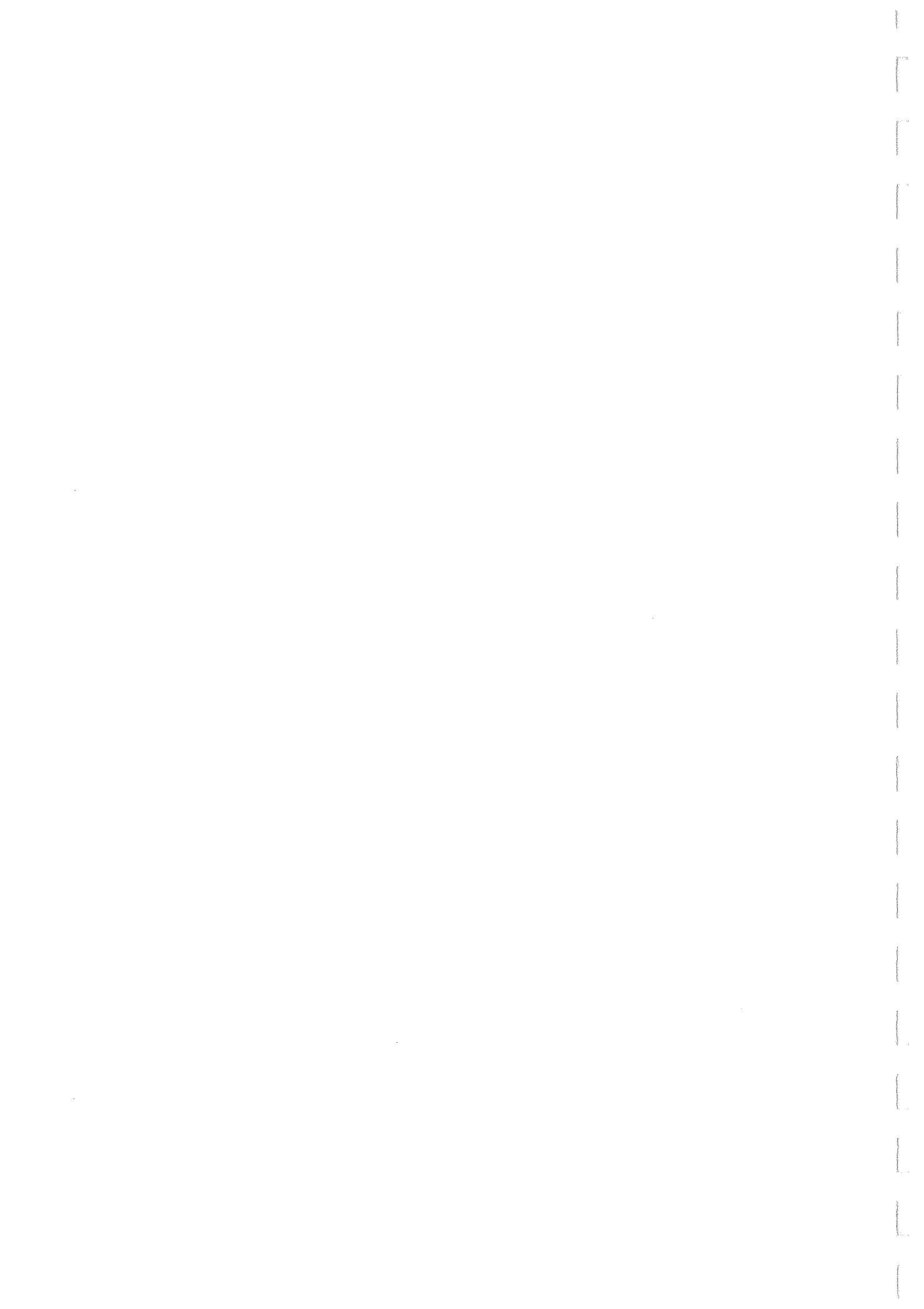
EMP: Proposed borrow pits for the proposed rehabilitation of the N9 between Wolwefontein and Colesberg

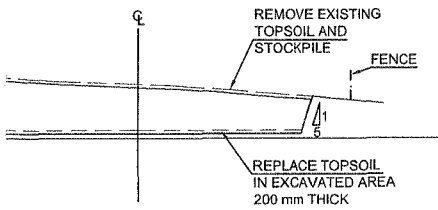
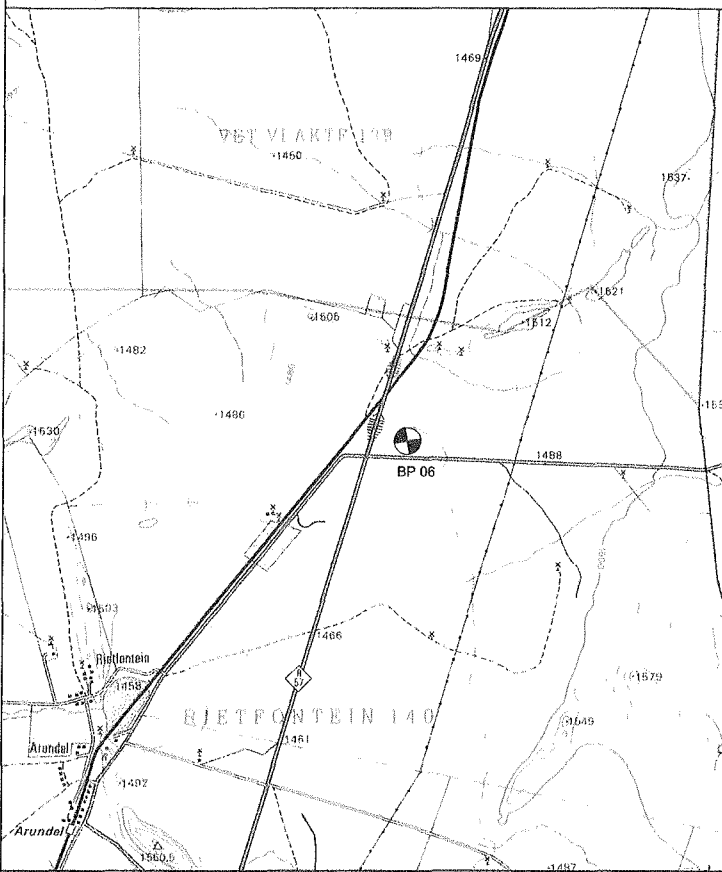
Environmental Aspect	Extent	Duration	Intensity	Probability	Confidence	Significance (before mitigation)	Proposed mitigation	Significance (after mitigation)
Palaeontology	No impact – Intrusive dolerite dykes do not host palaeontological material.							
Sensitive landscapes	No impact.							
Visual aspects	Local	Long-term	Low	Probable	High	Low	Land disturbed shall be rehabilitated.	Low
Regional socio-economic: employment	Local	Short-term	Low	Highly probable	High	Very Low (Positive)	Local labour shall be sourced.	Very Low (Positive)
Regional socio-economic: safety	Local	Short-term	Low	Probable	High	Low	<ul style="list-style-type: none"> The movement of construction vehicles shall be limited to daylight hours; and The dangers associated with the movement of large haulage vehicles shall be clearly sign-posted in both directions leading up to the proposed borrow pit. 	Very Low



APPENDIX C6.1

**PROPOSED BORROW PIT
LAYOUT PLAN**





SECTION A - A

TOTAL ESTIMATED CAPACITY = 170000 m³
N.T.S

LOCALITY PLAN

LEGEND

- POSITION OF BORROWPIT
- ERF BOUNDARY

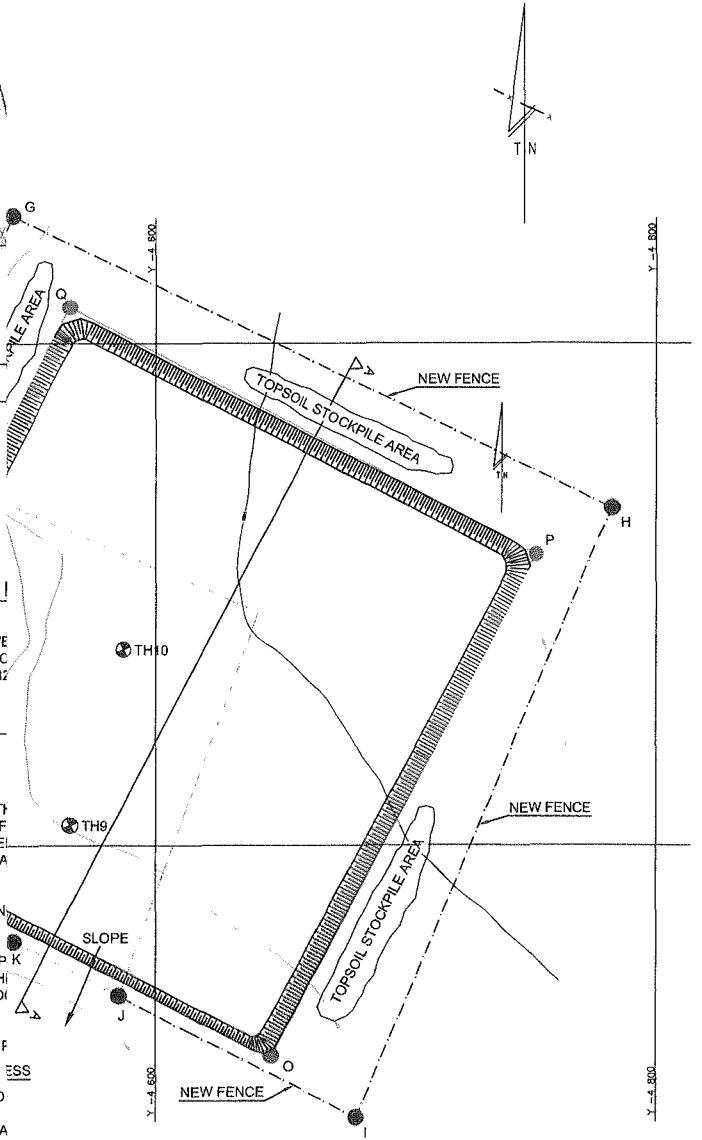
MATERIAL DESCRIPTION :
PROPOSED USAGE
TOTAL CAPACITY

VET VLAKTE : ERF 1

BORROW PIT No. 06:
OWNER : VAN DER MERWE
ADDRESS : P. O. BOX 100, CC
TEL : 051 753 1447 / 082

NOTES:

1. ANY INVADER SPECIES WILL BE REMOVED FROM THE SITE BEFORE ANY TOPSOIL IS CLEARED. THE DEPTH OF 20cm IF AVAILABLE AND STORED AWAY FROM DRAINAGE LINES ALONG THE EDGES OF EXCEED 1m IN HEIGHT AND WILL NOT BE COMPACTED FOR MORE THAN SIX MONTHS BEFORE BEING SPREAD ON THE SURFACE AS SOON AS THE BORROW PIT EXCAVATION HAS BEEN COMPLETED AS REQUIRED.
2. THE BORROW PIT SITE AND EXISTING ACCESS ROAD WILL BE PROPERLY DEMARCATED AND FENCED AFTER OPERATION.
3. DUST EMISSIONS WILL BE EFFECTIVELY CONTROLLED BY APPROPRIATE MEASURES SUCH AS SPRAY MEASURES. EXCAVATED MATERIAL STOCKPILES WILL BE ADEQUATELY PROTECTED AGAINST THE MEASURES SUCH AS SHADECLOTH SCREENS OR HESSIAN COVERING. IN THE SHORT TERM, STOP DUST GENERATION.
4. VEHICLE SPEEDS WILL BE RESTRICTED TO PREVENT ACCIDENTS, TO REDUCE DUST AND NOISE AND TO PREVENT INJURY TO LIVESTOCK.
5. ACCESS TO ALL GATES WILL BE CONTROLLED AS AGREED WITH THE LANDOWNER / LESSEE AND
6. A TEMPORARY EATING AREA WILL BE PROVIDED WITHIN THE BORROW PIT AREA TO ENSURE THAT EAT. ABLUTION FACILITIES WILL BE PROVIDED AND WILL BE LOCATED TO PREVENT THE POLLUTION PROVIDED.
7. TEMPORARY WASTE DISPOSAL AREAS WILL BE DEMARCATED AND FENCED (IF NECESSARY) AND WEATHERPROOF CONTAINERS (WITH LIDS) WITHIN THIS AREA FOR DISPOSAL AT A LICENSED WASTE REMOVED FROM SITE BY THE CONTRACTOR. NO BURNING, ON-SITE DUMPING OR BURYING OF WASTE.
8. MAXIMUM DEPTH OF MINING : 5m. (MEASURED FROM NATURAL GROUND LEVELS TO BASE OF EXCAVATION)
9. MINING OF BORROW PIT MAY REQUIRE RIPPING.
10. ALL WORKED AREAS WILL BE RIPPED AND SCARIFIED AND TOPSOIL WILL BE REPLACED. ANY ROCK SCATTERED OVER THE SITE TO PROVIDE GOOD GERMINATION MICRO-SITES FOR PLANTS. THE SIDES OF THE BORROW AREA ARE NO STEEPER THAN 1:5. THE SLOPE CHANGES WILL BE FINISHED WITH THE SURROUNDING LANDSCAPES ARE FORMED IN PREFERENCE TO SHARP ANGLES.



UWP -
P.C.
Reserve House Reg

PROJECT DESCRIPTION
THE REHABILITATION OF NATIONAL ROUTE 9
SECTION 7 FROM WOLFFONTEIN (KM 63 900.00) TO
COLESBERG (KM 94 599.73) INCLUDING A NEW
N1/N9 INTERCHANGE AT COLESBERG

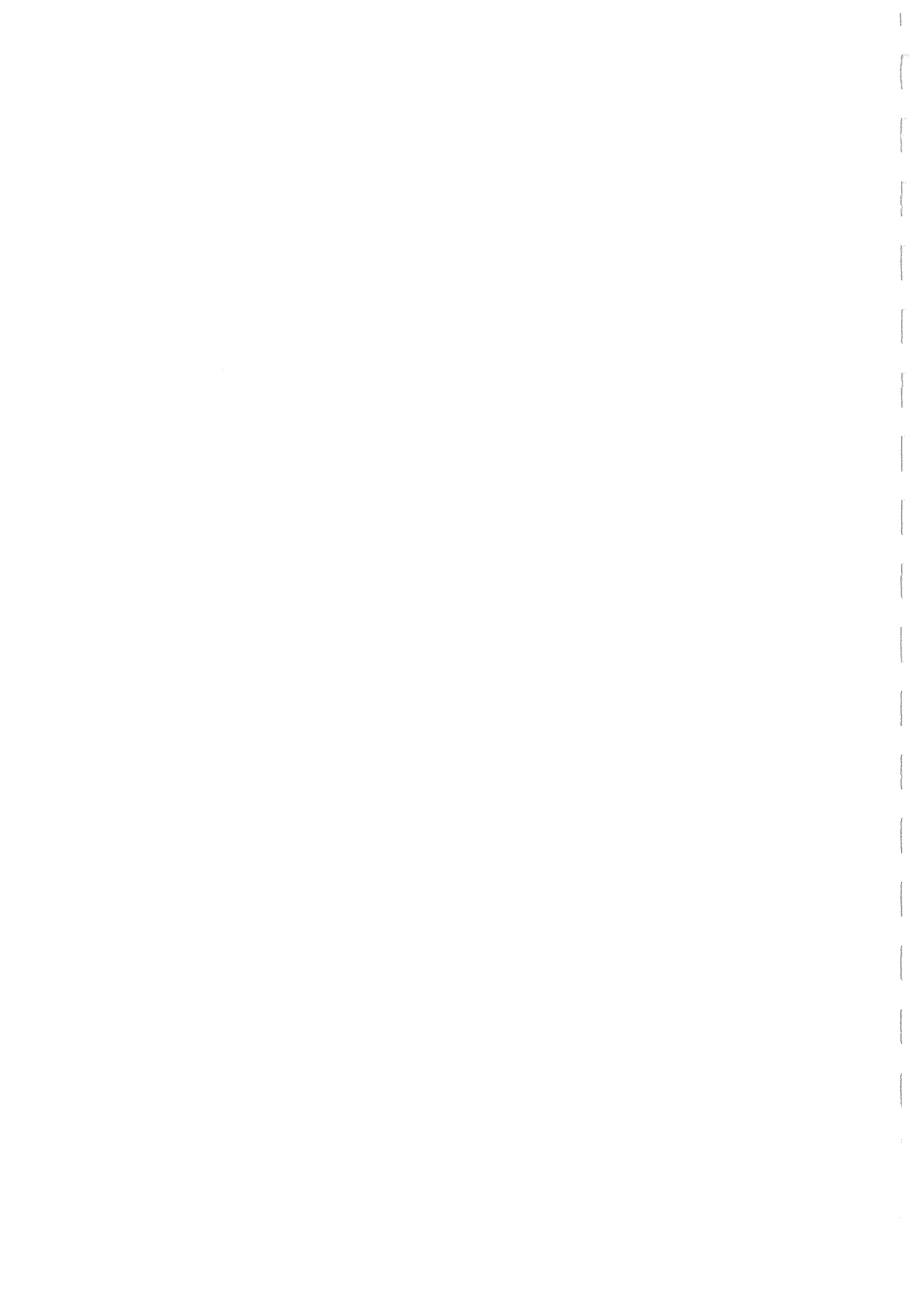
DRAWING DESCRIPTION
BORROW PIT 6 - (N9 7174.810.1R)
MINING AND REHABILITATION PLAN

PROJECT NUMBER	NRA N 009-070-2007/1	
PLAN LOCATION DATA	START	END
ROUTE	N009	N009
SECTION	7	7
km DISTANCE	63 900.00	94 599.73
PLAN TYPE	ROADS	
BRIDGE/STRUCTURE No.		
CONSULTANT DRAWING No.	FA	14784 - 306
SANRAL DRAWING NR.		

SCALE AS SHOWN (A0) SHEET 6 of 8

VER
V1

No.	DATE	REVISION	CONSULT. ENG.	for CEO
V1	08/10/2010	ISSUED FOR TENDER	A.S.	



APPENDIX C6.2

**LANDOWNER ACKNOWLEDGEMENT
OF NOTIFICATION FORM**



**VOORGESTELDE LEENGROEWE VIR DIE REHABILITASIE VAN DIE N9/7
TUSSEN WOLWEFONTEIN EN COLESBERG
BENUTTING VAN LEENGROEWE**

**PROPOSED BORROW PITS FOR THE REHABILITATION OF THE N9/7
BETWEEN WOLWEFONTEIN AND COLESBERG
UTILISATION OF BORROW PITS**

LEENGROEF NO./ BORROW PIT NO.	BORROW PIT 6) N9_7/74.8/0.1R
GEREGISTREERDE PLAAS NAAM/ REGISTERED FARM NAME	<i>Rietfontein</i>
GEREGISTREERDE EIENAAR/ REGISTERED OWNER	<i>MAMM van Mamm</i>

Ek erken dat ek verwittig is deur die Nasionale Padagentskap (SANRAL) van die voorneme om bestaande leengroewe op my eiendom te benut, soos aangedui op die aangehegde plan, vir die rehabilitasie van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg; dat ek bewus is van die ligging en omvang van die gebied en dat toegang oor my eiendom benodig mag word.

I acknowledge that I have been informed of SANRAL's intention to utilise the existing borrow pits on my property indicated on the attached plan for the rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg; and that I am aware of the location and extent of the area and that access to the area may be required across my property.

HANDTEKENING VAN EIENAAR OF GEDELIGEERDE

VERTEENWOORDIGER/ SIGNATURE OF OWNER OR DELEGATED REPRESENTATIVE

Nicholas van Mamm

STATUS INDIEN NIE GEREGISTREEDE EIENAAR NIE/ STATUS IF NOT

REGISTERED OWNER *Farm Manager*

DATUM/ DATE *13 Augustus*

NAAM/ NAME *Nicholas van Mamm*

PART C7

BORROW PIT 7 (N9 7/69.6/0.8 R)

C7 BORROW PIT 7 (N9_7/69.9/0.8R)

C7.1 PART 1: BRIEF PROJECT DESCRIPTION

C7.1.1 MINE OWNER AND MINE MANAGER/RESPONSIBLE PERSON

A contractor is still to be appointed by SANRAL to undertake the excavation of the proposed borrow pit. This is a preferred borrow pit for the supply of material for the rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg.

C7.1.2 NAME AND ADDRESS OF THE APPLICANT FOR PROSPECTING PERMIT OR MINING AUTHORISATION

Applicant: South African National Roads Agency Limited

Contact person: Mr Nelis Brink

Address: Private Bag X19, Bellville, 7530

Tel: (021) 957 4600

C7.1.3 NAME AND ADDRESS OF THE OWNER OF THE LAND AND THE TITLE DEED DESCRIPTION

Farm name: Arundel (Rietfontein, Farm 140)

Owner: Mr HAJ Wium

Address: PO Box 21, Colesberg, 9795

Tel: 051 753 1448; 073 620 2448

Title deed information: Deed of Transfer: T21638/1985

Size of the property: 2059.6334h

No mineral rights are indicated on the Deed of Transfer.

C7.1.4 REGIONAL SETTING

Borrow Pit 7 is an extension of an existing borrow pit to the east of Section 7 of the N9, approximately 26 km south of Colesberg. Co-ordinates of the proposed borrow pit extension are presented in Table C7.1 below (refer to Figures C7.1 and C7.2 and the borrow pit layout plan in Appendix C7.1).

Table C7.1 Co-ordinates of proposed Borrow Pit 7 (N9_7/69.6/0.8R).

Borrow pit co-ordinates (WGS84)		
	Y	X
E	-3183.241	3426375.167
F	-3317.829	3426296.194
G	-3284.887	3426241.565
H	-3240.390	3426167.676
I	-3216.840	3426127.031
J	-3085.310	3426207.530
K	-3151.195	3426319.194
L	-3161.181	3426336.532

C7.2 PART 2: DESCRIPTION OF THE PRE-MINING ENVIRONMENT SPECIFIC TO BORROW PIT 7 (N9_7/69.9/0.8R)

C7.2.1 CLIMATE

A general description of the climate is presented in Section B3.1.1.

C7.2.2 GEOLOGY

A general description of the geology is presented in Section B3.1.3. Material to be mined at the borrow pit is mudstone.

C7.2.3 TOPOGRAPHY

The contours of the area are presented in the borrow pit layout plan included in Appendix C7.1. The proposed borrow pit site is generally flat with a low point in the southwestern corner of the existing borrow pit.

C7.2.4 SOIL

Based on the trial pit profiles there is a layer of topsoil of up to 200 mm. The rest of the soil profile consists of mudstone.

C7.2.5 PRE-MINING LAND CAPABILITY AND LAND USE

The proposed site is an extension of an existing borrow pit and is located in a fenced camp on veld utilised as natural grazing (see Plates C3.1 – C3.4). Water currently accumulates in the southwestern corner of the existing borrow pit and the site is thus utilised as a drinking hole for animals.

C7.2.6 VEGETATION

The vegetation type present at the site is Eastern Upper Karoo. Aside from the existing borrow pit the area proposed for extension is undisturbed and has a high species diversity of indigenous grasses including *Walafrida saxatilis* (wit-aar), *Eriocephalus ericoides* (kapokbos), *Phymaspermum parvifolium* (witblommetjie) and *Cynodon incompletus* (kweek). No rare or endangered plant species were found.

C7.2.7 FAUNA

The site is currently unfenced and is utilised for grazing of animals.

C7.2.8 HYDROLOGY

Water accumulates in the existing borrow pit excavation during the rain season and it serves as an informal farm dam where animals come to drink. There are no rivers or formal farm dams in close proximity to the borrow pit site.

C7.2.9 GEOHYDROLOGY

No ground water was found in the trial pit holes up to a depth of 2.2 m.

into the topsoil. Topsoil would, where possible, be stripped to a depth of 200 mm and stockpiled separately from other soil layers in piles not exceeding 2 m in height (as indicated in the borrow pit layout plan). Material that cannot be used for the road rehabilitation project would be used in the reshaping of the site during rehabilitation and would be stockpiled separately.

To minimise any impacts on the value of the surrounding land, care shall be taken to limit the extent of the area disturbed during construction activities. In this regard, the borrow pit site and associated activities and infrastructure shall be carefully planned, to ensure that the footprint is kept to a minimum. The proposed borrow pit would consist of one compartment (see borrow pit layout plan).

The borrow pit would be excavated by means of ripping and loading with an excavator directly onto haul vehicles. Material would then be transported to the area of the road under construction.

The borrow pit would be mined to a maximum depth of 9 m. The end slopes would have slopes of approximately 1:5.

The borrow pit details are summarised in Table C7.2 below.

Table C7.2 Summary of Borrow Pit 7 (N9_7/69.6/0.8R)

Borrow pit area	2.9 ha
Maximum depth	9 m
Material quality	Selected Subgrade and Fill
Volume of material	75 000 m ³

C7.5 PART 5: ENVIRONMENTAL IMPACT ASSESSMENT

This section describes the impact that would result from the proposed borrow pit. Mitigation measures are proposed that would mitigate negative impacts or enhance potential benefits. Impacts were assessed according to pre-defined rating scales (see Appendix 2), which are based on criteria set out in the EIA Regulations Guideline Document (Department of Environmental Affairs and Tourism, 1998).

The impacts arising from the borrow pit development are presented in Table C7.3.

C7.6 PART 6: SITE REHABILITATION

Due to frequent grazing, it is expected that the seed bank at the borrow pit site might be limited. This could, however, be enhanced by fencing off the site and preventing grazing for as long a period as possible before the start of borrow activities.

During rehabilitation, the topography would be finished off so that the sides of the borrow area are no steeper than 1:5. The slope changes should be finished off so that flowing curves that blend with the surrounding landscape are formed in preference to sharp angles. Unused boulders would be placed back in the deepest areas of the excavated area and the topsoil and vegetation stripped during site clearance would be spread evenly across the borrow pit area.

Introduction of seed of species such as *Sporobolus fimbriatus* (dropseed grass) and *Pentzia incana* (ankerkaroo) should also be considered. *Sporobolus fimbriatus* should be sown in the lower areas of the reshaped landscape. Water accumulation in lower laying areas could provide for the water requirements of this species.

C7.7 PART 7: ENVIRONMENTAL MANAGEMENT PROGRAMME

A generic EMP is presented in Section D, as it is the same for all eight borrow pits.

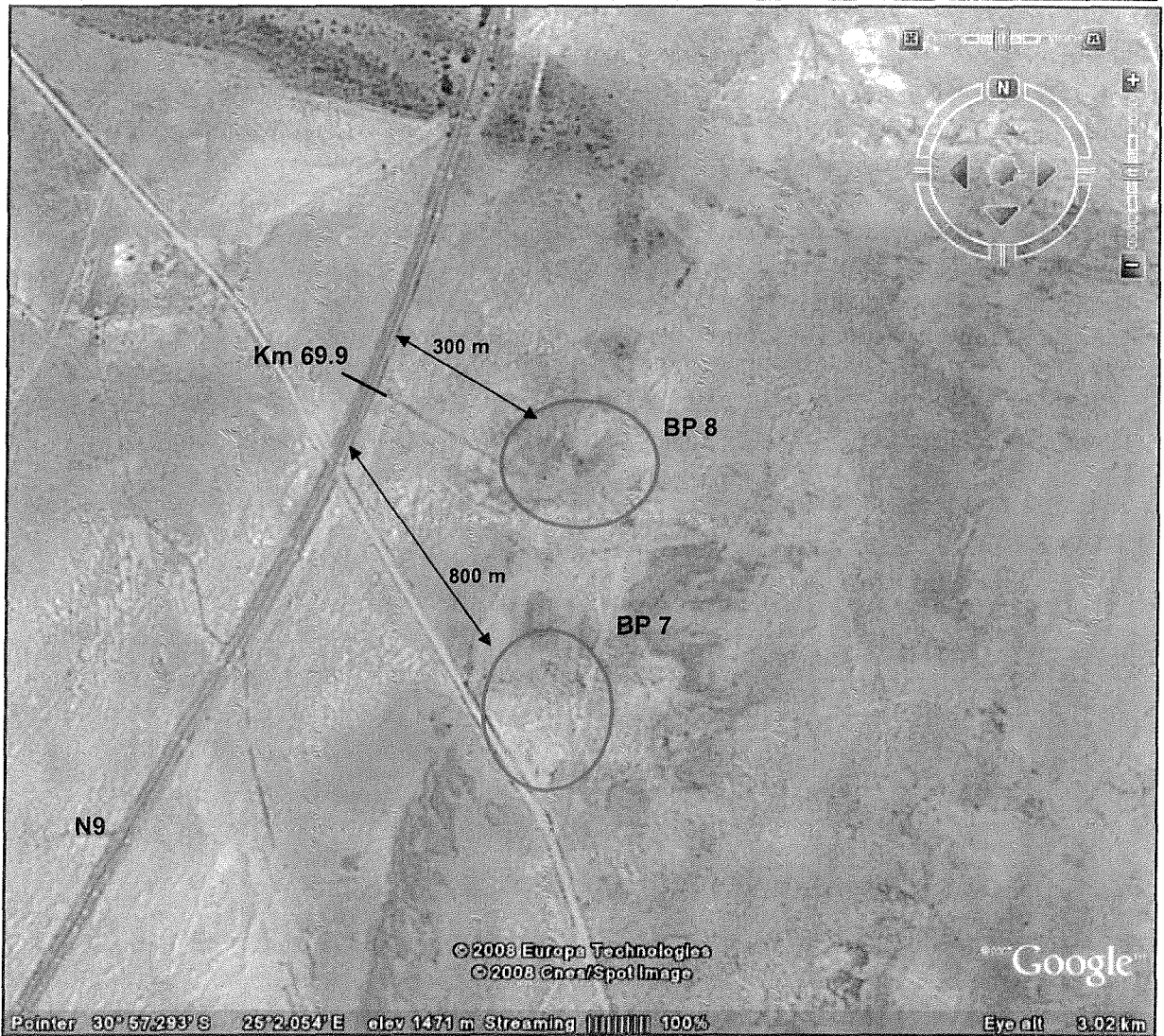


Figure C7.1 Google Earth Image showing the locations of BP 7 and BP 8 on the Farm Arundel.

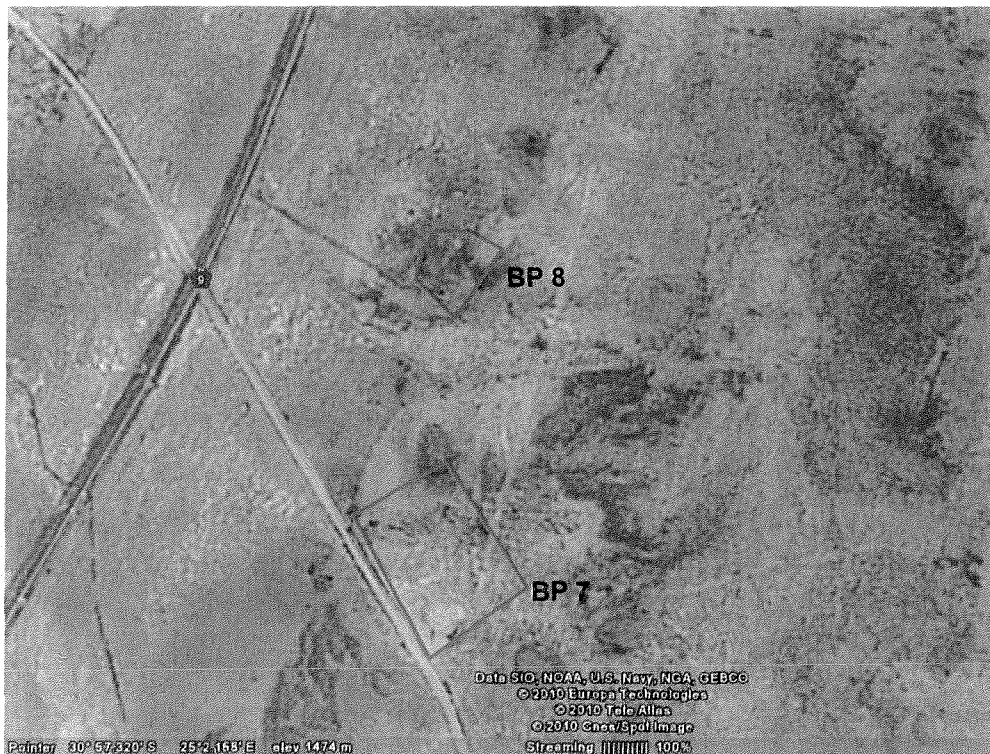


Figure C7.2 Google Earth Image showing the proposed mining areas of BP 7 (N9_7/69.6/0.8R) and BP 8 (N9_7/69.6/0.3R)



Plate C7.1 Photograph taken across the existing borrow pit and informal dam from the southwestern corner, looking north-northwest.



Plate C7.2 Photograph taken along the southeastern edge of the existing borrow pit, looking north-northeast.

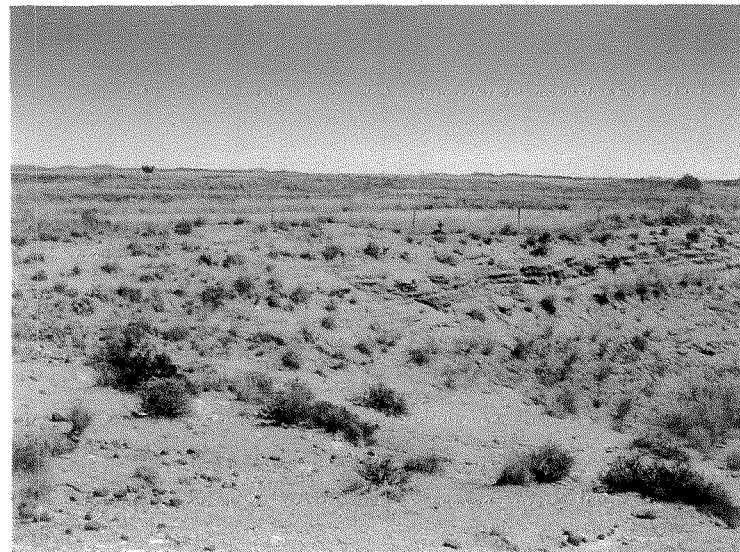


Plate C7.3 Photograph taken towards the Arundel road west of the existing borrow pit.

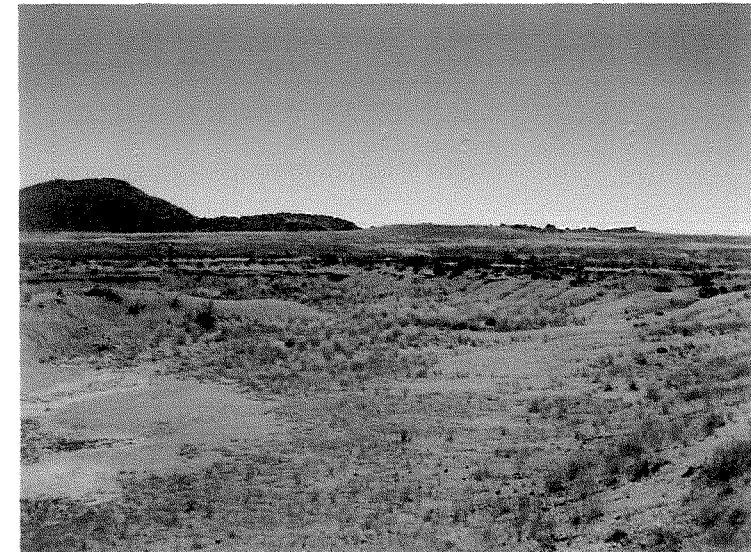


Plate C7.4 Photograph taken from the dirt access road, looking north towards the N9.

Table C7.3: Impacts arising from the proposed development of Borrow Pit 7 (N9_7/69.6/0.8R).

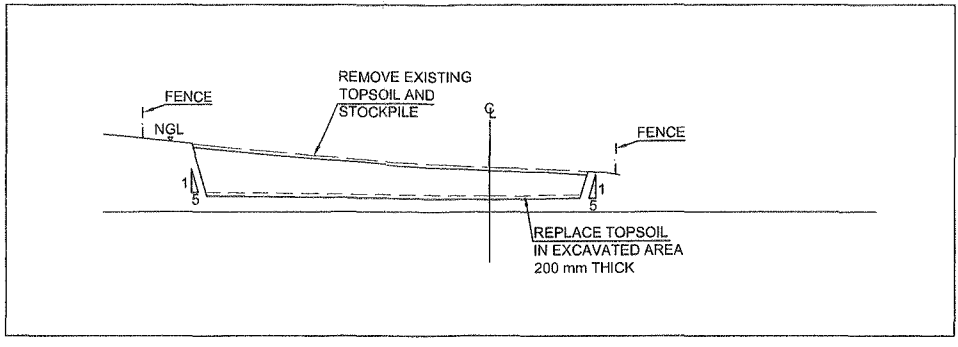
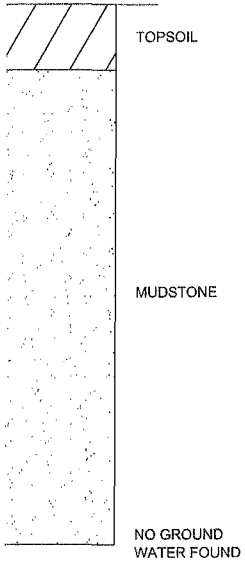
Environmental Aspect	Extent	Duration	Intensity	Probability	Confidence	Significance (before mitigation)	Proposed mitigation	Significance (after mitigation)
Geology	Local	Permanent	Low	Definite	Medium	Low	-	Low
Topography	Local	Permanent	Low	Definite	Medium	Low	The topography would be finished off so that the sides of the borrow area are no steeper than 1:5. The slope changes must be finished off so that flowing curves that blend with the surrounding landscapes are formed in preference to sharp angles.	Very Low
Soil	Local	Short-term	Medium	Highly probable	High	Very Low	Stockpile topsoil and utilise during rehabilitation.	Very Low
Land use	Local	Short-term	Low	Probable	High	Very Low	Land disturbed shall be rehabilitated.	Very Low
Land capability	Local	Short-term	Low	Probable	High	Very Low	<ul style="list-style-type: none"> • Demarcation and fencing of borrow area site; • Identification of no-go areas; and • Land disturbed shall be rehabilitated. 	Very Low
Vegetation	Local	Short-term	Low	Highly probable	Medium	Low	This area should be rested (withdrawn from grazing by fencing it) for as long a period as possible before starting with mining activities to allow for seed production. Topsoil together with existing plant material should be removed and stored in wind rows, no higher than two meters. During rehabilitation topsoil should be spread evenly across the cleared borrow pit area. Introduction of seed of species such as <i>Sporobolus fimbriatus</i> (dropseed grass) and <i>Pentzia incana</i> (ankerkaroo) should also be considered.	Very Low
Fauna	Local	Short-term	Low	Probable	High	Very Low	Land disturbed shall be rehabilitated.	Very Low
Surface water	Local	Short-term	Low	Improbable	High	Very Low	All machinery and equipment shall be properly maintained, so that leaks do not appear and so that during servicing all oil, grease etc. is disposed of correctly.	Very Low
Groundwater	Local	Short-term	Low	Improbable	High	Very Low	All machinery and equipment shall be properly maintained, so that leaks do not appear and so that during servicing all oil, grease etc. is disposed of correctly.	Very Low
Air quality	Local	Short-term	Low	Highly probable	High	Very Low	Retain vegetation cover as long as possible to reduce the size of areas where wind could generate dust and spray water and/or other dust suppression agents to reduce dust.	Very Low
Noise	Local	Short-term	Low	Highly probable	High	Very Low	The contractor shall be required to be familiar with and adhere to any local by-laws and regulations regarding the generation of noise and hours of operation.	Very Low

EMP: Proposed borrow pits for the proposed rehabilitation of the N9 between Wolwefontein and Colesberg

Environmental Aspect	Extent	Duration	Intensity	Probability	Confidence	Significance (before mitigation)	Proposed mitigation	Significance (after mitigation)
Archaeology	Local	Short-term	Low	Probable	High	Very Low	-	Very Low
Palaeontology	No impact – Where practicable, any finds of fossil tetrapods, vascular plants and trace fossils should be recorded and carefully removed. In the event that any palaeontological material is found, SAHRA should be notified (Mariagrazia Galimberti, 021 462 4502).							
Sensitive landscapes	No impact.							
Visual aspects	Local	Long-term	Low	Probable	High	Low	Land disturbed shall be rehabilitated.	Very Low
Regional socio-economic: employment	Local	Short-term	Low	Highly probable	High	Very Low (Positive)	Local labour shall be sourced.	Very Low (Positive)
Regional socio-economic: safety	Local	Short-term	Low	Probable	High	Low	<ul style="list-style-type: none"> The movement of construction vehicles shall be limited to daylight hours; and The dangers associated with the movement of large haulage vehicles shall be clearly sign-posted in both directions leading up to the proposed borrow pit. 	Very Low

**PROPOSED BORROW PIT
LAYOUT PLAN**

APPENDIX C7.1



SECTION A - A
TOTAL ESTIMATED CAPACITY = 75000 m³
N.T.S

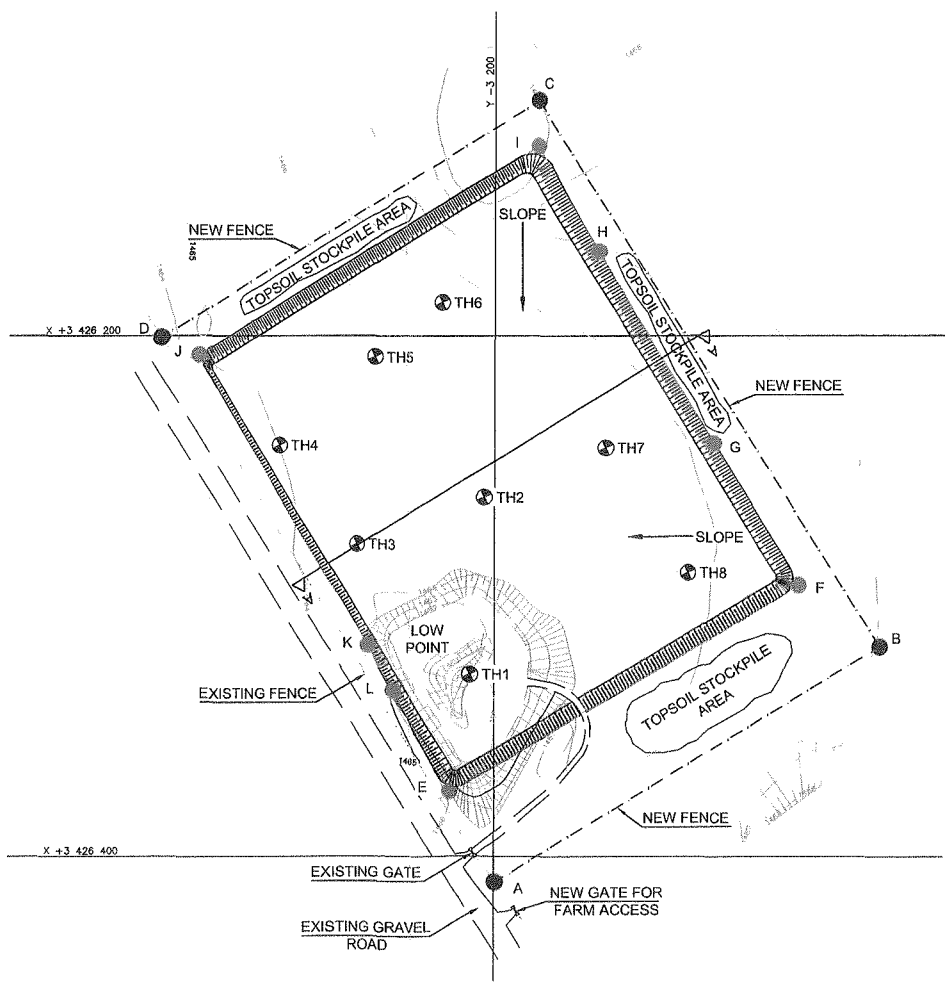
PROFILE
S



SUBGRADE AND FILL

- FARM

'95



EXTENT OF BORROW PIT

POINT ID	CO-ORDINATES : WGS84	
	Y	X
E	-3183.241	3426375.167
F	-3317.829	3426296.194
G	-3284.887	3426241.565
H	-3240.390	3426167.676
I	-3216.840	3426127.031
J	-3085.310	3426207.530
K	-3151.195	3426319.194
L	-3161.181	3426336.532

AREA OF PIT = 2,9 Ha

LEGEND

- TEST HOLES
- BORROW PIT BOUNDARY
- EXTENT OF BORROW PIT
- FENCE BOUNDARY
- FENCE LINE
- BATTER SLOPES



WESTERN REGION Parc du Cap, Building 5 C/o Mithel Sir & Willie van Schoor Ave Bellville 7530 Private Bag X19 Bellville South Africa Tel: (+27 21) 957 4600 Fax: (+27 21) 946 1630 <small>for CEO: SA NATIONAL ROADS AGENCY LTD</small>	APPROVED THIS APPROVAL IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OF ANY KIND FROM WHATSOEVER CAUSE OR HOWEVER ARISING	NATIONAL ROUTE	N9	SECTION	7	SHEET 1 OF 1 SCALE AS SHOWN (A0) DRAWING NUMBER: 14784_307
		PROJECT No.		NRA N.009-070-2007 / IF		
		REHABILITATION OF N9 SECTION 7 BORROW PIT DETAILS BORROW PIT 7 (N9_7/69.6/0.8R) MINING AND REHABILITATION PLAN				

**LANDOWNER ACKNOWLEDGEMENT
OF NOTIFICATION FORM**

APPENDIX C7.2

**VOORGESTELDE LEENGROEWE VIR DIE REHABILITASIE VAN DIE N9/7
TUSSEN WOLWEFONTEIN EN COLESBERG
BENUTTING VAN LEENGROEWE**

**PROPOSED BORROW PITS FOR THE REHABILITATION OF THE N9/7
BETWEEN WOLWEFONTEIN AND COLESBERG
UTILISATION OF BORROW PITS**

LEENGROEF NO./ BORROW PIT NO.	BORROW PITS 7) N9_7/69.6/0.8R AND 8) N9_7/69.6/0.3R
GEREGISTREERDE PLAAS NAAM/ REGISTERED FARM NAME	<i>RIET FONTEIN (ARUNDEL)</i>
GEREGISTREERDE EIENAAR/ REGISTERED OWNER	<i>H A J Wiem.</i>

Ek erken dat ek verwittig is deur die Nasionale Padagentskap (SANRAL) van die voorneme om bestaande leengroewe op my eiendom te benut, soos aangedui op die aangehegde plan, vir die rehabilitasie van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg; dat ek bewus is van die ligging en omvang van die gebied en dat toegang oor my eiendom benodig mag word.

I acknowledge that I have been informed of SANRAL's intention to utilise the existing borrow pits on my property indicated on the attached plan for the rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg; and that I am aware of the location and extent of the area and that access to the area may be required across my property.

HANDTEKENING VAN EIENAAR OF GEDELIGEERDE

**VERTEENWOORDIGER/ SIGNATURE OF OWNER OR DELEGATED
REPRESENTATIVE**

H A J Wiem.

STATUS INDIEN NIE GEREGISTREEDE EIENAAR NIE/ STATUS IF NOT

REGISTERED OWNER.....

DATUM/ DATE..... *13/8/10*

NAAM/ NAME..... *H A J Wiem.*

PART C8

BORROW PIT 8 (N9 7/69.6/0.3R)

C8 BORROW PIT 8 (N9_7/69.9/0.3R)

C8.1 PART 1: BRIEF PROJECT DESCRIPTION

C8.1.1 MINE OWNER AND MINE MANAGER/RESPONSIBLE PERSON

A contractor is still to be appointed by SANRAL to undertake the excavation of the proposed borrow pit. This is a preferred borrow pit for the supply of material for the rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg.

C8.1.2 NAME AND ADDRESS OF THE APPLICANT FOR PROSPECTING PERMIT OR MINING AUTHORISATION

Applicant: South African National Roads Agency Limited

Contact person: Mr Nelis Brink

Address: Private Bag X19, Bellville, 7530

Tel: (021) 957 4600

Fax: (021) 946 1630

C8.1.3 NAME AND ADDRESS OF THE OWNER OF THE LAND AND THE TITLE DEED DESCRIPTION

Farm name: Arundel

Owner: Mr HAJ Wium

Address: PO Box 21, Colesberg, 9795

Tel: 051 753 1448; 073 620 2448

Title deed information: T21638/1985

Size of the property: 2059.6334h

No mineral rights are indicated on the Deed of Transfer.

C8.1.4 REGIONAL SETTING

Borrow Pit 8 is an extension of an existing borrow pit that is located to the east of Section 7 of the N9, approximately 26 km south of Colesberg. Co-ordinates of the proposed borrow pit extension are presented in Table C8.1 below (refer to Figures C8.1 and C8.2 and borrow pit layout plan in Appendix C8.1).

Table C8.1 Co-ordinates of proposed Borrow Pit 8 (N9_7/69.6/0.3R).

Borrow pit co-ordinates (WGS84)		
	Y	X
J	-3117.995	3425836.246
K	-3158.032	3425900.412
L	-3193.393	3425919.155
M	-3240.628	3425822.552
N	-3203.720	3425806.974
O	-3135.948	3425799.530

C8.2 PART 2: DESCRIPTION OF THE PRE-MINING ENVIRONMENT SPECIFIC TO BORROW PIT 8 (N9_7/69.9/0.3R)

C8.2.1 CLIMATE

A general description of the climate is presented in Section B3.1.1.

C8.2.2 GEOLOGY

A general description of the geology is presented in Section B3.1.3. Material to be mined at the borrow pit is decomposed dolerite.

C8.2.3 TOPOGRAPHY

The contours of the area are presented in the borrow pit layout plan in Appendix C8.1. The proposed borrow pit site is a low hill which slopes to the northwest.

C8.2.4 SOIL

Based on the trial pit profiles there is a thin layer of topsoil up to a depth of 200 mm in places. The rest of the soil profile consists of decomposed dolerite.

C8.2.5 PRE-MINING LAND CAPABILITY AND LAND USE

The proposed site is an extension of an existing borrow pit in a fenced camp on veld utilised as natural grazing (see Plates C8.1-C8.4)

C8.2.6 VEGETATION

The vegetation type at the site is classified as Eastern Upper Karoo. The vegetation cover is currently very sparse with a low species diversity. The dominant species include *Eriocephalus ericoides* (kapokbos), *Eriocephalus spinescens* (doringkapok), *Aristida diffusa* (iron grass) and *Tragus koelerioides* (carrot seed grass). No rare or endangered plant species were found.

C8.2.7 FAUNA

The site is currently unfenced and is partially utilised for grazing of animals. No signs of animal life was observed on site.

C8.2.8 HYDROLOGY

There are no rivers or formal farm dams in close proximity to the borrow pit site.

C8.2.9 GEOHYDROLOGY

No ground water was found in the trial pit holes of which the deepest was 2.2 m.

C8.2.10 AIR QUALITY

The air quality in the study area is very good. The air quality is sometimes affected by dust from dirt farm tracks close to the existing borrow pit. As the proposed borrow pit extension is located

approximately 300 m east of the N9, it is not expected that dust from borrow pit operations would affect traffic along the N9.

C8.2.11 NOISE

The site is exposed to noise from the traffic along the N9. There are no residential dwellings in close proximity to the borrow pit site which could be affected by noise from borrow activities.

C8.2.12 ARCHAEOLOGY AND PALAEOLOGY

A low density scatter of weathered and patinated MSA and LSA dolerite flakes were documented on the approach to the proposed borrow pit. No stone flakes were found within the area of the proposed new borrow pit site.

No palaeontological material would occur as intrusive dolerite dykes do not host such material.

C8.2.13 SENSITIVE LANDSCAPE

No sensitive landscapes were identified.

C8.2.14 VISUAL ASPECTS

The borrow pit site would not be visible from the nearest residential dwellings and due to the distance from the N9 activities would largely not be visible for road users travelling along the N9.

C8.2.15 REGIONAL SOCIO-ECONOMIC STRUCTURE

See information provided in Section C3.3.

C8.2.16 INTERESTED AND AFFECTED PARTIES

The public participation process undertaken is presented in detail in Section A3.2.2. It should be noted that a notification letter was sent to Mr Wium (the owner) informing him of the proposed project and that a borrow pit had been identified on his property. Mr Wium was asked to complete an acknowledgement form (which is presented in Appendix C8.2) to indicate that he was made aware of the location and extent of the area and that access to the area may be required across his property, as well as to raise any issues of concern. No issues were raised by Mr Wium regarding the proposed extension of the borrow pit on his property. He did, however, request that a cattle creep be constructed underneath the N9 to allow for his livestock to safely cross the national road. The placement of cattle creeps has been discussed with landowners along the N9, including Mr Wium. construction of cattle creeps has been included in the scope of works as part of the road rehabilitation project.

C8.3 PART 3: BRIEF PROJECT DESCRIPTION

C8.3.1 BENEFITS OF THE PROJECT

The motivation for and potential benefits arising as a result of the project are presented in Section C1.

C8.3.2 CONSIDERATION OF ALTERNATIVES

The assessment of alternatives is presented in detail in Section C2.

C8.4 PART 4: DETAILED DESCRIPTION OF THE PROPOSED PROJECT

C8.4.1 SURFACE INFRASTRUCTURE

There would be no permanent surface infrastructure associated with the proposed borrow pit. Access would be from the south along the existing dirt track and Arundel road from the N9. The borrow pit is located in a fenced camp with an existing gate.

C8.4.2 WASTE MANAGEMENT

Material that is not suitable as material for the road rehabilitation project would be stockpiled and used as backfill. Any domestic waste would be collected in a waste bin and disposed of at a municipal waste site.

C8.4.3 WATER MANAGEMENT

The water requirements for the proposed borrow pit operations are expected to be minimal (e.g. dust suppression on access roads and borrow pit area). The water sources would be identified by the contractor.

The proposed borrow pit is situated on a gently sloping hill and would allow for free drainage of water towards the northwest.

C8.4.4 TRANSPORT

This would consist of trucks transporting the fill material from the borrow pit to the area of the road under construction.

C8.4.5 BORROW PIT LAYOUT AND DEVELOPMENT

Google Earth images of the proposed borrow pit site are included in Figures C8.1 and C8.2 together with proposed Borrow Pit 7 and the proposed site layout plan is included in Appendix C8.1.

The borrow pit would be approximately 0.8 ha in extent. Vegetation would be cleared from the site. Any seed-bearing material would be kept separate for use during rehabilitation or preferably mulched into the topsoil. Topsoil would, where possible, be stripped to a depth of 200 mm and stockpiled separately from other soil layers in piles not exceeding 2 m in height (as indicated in the borrow pit layout plan). Material that cannot be used for the road rehabilitation project would be used in the reshaping of the site during rehabilitation and would be stockpiled separately.

To minimise any impacts on the value of the surrounding land, care shall be taken to limit the extent of the area disturbed during construction activities. In this regard, the borrow pit site and associated activities and infrastructure shall be carefully planned, to ensure that the footprint is kept to a minimum. The proposed borrow pit would consist of one compartment (see the borrow pit layout plan).

The borrow pit would be excavated by means of ripping and loading with an excavator directly onto haul vehicles. Material would then be transported to the area of the road under construction.

The borrow pit would be mined to a maximum depth of 5 m. The end slopes would have slopes of approximately 1:5.

The borrow pit details are summarised in Table C8.2 below.

Table C8.2 Summary of Borrow Pit 8 (N9_7/69.6/0.3R)

Borrow pit area	0.8 ha
Maximum depth	5 m
Material quality	Sub Base
Volume of material	25 000 m ³

C8.5 PART 5: ENVIRONMENTAL IMPACT ASSESSMENT

This section describes the impact that would result from the proposed borrow pit. Mitigation measures are proposed that would mitigate negative impacts or enhance potential benefits. Impacts were assessed according to pre-defined rating scales (see Appendix 2), which are based on criteria set out in the EIA Regulations Guideline Document (Department of Environmental Affairs and Tourism, 1998). The impacts arising from the borrow pit development are presented in Table C8.1.

C8.6 PART 6: SITE REHABILITATION

There is a low species diversity at Borrow Pit 8 and it is expected that the seed bank would be limited.

During rehabilitation, the topography would be finished off so that the sides of the borrow area are no steeper than 1:5. The slope changes should be finished off so that flowing curves that blend with the surrounding landscape are formed in preference to sharp angles. Unused boulders would be placed back in the deepest areas of the excavated area and the topsoil and vegetation stripped during site clearance would be spread evenly across the borrow pit area. If insufficient topsoil is available for rehabilitation of Borrow Pit 8, it may be necessary to import some topsoil from the nearby Borrow Pit 7.

Introduction of seed of species such as *Eragrostis lehmanniana* (Lehmann's love grass) and *Pentzia incana* (ankerkaroo) should also be considered. If the existing access track to Borrow Pit 8 is widened during borrow activities, it should also be rehabilitated after completion of borrow activities.

C8.7 PART 7: ENVIRONMENTAL MANAGEMENT PROGRAMME

A generic EMP is presented in Section D, as it is the same for all eight borrow pits.

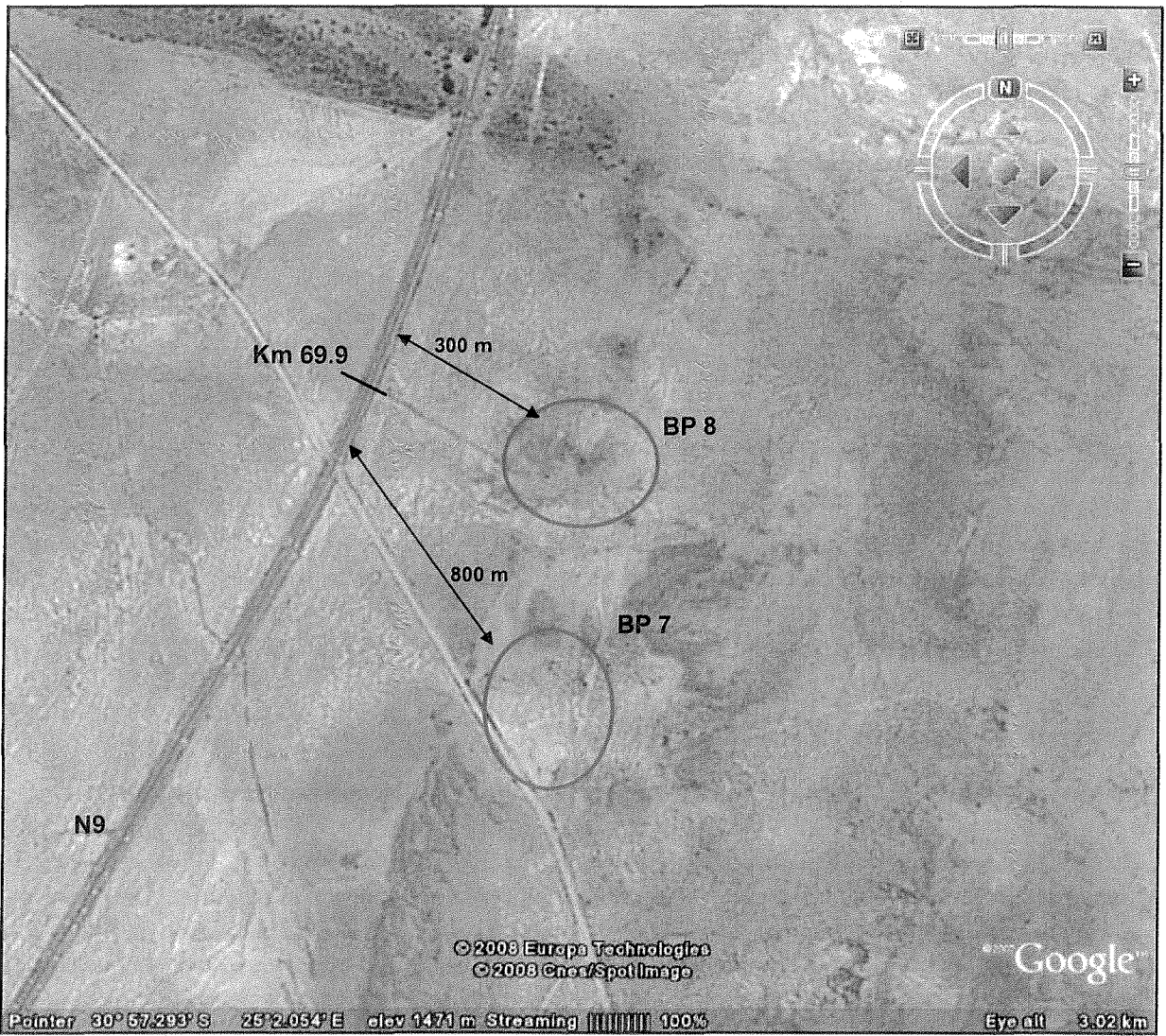


Figure C8.1 Google Earth Image showing the locations of BP 7 and BP 8 on the Farm Arundel.

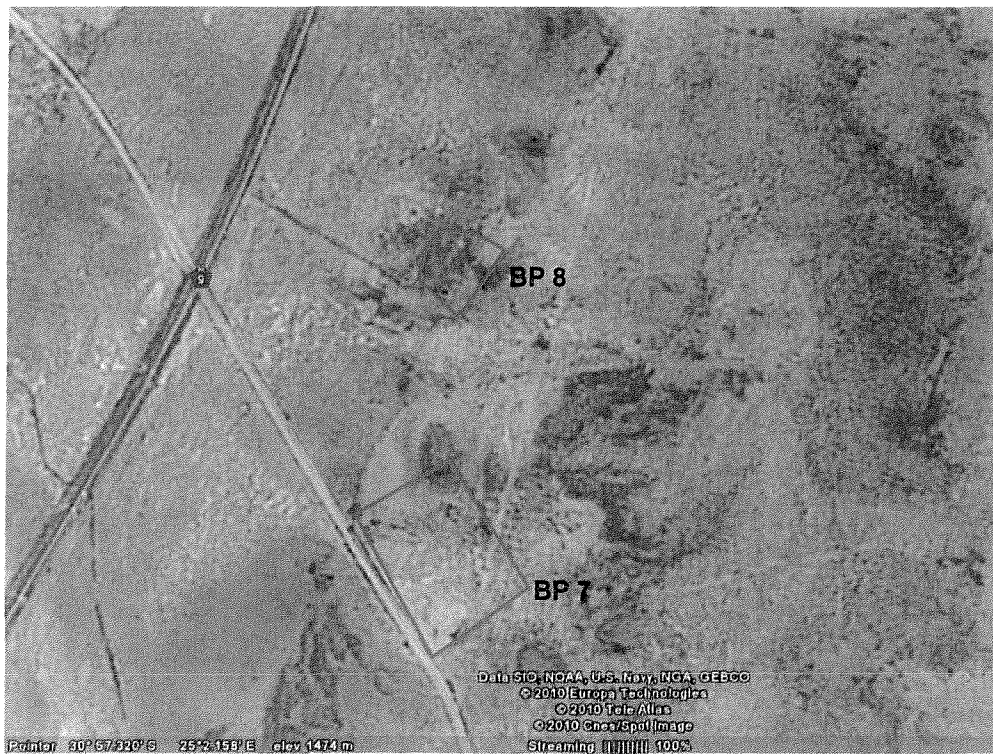


Figure C8.2 Google Earth Image showing the proposed mining areas of BP 7 (N9_7/69.6/0.8R) and BP 8 (N9_7/69.6/0.3R)



Plate C8.1 The borrow pit area. Photograph taken looking west towards the N9.



Plate C8.2 Photograph of the existing borrow pit. The proposed extension would entail removal of the low hill to the right of the photo.



Plate C8.3 Photograph taken from the southeastern edge of the borrow pit looking south.



Plate C8.4 Photograph taken looking towards the N9 in the west from the section of the borrow pit to be extended.

Table C8.1: Impacts arising from the proposed development of Borrow Pit 8 (N9_7/69.9/0.3R).

Environmental Aspect	Extent	Duration	Intensity	Probability	Confidence	Significance (before mitigation)	Proposed mitigation	Significance (after mitigation)
Geology	Local	Permanent	Low	Definite	Medium	Low	-	Low
Topography	Local	Permanent	Low	Definite	Medium	Low	The topography would be finished off so that the sides of the borrow pit are no steeper than 1:5. The slope changes must be finished off so that flowing curves that blend with the surrounding landscapes are formed in preference to sharp angles.	Very Low
Soil	Local	Short-term	Medium	Highly probable	High	Very Low	Stockpile topsoil and utilise during rehabilitation.	Very Low
Land use	Local	Short-term	Low	Probable	High	Very Low	Land disturbed shall be rehabilitated.	Very Low
Land capability	Local	Short-term	Low	Probable	High	Very Low	<ul style="list-style-type: none"> Demarcation and fencing of borrow pit site; Identification of no-go areas; and Land disturbed shall be rehabilitated. 	Very Low
Vegetation	Local	Short-term	Low	Highly probable	Medium	Low	There is very little topsoil and the seed bank will be limited. It is recommended that the thin layer of topsoil (and/or the present vegetation) should be removed and stored in wind rows not higher than one meter. Topsoil and vegetation stripped during site clearance would be spread evenly across the borrow pit area. If insufficient topsoil is available for rehabilitation of Borrow Pit 8, it may be necessary to import some topsoil from the nearby Borrow Pit 7. Introduction of seed of species such as <i>Eragrostis lehmanniana</i> (Lehmann's love grass) and <i>Pentzia incana</i> (ankerkaroo) should also be considered. Access should be restricted to the existing track.	Very Low
Fauna	Local	Short-term	Low	Probable	High	Very Low	Land disturbed shall be rehabilitated.	Very Low
Surface water	Local	Short-term	Low	Improbable	High	Very Low	All machinery and equipment shall be properly maintained, so that leaks do not appear and so that during servicing all oil, grease etc. is disposed of correctly.	Very Low
Groundwater	Local	Short-term	Low	Improbable	High	Very Low	All machinery and equipment shall be properly maintained, so that leaks do not appear and so that during servicing all oil, grease etc. is disposed of correctly.	Very Low
Air quality	Local	Short-term	Low	Highly probable	High	Very Low	Retain vegetation cover as long as possible to reduce the size of areas where wind could generate dust and spray water and/or other dust suppression agents to reduce dust.	Very Low

EMP: Proposed borrow pits for the proposed rehabilitation of the N9 between Wolwefontein and Colesberg

Environmental Aspect	Extent	Duration	Intensity	Probability	Confidence	Significance (before mitigation)	Proposed mitigation	Significance (after mitigation)
Noise	Local	Short-term	Low	Highly probable	High	Very Low	The contractor shall be required to be familiar with and adhere to any local by-laws and regulations regarding the generation of noise and hours of operation.	Very Low
Archaeology	Local	Short-term	Low	Probable	High	Very Low	-	Very Low
Palaeontology	No impact – Intrusive dolerite dykes do not host palaeontological material.							
Sensitive landscapes	No impact.							
Visual aspects	Local	Long-term	Low	Probable	High	Low	Land disturbed shall be rehabilitated.	Very Low
Regional socio-economic: employment	Local	Short-term	Low	Highly probable	High	Very Low (Positive)	Local labour shall be sourced.	Very Low (Positive)
Regional socio-economic: safety	Local	Short-term	Low	Probable	High	Low	<ul style="list-style-type: none"> The movement of construction vehicles shall be limited to daylight hours; and The dangers associated with the movement of large haulage vehicles shall be clearly sign-posted in both directions leading up to the proposed borrow pit. 	Very Low

**LANDOWNER ACKNOWLEDGEMENT
OF NOTIFICATION FORM**

APPENDIX C8.2

**VOORGESTELDE LEENGROEWE VIR DIE REHABILITASIE VAN DIE N9/7
TUSSEN WOLWEFONTEIN EN COLESBERG
BENUTTING VAN LEENGROEWE**

**PROPOSED BORROW PITS FOR THE REHABILITATION OF THE N9/7
BETWEEN WOLWEFONTEIN AND COLESBERG
UTILISATION OF BORROW PITS**

LEENGROEF NO./ BORROW PIT NO.	BORROW PITS 7) N9_7/69.6/0.8R AND 8) N9_7/69.6/0.3R
GEREGISTREERDE PLAAS NAAM/ REGISTERED FARM NAME	<i>RIET FONTEIN (ARUNDEL)</i>
GEREGISTREERDE EIENAAR/ REGISTERED OWNER	<i>H A J Wiem.</i>

Ek erken dat ek verwittig is deur die Nasionale Padagentskap (SANRAL) van die voorneme om bestaande leengroewe op my eiendom te benut, soos aangedui op die aangehegde plan, vir die rehabilitasie van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg; dat ek bewus is van die ligging en omvang van die gebied en dat toegang oor my eiendom benodig mag word.

I acknowledge that I have been informed of SANRAL's intention to utilise the existing borrow pits on my property indicated on the attached plan for the rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg; and that I am aware of the location and extent of the area and that access to the area may be required across my property.

HANDTEKENING VAN EIENAAR OF GEDELIGEERDE

VERTEENWOORDIGER/ SIGNATURE OF OWNER OR DELEGATED REPRESENTATIVE

H A J Wiem.
.....
Na.

STATUS INDIEN NIE GEREGISTREEDE EIENAAR NIE/ STATUS IF NOT

REGISTERED OWNER.....

DATUM/ DATE..... *13/8/10*.....

NAAM/ NAME..... *H A J Wiem.*.....

ENVIRONMENTAL MANAGEMENT PROGRAMME

PART D

PART D ENVIRONMENTAL MANAGEMENT PROGRAMME

This section applies to all proposed borrow pits.

D1. ENVIRONMENTAL MANAGEMENT PROGRAMME ADMINISTRATION

D1.1 REPORT AVAILABILITY

Copies of this EMP shall be kept at the site office and will be distributed to all senior contract personnel. All senior personnel shall be required to familiarise themselves with the contents of this document. The successful Contractor will be required to sign a "Commitment to Protection of the Environment" form (see pro forma in Appendix D1).

D1.2 ORGANISATIONAL STRUCTURE

The implementation of this EMP requires the involvement of several stakeholders, each fulfilling a different but vital role to ensure sound environmental management during the construction phase. These roles and responsibilities are discussed in detail below. Details of the organisational structure are presented in Figure D1. The structure illustrates the reporting procedures for stakeholders in the implementation of this EMP.

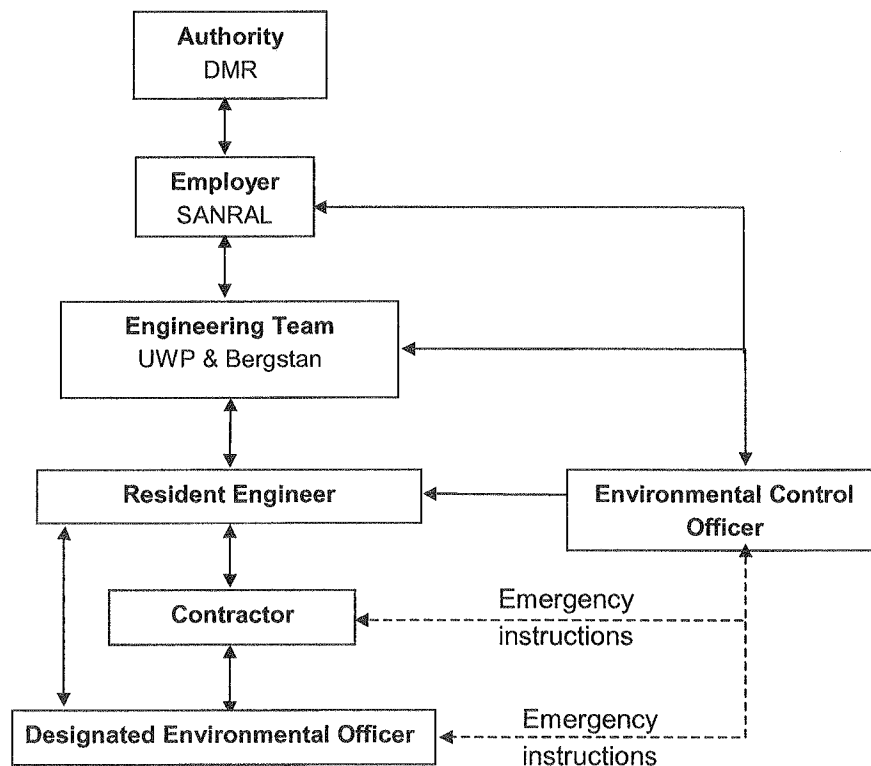


Figure D1 EMP implementation organisational structure.

D1.2.1 Authority: Department of Mineral Resources (DMR)

DMR is the designated authority responsible for authorising the development of the borrow pits and this EMP. DMR has overall responsibility for ensuring that the Applicant (SANRAL) complies with the conditions of its authorisation as well as this EMP.

DMR shall also be responsible for approving any amendments that may be required to this EMP and may perform random site inspections to check compliance with the EMP.

D1.2.2 Applicant: South African National Roads Agency Limited (SANRAL)

The Applicant is accountable for the potential impacts of activities that are undertaken and is responsible for managing these impacts. SANRAL as the Applicant/Employer therefore has overall environmental responsibility to ensure that the implementation of this EMP complies with the relevant legislation and the conditions of the authorisation.

The Applicant will appoint the Contractor to undertake the construction of the contract.

D1.2.3 Engineer

UWP and Bergstan as the Engineer Team will be responsible for the planning, design and construction supervision phases of the project and has the responsibility to ensure that the Employer's responsibilities are executed in compliance with relevant legislation and the authorisation. The Engineer shall appoint a Resident Engineer (RE) to act as on-site implementing agent.

The Engineer shall address any site problems pertaining to the environment at the request of the RE and/or the ECO. The Engineer shall also be responsible for issuing penalties for contravention of the Construction EMP

D1.2.4 Contractor

The Contractor refers to the team appointed by the Applicant to undertake the construction activities for the road rehabilitation and upgrade project. The Contractor shall have the following responsibilities:

- To implement all provisions of the EMP. If the Contractor encounters difficulties with specifications, he/she must discuss alternative approaches with the RE or ECO prior to proceeding.
- To ensure that all staff and Sub-Contractors are familiar with the EMP.
- To make personnel aware of environmental issues and to ensure they show adequate consideration of the environmental aspects of the project.
- To prepare the required Method Statements (see Section D1.3).
- To report any incidents of non-compliance with the EMP to the RE or ECO.

Failure to comply with the EMP may result in fines (see Section D1.5) and reported non-compliance may result in the suspension of work or termination of the contract by the RE.

D1.2.5 Resident Engineer (RE)

The RE would act as SANRAL's on-site implementing agent and has the responsibility to ensure that their responsibilities are executed in compliance with the EMP. Any on-site decisions regarding environmental management are ultimately the responsibility of the RE. The RE shall assist the ECO where necessary and shall have the following responsibilities in terms of the implementation of this EMP:

- Daily site inspections.
- Ensuring that the necessary environmental authorisations and permits have been obtained.
- Reporting to the ECO regarding implementation of the EMP.

- Reviewing and approving the Contractor's method statements with input from the ECO where necessary.
- Assisting the Contractor in finding environmentally responsible solutions to problems with input from the ECO where necessary.
- Ordering the removal of person(s) and/or equipment not complying with the EMP specifications.
- Issuing fines for transgressions of site rules and penalties for contravention of the Construction EMP.
- Providing input into the ECO's ongoing internal review of the EMP, which is submitted as a report to the Applicant.

D1.2.6 Environmental Control Officer (ECO)

The appointment of an ECO was included as a condition of approval in the Environmental Authorisation issued by DEA. The ECO will be an independent environmental consultant appointed by the Engineer to act as the Applicant's representative to monitor and review the on-site environmental management and implementation of this EMP by the Contractor.

The ECO shall undertake regular site inspections for the duration of the construction contract.

The ECO's duties shall include, *inter alia*, the following:

- Advising the Contractor and/or the RE on environmental issues within defined borrow pit areas.
- Maintaining open and direct lines of communication between the RE, Applicant, and Contractor with regard to environmental matters.
- Reviewing and approving the Contractor's construction Method Statements together with the RE.
- Undertaking regular site inspections of all construction areas to ensure compliance with the EMP and verifying that environmental impacts are kept to a minimum throughout the contract.
- Completing environmental checklists during site visits.
- Keeping a photographic record of progress on site from an environmental perspective.
- Assisting the Contractor in finding environmentally responsible solutions to problems.
- Advising on the removal of person(s) and/or equipment not complying with the specifications (via the RE).
- Recommending the issuing of fines for transgressions of site rules and penalties for contraventions of the EMP (via the RE).
- Auditing the implementation of the EMP and compliance with the Environmental Authorisation on a monthly basis linked to the site visits.
- Undertaking a continual review of the EMP and recommending additions and/or changes to the document to the Applicant for discussion.
- Ensuring that DMR is informed of work progress on site.
- Compiling a Performance Assessment Report regarding the EMP and its implementation during the construction period after completion of the contract and submitting this report to the Applicant and DMR (if requested by DMR).

D1.2.7 Environmental Officer (EO)

The appointed Contractor shall appoint a competent individual as the Contractor's on-site Environmental Officer (EO). The EO must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management to all personnel involved in the contract.

The EO shall be responsible for overseeing the Contractor's internal compliance with the EMP requirements and ensuring that the environmental specifications are adhered to.

The EO will be responsible for keeping detailed records of all site activities that may pertain to the environment. The EO's duties shall include, *inter alia*, the following:

- Undertaking daily site visits.
- Monitoring and verifying that the Construction EMP and Method Statements are adhered to at all times and taking action if specifications are not followed.
- Monitoring and verifying that environmental impacts are kept to a minimum.
- Assisting the RE and ECO in finding environmentally responsible solutions to problems.
- Inspecting the site on a regular basis with regard to compliance with the Construction EMP.
- Keeping accurate and detailed records of these inspections.
- Reporting any incidents of non-compliance with the Construction EMP to the RE and / or the ECO.
- Keeping a register of complaints on site and recording community comments and issues, and the actions taken in response to these complaints.
- Keeping a record of on-site incidents and accidents and how these were dealt with.

D1.3 METHOD STATEMENTS

The Contractor shall submit written Method Statements to the RE and ECO for all environmentally sensitive aspects of the work. A Method Statement Control Sheet, signed by the Contractor, must accompany each Method Statement (a pro forma Control Sheet is provided in Appendix D2). Method Statements shall cover applicable details with regard to:

- Construction procedures;
- Materials and equipment to be used;
- Getting equipment to and from site;
- How the equipment/material will be moved while on site;
- How and where material will be stored;
- The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur;
- Timing and location of activities;
- Compliance/non-compliance with the specifications; and
- Any other information deemed necessary by the Engineer, RE or ECO.

Method Statements shall be submitted to the RE and ECO **at least three (3) days prior** to the commencement of operations. It should be noted that Method Statements must contain sufficient information and detail to enable the RE and ECO to apply their minds to the potential impacts of the works on the environment. The Contractor will also need to thoroughly understand what is required of him / her in order to undertake the works.

Work shall not commence until Method Statements have been approved by the RE. Failure to submit Method Statements may cause the RE to order the Contractor to suspend part or all of the works concerned until a Method Statement has been submitted and approved. Failure to submit Method Statements at least three days prior to commencing the relevant activity may result in a fine (see Section D1.5). Any damage caused to the surrounding environment by work done without prior approval shall be rehabilitated at the Contractor's cost.

As a minimum the following Method Statements are required:

- MS1:** Location, preparation and layout of the borrow pit site (Section D2.1.1);
- MS2:** Storage of construction material and hazardous substances (Section D2.4.3);
- MS3:** Solid waste (Section D2.7.2);

- MS4:** Wastewater (Section D2.7.3);
- MS5:** Soil erosion and sedimentation control (Section D2.8);
- MS6:** Fire control (Section D2.11); and
- MS7:** Dust control (Section D2.12).

The RE and / or the ECO shall specify any additional Method Statements that may be required. Where relevant the Method Statements indicated above can be combined on agreement with the RE or ECO.

D1.4 ENVIRONMENTAL AWARENESS TRAINING

The Contractor shall ensure that adequate environmental awareness training of senior site personnel takes place and that all construction workers receive an induction presentation on the importance and implications of the EMP.

The presentation shall be conducted, as far as is possible, in the employees' language of choice. As a minimum, training should include:

- Explanation of the importance of complying with the EMP.
- Discussion of the potential environmental impacts of construction activities.
- The benefits of improved personal performance.
- Employees' roles and responsibilities, including emergency preparedness.
- Explanation of the mitigation measures that must be implemented when carrying out their activities.
- Explanation of the specifics of this EMP and its specification (no-go areas, etc.)
- Explanation of the management structure of individuals responsible for matters pertaining to the EMP.

A copy of the Environmental Do's and Don'ts shall be handed out to all employees (see Appendix D3).

The contractor shall keep records of all environmental training sessions, including names, dates and the information presented.

D1.5 FINES

Where the Contractor inflicts non-repairable damage upon the environment or fails to comply with any of the environmental specifications, he / she shall be liable to pay a fine. Non-compliance with the specifications of the Construction EMP constitutes a breach of Contract for which the Contractor may be liable to pay a fine. The Contractor is deemed not to have complied with the Construction EMP if:

- There is evidence of contravention of the Construction EMP specifications, including any non-compliance with an approved Method Statement;
- Construction activities take place outside the defined boundaries of the site;
- Environmental damage ensues due to negligence;
- The Contractor fails to comply with corrective or other instructions issued by the RE within a specific time period; and/or
- The Contractor fails to respond adequately to complaints from the public.

The payment of a penalty fine is subject to the following:

1. The Engineer may impose such fine only –

- If he / she is reasonably satisfied of the Contractor's failure to comply with the terms of the Contract dealing with protection of the environment;
- If he / she is reasonably satisfied that it is necessary to impose such fine in order to achieve future compliance; and

- After he / she has consulted with a person suitably experienced in "environmental management plans" (as defined in National Environmental Management Act, No. 107 of 1998) as to whether there has been a failure to comply with a term of the Contract dealing with protection of the environment and as to a reasonable amount of the fine.
2. The Engineer, in consultation with the RE and ECO, shall determine the amount of the penalty fine. The Engineer, in determining the amount of such fine, shall take into account *inter alia*, the nature of the offence, the seriousness of its impact on the environment, the degree of prior compliance/non-compliance, the extent of the Contractor's overall compliance with environmental protection requirements and, in particular, the extent to which he / she considers it necessary to impose a sanction in order to eliminate / reduce future occurrences. A proposed schedule of fines for environmental damage or Construction EMP transgressions is presented in Appendix D4.
 3. The Engineer shall, with respect to any fine imposed, provide the Contractor with a written statement giving details of the offence, the facts on which the assessment is based and the terms of the Contract (by reference to the specific clause) which has been contravened.
 4. At the sole discretion of the Engineer, they may at any time before one month after the issue of the Certificate of Completion (for the last completed portion of the Works should there be more than one), reverse all or some, in whole or in part, of previously imposed fine and shall include such reversed payment in a subsequent Payment Certificate.
 5. The sum total of all fines retained by the Employer after the processing of any Payment Certificate issued up to one month after the issue of the Certificate of Completion referred to above, shall, within one month be paid by the Employer to a charity mutually agreed upon by the Contractor and the Employer, failing which agreement, as determined by the Engineer following consultation with the two parties.
 6. Payment of any fines in terms of the contract shall not absolve the offender from being liable from prosecution in terms of any law.

If excessive infringement with regard to any of the above is registered, then the Employer reserves the right to terminate the Contractor's contract. Failure by any employee of the Contractor or their Sub-contractors to show adequate consideration to the environmental aspects of the contract shall be considered sufficient cause for the RE to have that employee removed from the site. The RE shall order the removal of equipment that is causing continual environmental damage

D1.6 INTERNAL REVIEW AND PERFORMANCE ASSESSMENT

The Contractor and EO shall establish an internal review procedure to monitor the progress and implementation of the EMP.

Where necessary, and upon the recommendation of the RE and/or the ECO, procedures that require modification will be changed to improve the efficiency of the EMP. All modifications to the EMP shall be approved by DMR, if possible, before any changes or adjustments to the EMP are implemented. Any changes or adjustments to the EMP shall be registered in the daily records of the RE. Adjustment and update of the original EMP document is not required when these *ad hoc* changes are made.

At the conclusion of the project a Performance Assessment report shall be compiled and submitted to DMR and SANRAL. This report shall be compiled by the ECO, in collaboration with the RE, EO and the Contractor. It shall, as a minimum, outline the implementation of the EMP, and highlight any problems and issues that arose during the construction period to report, on a formal basis, the lessons learned from this project.

D1.7 INFORMATION BOARDS

The Contractor shall be responsible for erecting general information boards on site. The general information boards (in English, Afrikaans and any other language if required) shall provide the name and contact number of the EO to ensure that the public can easily request information and/or lodge any complaints. This board should be erected at the borrow pit site office.

D2 CONSTRUCTION PHASE

D2.1 MANAGEMENT OF CONSTRUCTION SITE

D2.1.1 Location of Construction Camp

The construction camp refers to all storage stockpile sites, site offices, container sites and rest areas for workmen.

The construction camp(s) shall be located at an easily accessible point and within an area of low environmental sensitivity. No camp establishment shall be allowed within 32 m or below the 1:10 year flood line (where defined) of any watercourses, floodplains or drainage channels. The Contractor, RE and ECO shall agree on mutually acceptable locations for the establishment of the camp(s). The RE and ECO shall approve the final location of all camps prior to their establishment.

The construction shall be demarcated by a fence, the position of which will be agreed by the RE, ECO and the Contractor. Suitable signage must be erected to clearly demarcate these areas. The area outside the construction camp fence is considered to be a no-go area. Undertaking activities in these areas without the RE's or ECO's permission will result in a fine (see Appendix D4).

MS1 The Contractor shall submit a Method Statement indicating the location, preparation and layout of the borrow pit sites.

D2.1.2 Ablution Facilities

The Contractor is responsible for the erection and maintenance of adequate ablution facilities and for enforcing the use of these facilities. There should be one toilet for every 15 workers on site. Toilet(s) must be easily accessible and shall be secured in order to prevent them from blowing over.

The Contractor shall appoint a suitable subcontractor to empty toilets on a regular basis. The subcontractor shall ensure that there is no spillage when the chemical toilets are cleaned and that the contents are properly removed from site. The Contractor shall be responsible for ensuring that all ablution facilities are maintained in a clean and sanitary condition to the satisfaction of the RE.

Ablution facilities (chemical toilets, etc.) must be provided at all construction camp areas (within 50 m of all construction sites) where there will be a concentration of labour. Toilet paper must be provided.

D2.1.3 Eating Areas

The Contractor shall establish eating areas, as agreed with the RE. These areas shall provide adequate temporary shade to ensure that employees do not move off site to eat.

The Contractor shall provide adequate refuse bins at all eating areas to the satisfaction of the RE and shall ensure that all eating areas are cleaned up on a daily basis. Collected waste shall be stored in a central waste area approved by the RE and ECO within the construction camp.

Any cooking of food on site shall be done using gas cookers.

D2.1.4 Provision of Water

The Contractor shall be responsible for ensuring that there is access to clean drinking water for all employees on site. If water is stored on site, drinking water and multi-purpose water storage facilities shall be clearly distinguished and demarcated.

D2.1.5 General Aesthetics and Lighting

All construction areas shall be kept neat and tidy at all times. Different materials and equipment must be kept in designated areas and storing/stockpiling shall be kept orderly.

The Contractor shall ensure that any lighting installed on the site does not interfere with road traffic or cause a reasonably avoidable disturbance to the surrounding community.

D2.2 SITE DEMARCATION AND NO-GO AREAS

The layout and extent of the borrow pits shall be planned, designed and managed in such a manner that environmental impacts are minimised. Temporary structures and facilities shall be decommissioned to the satisfaction of the ECO and clean-up after construction shall be effectively undertaken.

D2.2.1 Site Layout and Establishment

Care shall be taken to limit the extent of the area disturbed during construction activities. In this regard, the borrow pit sites and associated activities shall be carefully planned, to ensure that the footprint is kept to a minimum.

The borrow pit sites, access points and access roads shall be properly demarcated and fenced off.. No personnel shall be allowed outside the fenced off area. Vehicle movement shall be limited to defined tracks and areas that will be excavated.

Care shall be taken to ensure that the placement of infrastructure does not adversely affect the environment or result in soil erosion.

D2.2.2 No-Go Areas

Areas where construction activities (including traffic accommodation) are prohibited are referred to as no-go areas. No-go areas have been identified as all areas outside of the fenced-off site. The RE shall, if necessary, identify additional appropriate no-go areas. No-go areas shall be fenced off. The removal, damage or disturbance of flora, fauna, avifauna, rock outcrops or any other natural features shall be forbidden in all demarcated no-go areas or specified environmentally sensitive areas, unless prior permission has been given by the ECO and RE. The RE may declare no-go areas at any time during the construction phase as deemed necessary and/or at the request of the ECO.

The Contractor shall be responsible for any clean-up and/or rehabilitation of all areas impacted by construction activities.

D2.3 SITE CLEARING AND EXCAVATION

D2.3.1 Site Clearing

Before clearing of vegetation, the contractor shall ensure that all litter and non-organic material is removed from the area to be cleared. No vegetation clearing shall take place without approval by the RE.

Vegetation clearing shall take place in a phased manner in order to retain vegetation cover for as long as possible in order to reduce the size of areas where dust can be generated by wind and sediment runoff may take place.

Every attempt shall be made to disturb as little natural vegetation as possible during site clearing.

No cut vegetation shall be burnt on site. All indigenous covering vegetation removed from borrow pit areas shall be mulched and mixed into the topsoil stockpile. This will improve the organic content of the soil and increase the seed base for vegetation regeneration.

Mulch shall be obtained from all areas where vegetation is cleared, after removal of alien vegetation and search and rescue of conservation-worthy species. No harvesting of mulch vegetation outside of construction areas shall be allowed. Every effort shall be taken to ensure the retention of as much seed as possible in mulch made from indigenous vegetation.

Plant material shall be reduced by either mechanical means (chipper) or by hand-axing to pieces no longer than 100 mm.

Brush-cut mulch shall be stored for as short a time-period as possible and seed released from stockpiles shall be collected for use in revegetation.

D2.3.2 Topsoil

Depending on depth, the Contractor shall remove topsoil to a minimum of 200 mm from all areas where topsoil will be impacted on by construction activities, including temporary activities such as storage and stockpiling, etc. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter.

Stripped topsoil shall be stockpiled in areas agreed with the RE for later use in revegetation and shall be adequately protected.

Topsoil stockpiles shall be convex and no more than 2 m high. Stockpiles shall be shaped so that no surface water ponding can take place. Material from different habitats / areas must not be mixed and material must be returned to the same habitats in the areas it was taken from. Storage time should be kept to a minimum, if possible not exceeding three months.

Topsoil stockpiles shall be protected from erosion by wind and rain by providing suitable stormwater and cut off drains and/or by establishing suitable temporary vegetation. Stockpiles shall not be covered with materials such as plastic that may cause it to compost or kill the seed bank.

Topsoil stockpiles shall not be subject to compaction greater than 1500 kg/m² and shall not be pushed by a bulldozer for more than 50 m.

Topsoil stockpiles shall be monitored regularly to identify any alien plants, which shall be removed when they germinate to prevent contamination of the seed bank.

Any topsoil contaminated by hazardous substances shall not be used but shall be disposed of at a Department of Water Affairs (DWA) approved landfill site.

The Contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the approved MS and the requirements of this EMP.

D2.4 MATERIALS HANDLING AND STORAGE

The potential environmental impact of handling, use, storage and disposal of materials used during construction shall be minimised.

D2.4.1 Transportation

The Contractor shall ensure that all suppliers and their delivery drivers are aware of procedures and restrictions (e.g. no-go areas) in terms of this EMP.

Material from the borrow pits shall be appropriately secured to ensure safe passage between destinations during transportation. Loads shall have appropriate cover to prevent them spilling from the vehicle during transit. The Contractor shall be responsible for any clean-up resulting from the failure by his employees or suppliers to properly secure transported materials.

The movement of construction vehicles should be limited to daylight hours. The dangers associated with the movement of large haulage vehicles shall be clearly sign-posted in both directions leading up to the proposed borrow pits.

D2.4.2 Stockpiling

The Contractor shall plan his activities so that materials extracted from the borrow pits, in so far as possible, can be transported directly to and placed at the point where it is to be used.

Should temporary stockpiling become necessary, the areas for the stockpiling of excavated material shall be indicated and demarcated on the site plan submitted in writing to the RE for his approval, together with the Contractor's proposed measures for prevention, containment and rehabilitation against environmental damage.

Stockpiles shall be positioned and sloped to create the least visual impact.

No foreign material generated/deposited during construction shall remain on site. Areas affected by stockpiling shall be reinstated to the satisfaction of the RE and ECO.

D2.4.3 Storage of Construction Material and Hazardous Substances

The storage of any materials (e.g. cement, oil, fuel, herbicides, etc.) shall not take place within 20 m of any watercourses, floodplains or drainage channels.

All fuel, oil and other hazardous substances shall be confined to demarcated, adequately banded areas within the construction camp and stored in suitable labelled containers.

Hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Fuel shall be stored in steel tanks supplied and maintained by the fuel suppliers. Tanks shall be adequately banded (110% of volume). The floor and wall of the bund area shall be impervious to prevent infiltration of any spilled/leaked fuel, oil or hazardous substance into the soil. Suitable fire fighting equipment, to the approval of the RE, shall be supplied and installed by the Contractor in the hazardous substances storage area.

The relevant Material Safety Data Sheets for all hazardous chemical substances (as defined in the Regulations for Hazardous Chemical Substances) shall be submitted to the RE. The Contractor shall have a copy of the Material Safety Data Sheets readily available and ensure that employees who are required to use such substances are fully conversant with the safe handling precautions, protective equipment to be used and storage precautions to be taken.

Areas for the temporary stockpiling of excavated material and other construction material shall be as agreed with the RE and ECO.

The Contractor shall ensure that run-off from any stockpile, fuel/oil or hazardous substance storage area is contained and does not pollute the ground or enter any watercourses or drainage channels in the project area.

MS2 The Contractor shall submit a Method Statement detailing the location of storage, methods intended for storage of oil, fuel, herbicides, pesticides and other hazardous substances. This Method Statement should also detail precautions that shall be implemented to limit spills and leakage of these substances.

D2.4.4 Storage of Equipment

All plant, construction equipment, vehicles or other items shall be stored within the construction camp, unless prior arrangements have been made with the RE or ECO.

Drip trays shall be provided for stationary plant (such as compressors, pumps, generators, etc.) and for parked plant (e.g. mechanised equipment).

D2.5 REFUELLING AND MAINTENANCE

Where reasonably practical, plant and vehicles shall only be refuelled in a demarcated refuelling/servicing area within the construction camp as agreed to with the RE and ECO. If this is not reasonably practical, then the surface under the temporary refuelling area shall be protected against pollution (e.g. the use of drip trays) to the reasonable satisfaction of the RE and/or the ECO prior to any refuelling activities. No refuelling shall be permitted within 20 m of any drainage channels.

The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/break down spills and where possible is designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle the total volume of the hydrocarbon stored on site. This material must be accepted by the RE prior to any refuelling or maintenance activities.

All vehicles and equipment shall be kept in good working order and serviced regularly to maximise efficiency and minimise pollution.

All maintenance, including washing and refuelling of plant on site shall take place at a designated location (i.e. workshop area). No maintenance or washing of vehicles shall take place at the borrow pit sites.

The Contractor shall ensure that no contamination of soil or vegetation occurs around the plant maintenance facilities.

Drip trays shall be used to collect used oil, lubricants, etc. during maintenance. Drip trays shall be provided for all stationary plant.

Washing of equipment shall be restricted to urgent maintenance requirements only. Adequate wastewater collection facilities shall be provided.

D2.6 ACCIDENTAL LEAKS AND SPILLS

The Contractor shall prevent pollution of surface or groundwater which could result from construction activities. Such pollution could result from the release, accidental or otherwise, of oils, fuels, sewage, etc.

The Contractor shall ensure that employees are aware of the procedure to be followed for dealing with leaks and spills. Any accidental lean or spill of fuel, oil or other hazardous substances is to be reported to the RE or EO immediately so that the best remediation method can be quickly implemented.

Drip trays shall be used for all pumps, generators, etc. in order to prevent water or soil contamination as a result of fuel leaks or spills. The Contractor shall ensure that the necessary materials and equipment for dealing with leaks and spills is available on site at all times.

In the event of a hydrocarbon spill, the source of the spillage shall be isolated and the spill contained. The area shall be cordoned off and secure. The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb or break down spilled substances and where possible is designed to encapsulate minor hydrocarbon spills. The quantity of such materials shall be sufficient to handle the total volume of the hydrocarbon/hazardous substance stored on site. Hydrocarbon contaminated material/soil shall be collected and stored in a bunded area for future disposal.

Procedures detailed in the relevant Material Safety Data Sheets shall be followed in the event of an emergency situation.

The Contractor shall be liable to arrange for professional service providers to clear the area affected by the spill, if required. The Contractor shall submit a Method Statement detailing the precautions that shall be implemented to limit spills and leakage of hydrocarbons and other hazardous substances.

D2.7 WASTE MANAGEMENT

Waste management on site shall be strictly controlled and monitored. Only approved waste disposal methods shall be allowed. The Contractor shall ensure that all site personnel are instructed in the proper disposal of all waste.

D2.7.1 Hydrocarbon and Hazardous Waste

All hydrocarbon (e.g. fuels, oils and contaminated soil/materials) and other hazardous waste resulting from spills, refuelling and maintenance activities shall be disposed of in a formally licensed hazardous waste site or, where possible, sold to an approved used oil recycling company. The Contractor shall provide the RE with disposal certificates issued by the hazardous waste disposal facility. In addition, disposal certificates shall be kept at the site office for inspection by any relevant authority.

Used oil, lubricants, cleaning materials, etc. from the maintenance of vehicles and machinery may be collected in holding tanks prior to disposal.

No hydrocarbon and hazardous waste shall be burnt or buried on site. Under no circumstances shall the spoiling or burial of tar or bituminous products be allowed at the borrow pit sites. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant.

D2.7.2 Solid Waste

Solid waste includes all construction waste (cement bags, old cement, tags, wrapping materials, timber, cans, wire, nails, etc.) and surplus food, food packaging, organic waste, etc. The Contractor shall be responsible for the establishment of a solid waste control and removal system that is acceptable to the RE and ECO in order to prevent the spread of waste in, and beyond, the construction site. Wherever possible, an integrated waste management approach shall be used, based on the principles of waste minimisation, reduction, reuse and recycling of materials. Containers for glass, paper, metals and plastics shall be provided. The construction camp areas are particularly suited for this purpose.

The Contractor shall ensure that the site is maintained in a neat and tidy condition and kept free of litter. Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. The Contractor shall provide metal refuse bins (BS 792 standard) or equivalent plastic refuse bins, all with lids. Refuse shall be collected and removed from site at least once per week or more if required. Domestic waste shall be transported to the approved refuse disposal site in covered containers or trucks.

The Contractor shall ensure that each borrow pit site is cleaned up on a daily basis. The general cleanliness of the borrow pit sites shall form part of the RE's and EO's daily inspections.

Solid waste may be temporarily stored on site in a designated area approved by the RE prior to collection and disposal. Waste storage containers shall be covered, tip-proof, weatherproof and scavenger proof. The waste storage area shall be fenced off to prevent wind-blown litter.

No burning, on-site burying or dumping of waste shall occur.

All solid waste shall be disposed of off site at an approved landfill site. No waste shall be burnt or buried on site.

MS3 The Contractor shall submit a Method Statement detailing a solid waste control system (storage, provision of bins, site clean-up schedule, bin clean-out schedule, etc.) to the RE and ECO for approval.

D2.7.3 Wastewater

The Contractor shall prevent pollution of surface or groundwater from the release, accidental or otherwise, of contaminated water (including contamination with chemicals, oils, fuels, cement, sewage, construction water, etc.) as a result of construction activities.

The Contractor shall be responsible for the construction and operation of necessary collection facilities in order to prevent such pollution and/or settlement of suspended matter, and shall dispose of the collected waste as approved by the RE. Water from any kitchen, showers, laboratories, sinks, etc. shall be discharged into a conservancy tank for removal from the site.

The Contractor shall ensure that water runoff from any construction operation on site passes through an oil separation/settlement system before being released or alternatively is directed into a conservancy tank for disposal at a site approved by the ECO and local authority.

Temporary stormwater drainage and detention from the works areas shall be designed in collaboration with the RE and ECO. No wastewater shall be disposed of directly into any surface water bodies.

MS4 The Contractor shall submit a Method Statement detailing how wastewater would be collected from all wastewater generating areas, as well as storage and disposal methods to the RE and ECO.

D2.8 SOIL EROSION AND SEDIMENTATION CONTROL

The Contractor shall, as an ongoing exercise, implement erosion and sedimentation control measures to the satisfaction of the RE.

During borrow activities, the Contractor shall protect all areas susceptible to erosion by installing necessary temporary drainage channels as soon as possible and by taking any other measures necessary to prevent stormwater from concentrating in streams and scouring slopes. Any runnels or erosion channels developed during borrow area development shall be backfilled and compacted and the areas restored to a proper condition.

The Contractor shall prevent pollution of surface water which could result from construction activities.

Stabilisation of cleared areas to prevent and control erosion and/or sedimentation shall be actively managed. The method of stabilisation shall be determined in consultation with the RE or ECO.

The Contractor shall demarcate stabilised areas with painted stakes or hazard tape. Traffic and movement over stabilised areas shall be restricted and controlled by the Contractor, and damage to stabilised areas shall be repaired and maintained by the Contractor to the satisfaction of the ECO.

During borrow activities the Contractor shall implement measures to prevent the migration of material (fines) from the works into drainage lines and stormwater and sewage systems. This may include the use of a cut-off trench, straw bales or geofabric siltation barriers constructed across the site at specific points.

In areas where borrow activities have been completed and where no further disturbance would take place, rehabilitation and revegetation should commence as soon as possible.

MS5 A Method Statement shall be developed and submitted to the RE to deal with any erosion and sedimentation issues.

D2.9 SURFACE WATER

The Contractor shall shape the borrow pit floors in accordance with the borrow pit layout plans to ensure that water does not accumulate within the borrow pits.

D2.10 PROTECTION OF NATURAL FEATURES, FLORA AND FAUNA

D2.10.1 Protection of Natural Features

The Contractor shall not deface, paint, damage or mark any natural features situated in or around the borrow pit sites for survey or other purposes unless agreed beforehand with the RE. Any features affected by the Contractor in contravention of this clause shall be restored/rehabilitated to the satisfaction of the RE and ECO.

D2.10.2 Vegetation and Fauna

No activities shall take place outside the demarcated site areas. The removal, damage or disturbance of flora, fauna or avifauna is forbidden in all demarcated no-go areas. The removal of vegetation prior to mining shall be limited to the areas required for access roads and establishment of the borrow pits.

All covering vegetation shall be removed from areas to be used, mulched and mixed into the topsoil stockpile. This will improve the organic content of the soil and increase the seed base for vegetation regeneration.

Contract workers will be instructed not to kill any wildlife or other animals spotted in the area and site gates shall be kept closed to prevent wandering animals from entering the premises. The removal, damage and disturbance of natural vegetation without the written approval of the RE are prohibited.

The use of herbicides and pesticides is prohibited unless approved by the RE.

Land disturbed during borrow pit development shall be rehabilitated

D2.11 FIRE CONTROL

No open fires shall be allowed on site for the purpose of cooking or warmth. *Bona fide* braai fires (such braai fires shall be limited to the traditional "week or month end" braais and not individual daily cooking fires) may be lit within the construction camp.

The Contractor shall take all reasonable steps to prevent the accidental occurrence or spread of fire. The Contractor shall appoint a fire officer who shall be responsible for ensuring immediate and appropriate action in the event of a fire. The Contractor shall ensure that all site personnel are aware of the procedure to be followed in the event of a fire.

The Contractor shall ensure that there is basic fire-fighting equipment on site at all times. This equipment shall include fire extinguishers and beaters. The Contractor shall pay the costs incurred by organisations called to put out fires started by himself/herself, his/her staff or any sub-contractor. The Contractor shall also pay the costs incurred to reinstate burnt areas as deemed necessary by the RE.

Any work that requires the use of fire may only take place at that designated area and as approved by the RE. Fire-fighting equipment shall be available in these areas.

The Contractor shall ensure that the telephone numbers of the local Fire and Emergency Service are displayed at the site offices.

The Contractor shall ensure compliance with the requirements of the Veld and Forest Fires Act (Act 101 of 1998) in terms of establishing a Fire Protection Association with landowners and adjacent landowners.

Smoking is not allowed on site, other than at designated smoking points.

MS6: Prior to the commencement of construction activities, the Contractor is to ascertain the fire requirements of the Umsobomvu Local Municipality and must submit a fire contingency plan Method Statement to the RE.

D2.12 DUST CONTROL

The Contractor shall ensure that the generation of dust is minimised and shall implement a dust control programme to maintain a safe working environment and minimise nuisance for the surrounding businesses and residential area.

The Contractor shall ensure that exposed soil and material stockpiles are adequately protected against the wind (e.g. water spray vehicles, covering of material stockpiles, etc.). The location of stockpiles shall take into consideration the prevailing wind directions and locations of sensitive receptors.

Construction vehicles shall comply with speed limits (speed limit for light vehicles is 40 km/hr and for heavy vehicles 20 km/hr) and haul distances shall be minimised. Material loads shall be suitably covered and secured during transportation.

MS7 The Contractor shall submit a Method Statement detailing the control of dust on site.

D2.13 NOISE AND HOURS OF OPERATION

The Contractor shall be familiar with and adhere to, any local by-laws and regulations regarding the generation of noise and hours of operation. In addition, the provisions of SABS 1200A Subclause 4.1 regarding "built-up areas" shall apply to all areas within audible distance of residents whether in urban, peri-urban or rural areas.

The Contractor shall avoid construction activities outside of "normal working hours". This should be determined together with the local authority. The Contractor shall negotiate for any permits requiring deviation from local by-laws and/or regulations with the local authority. However, the Contractor shall advise the RE and ECO in writing of such intention prior to negotiating for these permits. The Contractor shall be held responsible for any complaints received from the authority and/or public with respect to any contravention of the agreed conditions.

D2.14 PRIVATE PROPERTY ACCESS AND SECURITY

The Contractor shall contact and notify the landowner(s) prior to undertaking any construction activities on his/her property as per the defined works.

The Contractor shall ensure that employees do not enter private properties adjacent to the borrow pit sites under any circumstances except on official business.

D2.15 TRAFFIC ACCOMMODATION

The Contractor shall appoint a Traffic Safety Officer (TSO). The TSO shall be required to ensure that borrow pit activities do not obstruct traffic and that adequate traffic accommodation measures are put in place. In general, the TSO shall ensure that regular road users are not unreasonably delayed due to borrow pit activities.

D2.16 VISUAL ASPECTS

The exposure of bare soil through the removal of vegetation prior to mining shall be restricted to those areas required for access roads and the establishment of the borrow pits. Rehabilitation shall take place as soon as possible after mining is completed. Land disturbed by construction activities shall be rehabilitated as described in Section D3.

D2.17 REGIONAL SOCIO-ECONOMIC ASPECTS

To ensure that previously disadvantaged individuals benefit from the proposed project during the construction phase local Black Enterprise (BE) service providers and local labour from the surrounding community should be employed as far as possible.

Those successful in obtaining employment should be provided with the appropriate training.

D3. DECOMMISSIONING PHASE

D3.1 CLOSURE OBJECTIVES

The objectives during decommissioning of the sites are to restore disturbed areas as closely to their original state as possible through rehabilitation.

D3.2 INFRASTRUCTURE AREAS

After closure, borrow pit access roads shall be restored to their previous condition or scarified and rehabilitated if so requested by the landowner.

All temporary site infrastructure is to be removed and all waste is to be disposed of at a licensed waste disposal site.

D3.3 MINE RESIDUE DEPOSITS

There shall not be any residue deposits. Stockpiled overburden shall be used to re-shape the site to blend in with the surrounding environment and topsoil will be spread over the site.

D3.4 FINAL REHABILITATION

D3.4.1 Timing and Implementation

The rehabilitation programme shall be implemented as soon as possible after completion of the mining operations. As much of the revegetation as possible shall take place at the start of the summer rains to maximise water availability and minimise the need for watering.

D3.4.2 Slope and Contouring

The Contractor shall grade the slopes of the borrow pits to blend in with the natural slope of the surrounding area. All slope changes shall be finished-off so that flowing curves that blend into the surrounding landscape are formed in preference to sharp angles. The surface of the borrow pit and access roads shall be ripped to a depth of at least 300 mm. All overburden material shall be levelled and reshaped so as to correspond with the surrounding landscape. Topsoil (which includes mulched vegetation material removed during vegetation clearing), removed and stockpiled during mining, shall be spread evenly over the disturbed areas to a depth of 200 mm, where possible.

D3.4.3 Erosion Control Measures

Precautions should be taken to prevent soil erosion during rehabilitation. Erosion control measures (e.g. application of straw mulches or soil binders to exposed soil) shall be put in place in all rehabilitated areas, including access roads, stockpiles and any other disturbed areas associated with the borrow pit operations.

D3.4.4 Revegetation

The Contractor shall appoint a suitably experienced Landscaping Contractor/Horticulturist who is familiar with the local vegetation. His/her appointment must be approved by the RE. The Landscaping Contractor/Horticulturist shall compile a vegetation rehabilitation plan that shall detail search and rescue, seed collection, seed mixing, seeding methods, planting and vegetation establishment in all borrow pit areas. For very disturbed areas, the soil can be reseeded with a commercially available reseeded mixture. The Contractor shall submit the vegetation rehabilitation plan to the RE for approval.

The vegetation rehabilitation plan shall include the following:

- Seed requirements, harvesting methods and locations, seed storage methods;
- Search and rescue;
- Handling of plant material rescued (translocation areas, propagation, etc.);
- Establishment and maintenance of a project-specific nursery, if required;
- Topsoil, mulch, fertiliser, soil stabiliser and irrigation requirements and application;
- Landscaping and revegetation methods for each area, i.e. hydroseeding / hydromulching, planting, including locations and timing;
- Procurement requirements and a list of species of plants to be procured, if any;
- Vegetation establishment and maintenance requirements (irrigation, etc.) for all revegetated areas; and
- The use of any herbicides, pesticides and other poisonous substances, if required.

The following general recommendations for rehabilitation were made by the vegetation specialist and should be considered by the appointed horticulturist:

- All proposed borrow pit areas should be fenced off to exclude grazing and allow for seed production for as long as possible for the start of borrow activities;
- Stripped topsoil should be evenly spread across disturbed areas after decommissioning;
- Branches, rocks or any other coarse organic material should be scattered over the area to create favourable microclimates for seed germination and seedling establishment;
- Reseeding of cleared areas should take place during autumn or spring when temperatures are not too high and the probability for rainfall is high;
- Rehabilitated areas should be protected from grazing for at least 12 to 18 months to allow for proper revegetation; and
- Seed for rehabilitation purposes can be obtained from the following sources:
 - Species: *Digitaria eriantha* and *Sporobolus fimbriatus*
Mr H van Rooyen: 051 933 7000
 - Species: *Eriocephalus ericoides* and other Karoo shrubs
Mr H Botha: 023 347 1121
 - Species: Karoo shrubs
Prof S Milton: 023 541 1828
 - Species: *Eragrostis lehmanniana* and other grass species
North West University – Potchefstroom Campus

D3.5 MAINTENANCE / MONITORING

Precautions shall be taken to prevent soil erosion during rehabilitation. If necessary, wind protection measures such as shade cloth screens shall be erected to protect the soil and vegetation. The invasion of alien vegetation shall be controlled by undertaking an alien eradication programme a year after rehabilitation has been completed, if required.

The sites shall remain fenced off until the rehabilitation process is complete. The areas shall not be grazed until such time as the area is stabilised.

Ongoing and regular (annual) monitoring of the rehabilitation programme shall be undertaken and a performance assessment report shall be prepared in terms of Regulation 55 of the Mineral and Petroleum Resources Development Act (No. 28 of 2002). Monitoring shall take place until closure has been obtained.

D4. PROPOSED TIMING

The road rehabilitation and upgrade project is anticipated to start in the first quarter of 2011 and to continue for a two year period. As no contractor has been appointed at the time of the compilation of this report, it is not possible to provide a detailed timing of the proposed construction phase. It is not known when the borrow pit excavation activities would commence as they would be opened as and when needed. Closure and rehabilitation of borrow pit sites would take place as soon as the required material has been removed from the borrow pit.

D5. FINANCIAL PROVISION

The contract would include a 10 % retention (up to a limit of R1 million) which is to be withheld until all work (inclusive of a rehabilitation work set out in the EMP) has been completed to the satisfaction of the engineering team and DMR.

ENVIRONMENTAL AGREEMENT

APPENDIX D1

**EIGHT BORROW PITS FOR THE REHABILITATION
OF THE N9/7 BETWEEN
WOLWEFONTEIN AND COLESBERG:**

ENVIRONMENTAL AGREEMENT

Contract No.: _____

BORROW PIT ENVIRONMENTAL MANAGEMENT PROGRAMME (EMP)

MADE AND ENTERED BETWEEN:

South African National Roads Agency Limited (SANRAL)

Herein represented by: _____

In his / her capacity as: _____

Duly authorised hereto

Hereafter referred to as "APPLICANT"

AND

Herein Represented by: _____

Duly authorised hereto

Hereafter referred to as the "THE CONTRACTOR"

The parties record that the Contractor shall bear the following obligations in terms of this Agreement:

1. Comply with all provisions of the Construction EMP;
2. Comply with the requirements of the Occupational Health and Safety Act (No. 85 of 1993);
3. Bind any Sub-Contractors to comply with the Construction EMP to which this agreement is appended;
4. Enforce compliance with the Construction EMP by:
 - Appointing an Environmental Officer; and
 - Ensuring that all staff are familiar with the Construction EMP.
5. Protect the environment of the site against environmental damage;
6. To make good any environmental damage; and
7. Failure to comply with the Construction EMP may result in fines and reported non-compliance may result in the suspension of work or termination of the contract.

SIGNATORIES

Date at _____ on this _____ day of _____ 20__

For **APPLICANT**

(signed) _____

Print name: _____

(duly authorised)

As Witnesses:

1. _____

2. _____

Date at _____ on this _____ day of _____ 20__

For **CONTRACTOR**

(signed) _____

Print name: _____

(duly authorised)

As Witnesses:

1. _____

2. _____

METHOD STATEMENT CONTROL SHEET

APPENDIX D2

**EIGHT BORROW PITS FOR THE REHABILITATION
OF THE N9/7 BETWEEN
WOLWEFONTEIN AND COLESBERG**

Contract No. _____

METHOD STATEMENT CONTROL SHEET

[THIS CONTROL SHEET IS TO BE ATTACHED TO ALL METHOD STATEMENTS]

MS Number:

THIS SECTION TO BE COMPLETED BY CONTRACTOR/METHOD STATEMENT AUTHOR ONLY

TITLE:
DESCRIPTION:
SUBMITTED BY:

DATE REQUESTED BY RE: DATE SUBMITTED:

DATE RESPONSE REQUIRED BY: DATE WORK START:

REVIEW SCHEDULE		
DATE	AUTHORITY	COMMENTS

DISTRIBUTION AND AUTHORISATION			
	RE	ECO	CONTRACTOR
Name			
Signature			
Date			

CONTRACTOR NOTE: METHOD STATEMENTS SHOULD ADDRESS THE FOLLOWING:	
WHAT	Brief description of the work to be undertaken
HOW	Detailed description of the process of work, methods and materials
WHERE	Description/sketch/map of locality of work (where applicable)
WHEN	Due commencement date and completion date estimate (day/night work)

ENVIRONMENTAL DO'S AND DON'TS

APPENDIX D3

DO'S AND DON'T'S



Workers & equipment must stay inside the site boundaries at all times



Do not swim in or drink from streams
Do not throw oil, petrol, diesel, concrete or rubbish in the stream
Do not work in the stream without direct instruction



Do not damage the banks or vegetation of the stream



Protect animals on the site
Ask your supervisor or Contract's Manager to remove animals found on site



Do not damage or cut down any trees or plants without permission
Do not pick flowers



Put cigarette butts in a rubbish bin
Do not smoke near gas, paints or petrol
Do not light any fires without permission
Know the positions of fire fighting equipment
Report all fires
Do not burn rubbish/ vegetation without permission



Work with petrol, oil & diesel in marked areas
Report any petrol, oil & diesel leaks or spills
Use a drip tray under vehicles & machinery
Empty drip trays after rain & throw away where instructed



Try to avoid producing dust - wet dry ground & soil

Do not make loud noises around the site, especially near schools and homes
Report or repair noisy vehicles



Use the toilets provided
Report full or leaking toilets



Only eat in demarcated eating areas
Never eat near a river or stream
Put packaging & leftover food into rubbish bins



Do not litter - put all rubbish (especially cement bags) into the bins provided
Report full bins to your supervisor
The responsible person should empty bins regularly



Always keep to the speed limit
Drivers - check & report leaks
Ensure loads are secure & do not spill



Know all the emergency phone numbers



Spot fines of between R20 and R2000
Removal from site
Construction may be stopped



Report any breaks, floods, fires, leaks and injuries to your supervisor
Ask questions!

MOETS EN MOENIES



Werkers en gereedskap moet ten alle tye binne die terreingrense bly.



Moenie van strome drink of daarin swem nie.
Moenie olie, petrol, diesel, sement of rommel in strome gooi nie.
Moenie in strome werk sonder direkte instruksie nie.
Moenie stroomoewers en plantegroei beskadig nie.



Beskerm diere op die konstruksieterrein.
Vra u toesighouer of Kontrakbestuurder om diere van die terrein te verwyder.



Moenie enige plante of bome beskadig of afsny sonder toestemming nie.
Moenie blomme pluk nie.



Gooi sigaretstompies in 'n asblik.
Moenie rook naby gas, verf of petrol nie.
Moenie sonder toestemming enige vure maak nie.
Weet waar brandbestrydingstoerusting gestoor word
Meld alle vure onmiddelik aan.
Moenie rommel verbrand sonder toestemming nie.



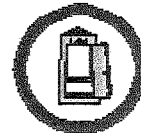
Werk slegs in gemerkte areas met petrol, olie & diesel.
Meld alle petrol, olie en diesel lekkasies aan.
Gebruik 'n drupbak onder voertuie en masjienerie.
Maak drupbakke leeg na reën, maar nie in riviere nie



Probeer om nie stof te maak nie.
Maak droë grond nat met water.



Moenie harde geluide maak op die terrein nie, veral naby skole en huise.
Meld roserige voertuie aan of herstel dit.



Gebruik die toilette wat voorsien is.
Meld vol of lekkende toilette aan.



Eet slegs in gemerkte gebiede.
Moenie naby riviere of strome eet nie.
Gooi verpakking en orige kos in vullisblikke.



Moenie vullis rondstrooi nie - gooi alle vullis (veral sementsakke) in vullishouers.
Meld vol vullishouers aan by u toesighouer.
Vullishouers moet gereeld leeggemaak word.



Moet nooit die spoedperk oorskry nie.
Bestuurders - gaan voertuie na en meld lekkasies of rokerige voertuie aan.
Maak seker dat alle vragte stewig is en nie mors nie.



Maak seker dat u alle nood telefoonnommers ken.



Boetes tussen R20 en R2000
Verwydering vanaf die konstruksieterrein.
Konstruksie mag gestop word.



Meld alle brekasies, vure, vloede, lekkasies en beserings aan by u toesighouer.
Vra vrae!

EMAZENZIWE NE MAZINGENZIWA



Abasebenzi nezixhobo abazisebenzisayo mabangaphumi nazo ngaphaya kwesayiti



Sukuqubha okanye usele amanzi omlambo
Sukugalela ioil, petrol, diesel, concrete okanye inkukuma emlanjeni
Sukonakalisa iindonga (zomlambo) okanye izintyalo



Khusela izilwanyana ezilapho esayitini
Xelela isupervisor ukuba zimkiswe ezozilwanyana



Ungonakalisi okanye ugawule imithi ngaphandle kwemvume
Sukwemba izityalo



Xa ugqibile ukutshayo galela emgqomeni (izitimpi zecuba)
Sukutshaya kufuphi negesi, ipeyinti ne petroli
Sukubasa umlilo ngaphandle kwemvume
Zazi izicima mlilo apho zikhoyo
Sukutshisa inkukuma naaphandle kwemvume



Sebenzisa ipetrol, oil ne diesel endaweni yayo
Faka isitya sokukhongozela phansi kwemashini
Ungagaleli oil emlanjeni



Zama ungenzi uthuli fefa ngamanzi emhlabeni



Sukwenza ingxolo eshayitini ngakumbi kufuphi nesikolo nezi ndlu
Yazisa ulungise isithuthi esonakeleyo



Sebenzisa itoilet (izindlu zangasese)
Xela xa zizeleyo



Tyela kwindawo eyenzelwe oko
Sukutyela kufuphi nomlambo
Lahla emgqomeni yonke inkukuma



Sulahlia inkukuma phantsi
Galela emgqomeni yonke inkukuma xela xa izele imigqomo
Xela xa umgqomo uzele



Gcina isantya
umqhubi makayilungise inqwelo xa yonakele
Qononondisa umthwalo ubotshiwe enqweleni



Zazi inombolo zengozi



Intlawulo ngokwaphula umthetho yi R20 - R2000
Okanye ugxothwa emsebenzini
Contract leyo imiswe



Ripota wonke umanakalo ofana nokuqhekeza, isiphango umlilo, ukuvuza kwemashini nengozi kwi supervisor
Buza xa unombuzo

APPENDIX D4

LIST OF FINES

LIST OF FINES

SCHEDULE OF FINES FOR ENVIRONMENTAL DAMAGE OR EMP TRANSGRESSIONS

(Based on City of Cape Town: Standard Environmental Specifications – Ver 5 (03/2002))

Note: The maximum fine for any environmental damage will never be less than the cost of applicable environmental rehabilitation.

CEMP TRANSGRESSION OR RESULTANT ENVIRONMENTAL DAMAGE	MIN. FINE	MAX. FINE
Failure to comply with prescriptions regarding appointment of an Environmental Officer and monitoring of Construction EMP compliance.	R500	R1000
Failure to comply with prescriptions regarding environmental awareness training.	R500	R5000
Failure to comply with prescriptions regarding method statements.	R500	R5000
Failure to report environmental damage or EMP transgressions to the RE or ECO.	R500	R1000
Failure to carry out instructions of the RE or ECO regarding the environment or the Construction EMP.	R500	R1000
Failure to comply with prescriptions posting of emergency numbers.	R500	R5000
Failure to comply with prescriptions regarding a complaints register.	R500	R1000
Failure to comply with prescriptions regarding information boards.	R500	R1000
Failure to comply with prescriptions regarding site demarcation and enforcement of 'no go' areas.	R500	R5000
Failure to comply with prescriptions regarding site clearing.	R500	R5000
Failure to comply with prescriptions for supervision for loading and off loading of delivery vehicles.	R500	R1000
Failure to comply with prescriptions for securing of loads to ensure safe passage of delivery vehicles.	R500	R1000
Failure to comply with prescriptions for the storage of imported materials within a designated contractors yard.	R500	R1000
Failure to comply with prescribed administration, storage or handling of hazardous substances.	R500	R1000
Failure to comply with prescriptions regarding equipment maintenance and storage.	R500	R1000
Failure to comply with fuel storage, refuelling, or cleanup prescriptions.	R500	R1000
Failure to comply with prescriptions regarding procedures for emergencies (spillages and fires).	R1000	R5000
Failure to comply with prescriptions regarding construction camp.	R500	R5000
Failure to comply with prescriptions for the use of ablution facilities.	R500	R1000
Failure to comply with prescriptions regarding water provision.	R500	R1000
Failure to comply with prescriptions for the use of designated eating areas, heating source for cooking or presence of fire extinguishers.	R500	R1000
Failure to comply with prescriptions regarding fire control.	R500	R5000
Failure to comply with prescriptions for solid waste management.	R500	R5000
Failure to comply with prescriptions regarding road surfacing.	R500	R5000
Failure to comply with prescriptions to prevent water pollution and sedimentation	R500	R5000
Failure to comply with prescriptions to the protection of natural features, flora, fauna and archaeology.	R500	R5000
Failure to comply with prescriptions regarding speed limits.	R500	R1000
Failure to comply with prescriptions regarding noise levels of construction activities.	R500	R5000
Failure to comply with prescriptions regarding working hours.	R500	R5000
Failure to comply with prescriptions regarding aesthetics.	R500	R1000
Failure to comply with prescriptions regarding dust control.	R500	R1000
Failure to comply with prescriptions regarding security and access onto private property	R500	R1000
Failure to comply with prescriptions regarding cement and concrete batching	R500	R5000

For each subsequent similar offence committed by the same individual, the fine shall be doubled in value to a maximum value of R50,000.

APPENDIX 1

PUBLIC PARTICIPATION INFORMATION

- I&AP DATABASE
- BID AND COVERING LETTER
- FEBRUARY 2008 ADVERTISEMENT
- SITE NOTICES
- I&AP NOTIFICATION LETTER
- NOVEMBER 2008 ADVERTISEMENT
- LETTERS TO LANDOWNERS
- COPIES OF WRITTEN COMMENTS

Mnr J Badenhorst (Jan)

Posbus 281 COLESBERG 9795

Me C Booyens (Christine)

Posbus 19505 BLOEMSPRUIT 9364
Home 051 432 2346 Email christine@wascon.co.za

Dr WA De Jongh (WA)

Posbus 64 COLESBERG 9795
Home 051 753 0701 Email casmed@shisas.com

Mr du Plessis (Callie)

PO Box 267 COLESBERG 9795
Work 051 753 0661 Fax 051 753 0513 Cell 083 451 2275 Email duplessis@peg.co.za

Mr J Gogotya (John)

25 Van de Graaf Street WELGEMOED 7530
Work 083 440 0569 Cell 083 708 3107

Mnr E Hugo (Ernest)

Posbus 148 COLESBERG 9795
Home 051 753 0279

Mnr HE Hugo (Bootjie)

Taaiboslaagte Posbus 221 COLESBERG 9795
Cell 082 873 1033 Home 051 753 1311

Mnr C Kritzinger (Carel)

Email chaca@telkomsa.net

Mr T Rous (Trevor & Judy)

P O Box 25 COLESBERG 9795
Cell 083 299 8850 Home 051 753 0301 Email jrrous@mweb.co.za
NOTE: Judy - 083 259 3308

Mnr T Southey (T)

Ventershoekstraat 3 COLESBERG 9795
Home 051 753 0242

Mnr N Van der Merwe (Nicolas)

Rietfontein Posbus 100 COLESBERG 9795
Fax 051 753 1578 Cell 082 324 3733 Home 051 753 1447 Email merweboerdery@bokaroo.co.za

Mr JR Van Zijl (Roben)

PO Box 272 COLESBERG 9795
Fax 086 627 4259 Cell 083 364 1141 Home 051 753 0402 Email roben@tzamenkomst.co.za
NOTE: 9 Ventershoek Street

Mnr Wium (Manie)

Posbus 21 COLESBERG 9795
Fax 051 753 1448 Cell 073 620 2448 Home 051 753 1448

Action Group Colesberg

Mr J Matthee (Johan)

Chairman Action Group Colesberg
Fax 051 753 9290 Cell 082 406 8248 Home 051 753 9281 Email jmatthee@oldmutualpfa.com
NOTE: Or Fax 086 513 8232

ADT Town Planners

Mnr A du Toit (Andre)

ADT Town Planners
Work 014 576 2293 Fax 086 671 6588 Cell 083 659 4037 Email adt@mweb.co.za

ANC

Mr L Banjwa (Lulamile)

ANC
21 Selai Crescent COLESBERG 9795

Mr L Baugane (Lupaniele)

ANC
21 Solai Crescent COLESBERG 9795
Cell 082 538 6894

ANC Tozi Mcoyana

Mnr C Marais (Charlie)
ANC Tozi Mcoyana
27 Merle Street COLESBERG 9795
Cell 083 988 8941

ANCYL

ET Mokoena (ET)
ANCYL
200A Old Location COLESBERG 9795
Cell 078 871 5489

AK Solomon (AK)
ANCYL
204B Old Location COLESBERG 9795
Cell 071 212 2765

BGC Administration cc

Mnr G Hendriks (Gerrie)
BGC Administration cc
P O Box 298 BEAUFORT WEST 6970
Work 023 415 2066 Fax 023 415 2066 Email kfchq@isat.co.za

Colesberg Accommodation Association

Mr C Gronum (Carl)
Colesberg Accommodation Association
P O Box 291 COLESBERG 9795
Work 051 753 1160 Cell 083 234 4549 Email cgronum@mweb.co.za

Colesberg Belastingbetalers

Mnr S Fourie (Stefan)
Colesberg Belastingbetalers
Work 051 753 1562

Colesberg Boere-Unie

Mnr JFL Kruger (JFL)
Colesberg Boere-Unie
Posbus 132 COLESBERG 9795
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Colesberg Inwonersvereniging

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29 February 2008

Dear Sir / Madam

PROPOSED REHABILITATION AND UPGRADING OF THE N9 BETWEEN WOLWEFONTEIN (KM63.63) AND COLESBERG (KM94.84), INCLUDING A NEW N1/N9 ACCESS INTERCHANGE

The South African National Roads Agency Limited (SANRAL) proposes to rehabilitate and upgrade Section 7 of National Route 9 (N9) (about 32km) between Wolwefontein and Colesberg. The project would also include the construction of a new grade separated N1/N9 Interchange at Colesberg.

SANRAL has appointed CCA Environmental (Pty) Ltd as an independent environmental consultant to ensure compliance with the Environmental Impact Assessment (EIA) Regulations, 2006, promulgated under the National Environmental Management Act (Act 107 of 1998) (NEMA) as well as the requirements of the Minerals and Petroleum Resources Development Act (Act 28 of 2002). UWP Consulting (Pty) Ltd and Bergstan (Pty) Ltd are the appointed civil engineering consultants.

The purpose of the enclosed Background Information Document (BID) is to convey information about the proposed project and give you as an Interested and Affected Party (I&AP) the opportunity to participate in the process and raise any concerns that you may have regarding the proposed project and the EIA process. You are also cordially invited to attend an Open Day and Information-sharing Meeting where the project and the EIA process will be discussed. The Open Day and Meeting will take place as follows:

Date:	19 March 2008	
Venue:	Colesberg Town Hall	
Time:	Open Day: 17h00	Formal Presentation: 18h00

If you have any queries in this regard, please feel free to contact the undersigned or the project consultant, Eloise Costandius, at the contact details below.

Yours sincerely



Jonathan Crowther Pr.Sci.Nat
CCA ENVIRONMENTAL (PTY) LTD

Encl.

UWP01COL/BID/cov_let/29Feb08



PROPOSED REHABILITATION OF THE N9 FROM WOLWEFONTEIN (KM 63.63) TO COLESBERG (KM 94.84) INCLUDING A NEW N1/N9 ACCESS INTERCHANGE



Background Information Document
February 2008



1. INTRODUCTION

The proposed project involves the rehabilitation of National Route 9 (N9) Section 7 between Wolwefontein (km 63.63) and Colesberg (94.84). The purpose of this Background Information Document (BID) is to convey information regarding the proposed project and to give Interested and Affected Parties (I&APs) the opportunity to comment on the project.

This document sets out the following:

- A brief description of the proposed project;
- Applicability of the NEMA EIA Regulations; and
- An invitation for I&APs to comment.

UWP Consulting (Pty) Ltd and Bergstan (Pty) Ltd have been appointed as engineering consultants and CCA Environmental (Pty) Ltd has been appointed to ensure compliance with the National Environmental Management Act (No. 107 of 1998) (NEMA) Environmental Impact Assessment (EIA) Regulations, 2006.

2. PROJECT DESCRIPTION

The South African National Roads Agency Limited (SANRAL) proposes to upgrade section 7 of the N9 between Wolwefontein and Colesberg (about 32 km) (see Figure 1). The project would include the following:

- Km63.63 to Km81.20 – addition of 2.5m shoulders, rehabilitation of the existing surfaced lanes and changes to various structures;
- Km81.20 to Km94.84 – rehabilitation of the existing road surface and repairs to structures and minor ancillary works; and
- N1/N9 Intersection – construction of a new grade separated interchange (Figure 2).

The new grade separated interchange forms part of Phase 2 of the proposed phased rehabilitation of the N1 in this region, as presented to the public by SANRAL in 2001. The main purpose of the new interchange would be to improve road user safety.

The project would also include an investigation into the possible addition and placement of cattle creeps along this section of the N9.

Material would be sourced from borrow pits along the N9. Three existing borrow pits have been identified for possible extension. These are located on the farms Taaiboslaagte (km84.0), Rietfontein (km74.3) and Arundel (km69.6).

Road construction would be undertaken in half-widths and a stop/go system used to regulate traffic. A maximum of 4 km would be closed during construction with a 4 km distance between closed sections.

3. LEGISLATIVE FRAMEWORK

The National Environmental Management Act (No. 107 of 1998) (NEMA) provides for the control of certain activities as listed in Government Notice R386, that 'may have a detrimental effect on the environment'. In terms of Government Notice R385 such activities are prohibited until written authorisation is obtained from the Minister or his delegated authority.

In terms of Government Notice R386, the following listed activity is considered to be applicable to the proposed project:

15. The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.

In order to comply with the requirements of the NEMA Environmental Impact Assessment (EIA) Regulations, 2006, a Basic Assessment Report (BAR) must be submitted to the Department of Environmental Affairs and Tourism (DEAT) for approval.

The proposed extension of borrow pits would require authorisation from the Department of Minerals and Energy (DME) in terms of the Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA). The MPRDA provides for the control of mining activities including the development of borrow pits. The MPRDA requires the submission of an Environmental Management Programme report (EMPr) to DME before any mining activities, including the development of a borrow pit, may be authorised.

4. INVITATION TO COMMENT ON THE PROPOSED PROJECT

If you or your organisation would like to comment on the proposed project and/or if you know of any other organisations or persons interested in, or affected by the proposed project, please contact Eloise Costandius of CCA Environmental at the contact details overleaf. For comments to be included in the Draft Basic Assessment Report they should be forwarded to CCA Environmental no later than **28 March 2007**.

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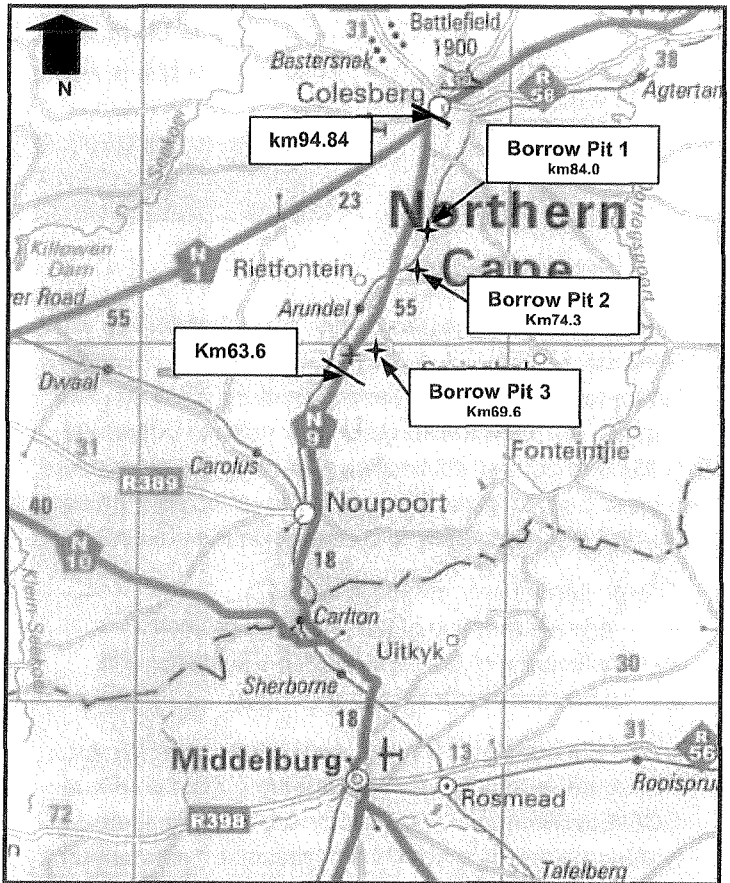


Figure 1 Road Map showing the road section to be rehabilitated and the location of the proposed borrow pits.

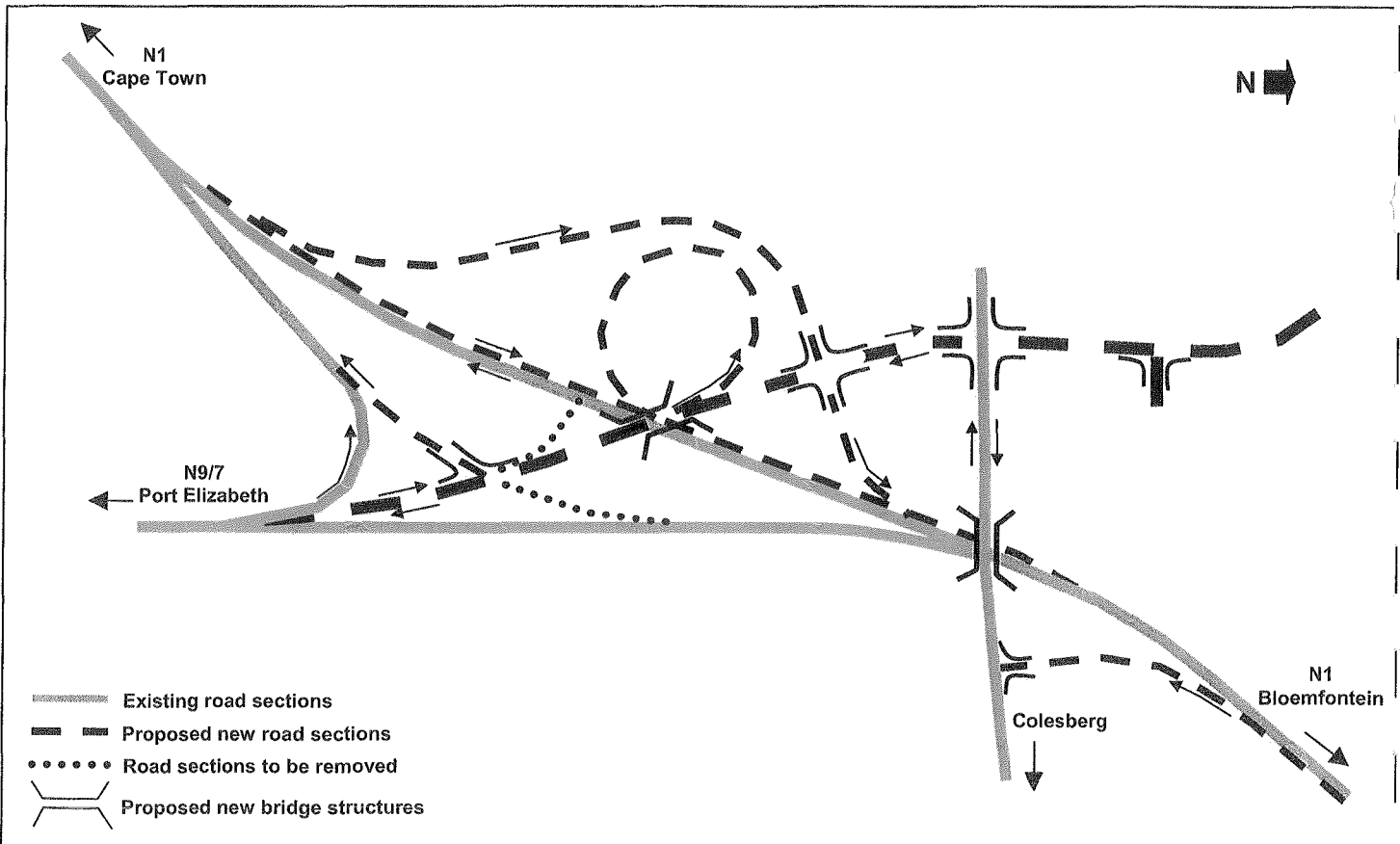


Figure 2 Layout Plan for the proposed new grade separated N1/N9 interchange at Colesberg.

VOORGESTELDE REHABILITASIE VAN DIE N9 TUSSEN WOLWEFONTEIN (KM 63.63) EN COLESBERG (KM 94.84), INSLUITENDE 'N NUWE N1/N9 KRUISSING



Agtergrond Inligtingsdokument
Februarie 2008



1. INLEIDING

Die voorgestelde projek behels die rehabilitasie van Nasionale Pad 9 (N9) Gedeelte 7 tussen Wolwefontein (km63.63) en Colesberg (km94.84). Die doel van hierdie Agtergrond Inligtingsdokument (AID) is om inligting aangaande die voorgestelde projek oor te dra en om aan Belanghebbende Persone die geleentheid te bied om op die projek kommentaar te lewer.

Hierdie dokument sit die volgende uiteen:

- 'n Kort beskrywing van die voorgestelde projek;
- Toepaslikheid van die NEMA OIB Regulasies; en
- 'n Uitnodiging vir Belanghebbende Persone om kommentaar te lewer.

UWP Consulting (Edms) Bpk en Bergstan (Edms) Bpk is aangestel as ingenieurskonsultante en CCA Environmental (Edms) Bpk is aangestel om te verseker dat die Omgewingsimpakbepaling (OIB) Regulasies, 2006, in terme van die Nasionale Wet op Omgewingsbestuur (No. 107 van 1998) (NEMA), nagekom word.

2. PROJEK BESKRYWING

Die Suid-Afrikaanse Nasionale Padagentskap Beperk (SANRAL) stel voor om Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg te rehabiliteer en op te grader (omtrent 32 km) (sien Figuur 1). Die projek sal die volgende insluit:

- Km63.63 tot Km81.20 – byvoeg van 2.5m skouers, rehabilitasie van die bestaande padoppervlak en veranderinge aan verskeie strukture;
- Km81.20 tot Km94.84 – rehabilitasie van die bestaande padoppervlak, herstel werk aan structure en bykomstige padwerke; en
- N1/N9 Kruising – konstruksie van 'n nuwe meervlakkruising by Colesberg. (Figuur 2).

Die nuwe meervlakkruising maak deel uit van Fase 2 van die voorgestelde rehabilitasie van die N1 in hierdie area, soos in 2001 deur SANRAL aan die publiek voorgestel. Die hoofdoel van hierdie nuwe kruising is die verbetering van veiligheid vir padgebruikers.

Die projek sal ook 'n ondersoek na die moontlike byvoeg en plasing van veeduiers langs hierdie gedeelte van die N9 insluit.

Materiaal sal verkry word vanaf leengroewe langs die N9. Drie bestaande leengroewe is gekies vir moontlike uitbreiding. Hierdie leengroewe is op die plase Taaiboslaagte (km84.0), Rietfontein (km74.3) en Arundel (km69.6) geleë.

Padkonstruksie sal in halfwydtes onderneem word en 'n stop/ry sisteem sal gebruik word om verkeer te reguleer. 'n Maksimum afstand van 4 km sal gesluit word gedurende konstruksie met 'n 4 km afstand tussen geslote gedeeltes.

3. WETGEWINGSRAAMWERK

NEMA voorsien vir die beheer van sekere aktiwiteite, soos gelys in Goewermentskennisgewing R386, wat nie sonder omgewingsmagtiging vanaf die relevante gesag mag plaasvind nie. In terme van Goewermentskennisgewing R385 word hierdie aktiwiteite nie toegelaat voordat geskrewe goedkeuring vanaf die Minister of sy afgevaardigde gesag verkry is nie.

In terme van Goewermentskennisgewing R386, 2006, mag die volgende gelyste aktiwiteit op die voorgestelde projek van toepassing wees:

“15. Die konstruksie van 'n pad wyer as 4 meter of met 'n reserwe wyer as 6 meter, uitsluitende paaie wat binne die konteks van 'n ander gelyste aktiwiteit val of toegangspaaie van korter as 30 meter.”

Om die vereistes van die NEMA Omgewingsimpakbepaling (OIB) Regulasies, 2006, na te kom moet 'n Basiese Evalueeringsverslag (BEV) by die Departement van Omgewingsake en Toerisme (DEAT) ingedien word vir goedkeuring.

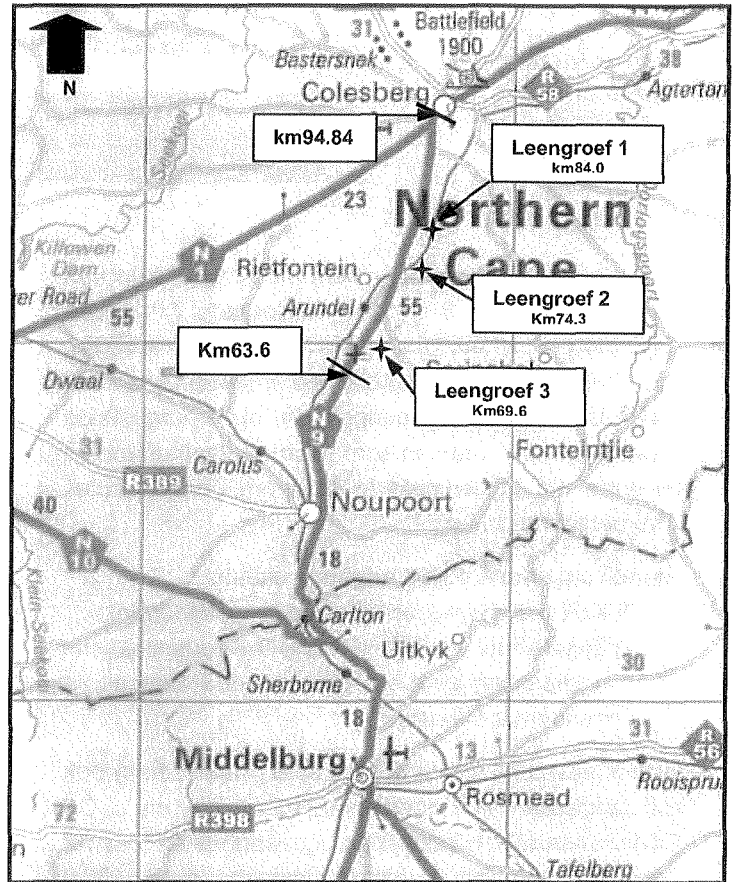
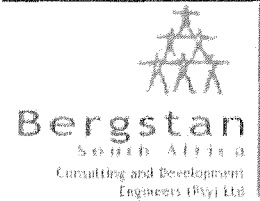
Die voorgestelde uitbreiding van leengroewe sal goedkeuring vanaf die Departement van Minerale en Energie (DME) in terme van die Wet of Minerale en Petroleum Hulpbronontwikkeling (No.28 van 2002) (MPRDA) benodig. Die MPRDA voorsien vir die beheer van mynaktiwiteite insluitende die ontwikkeling van leengroewe. Die MPRDA vereis die indien van 'n Omgewingsbeheerprogram (OBPr) by DME voordat

enige mynaktiwiteite, insluitende die ontwikkeling van 'n leengroef, goedgekeur mag word.

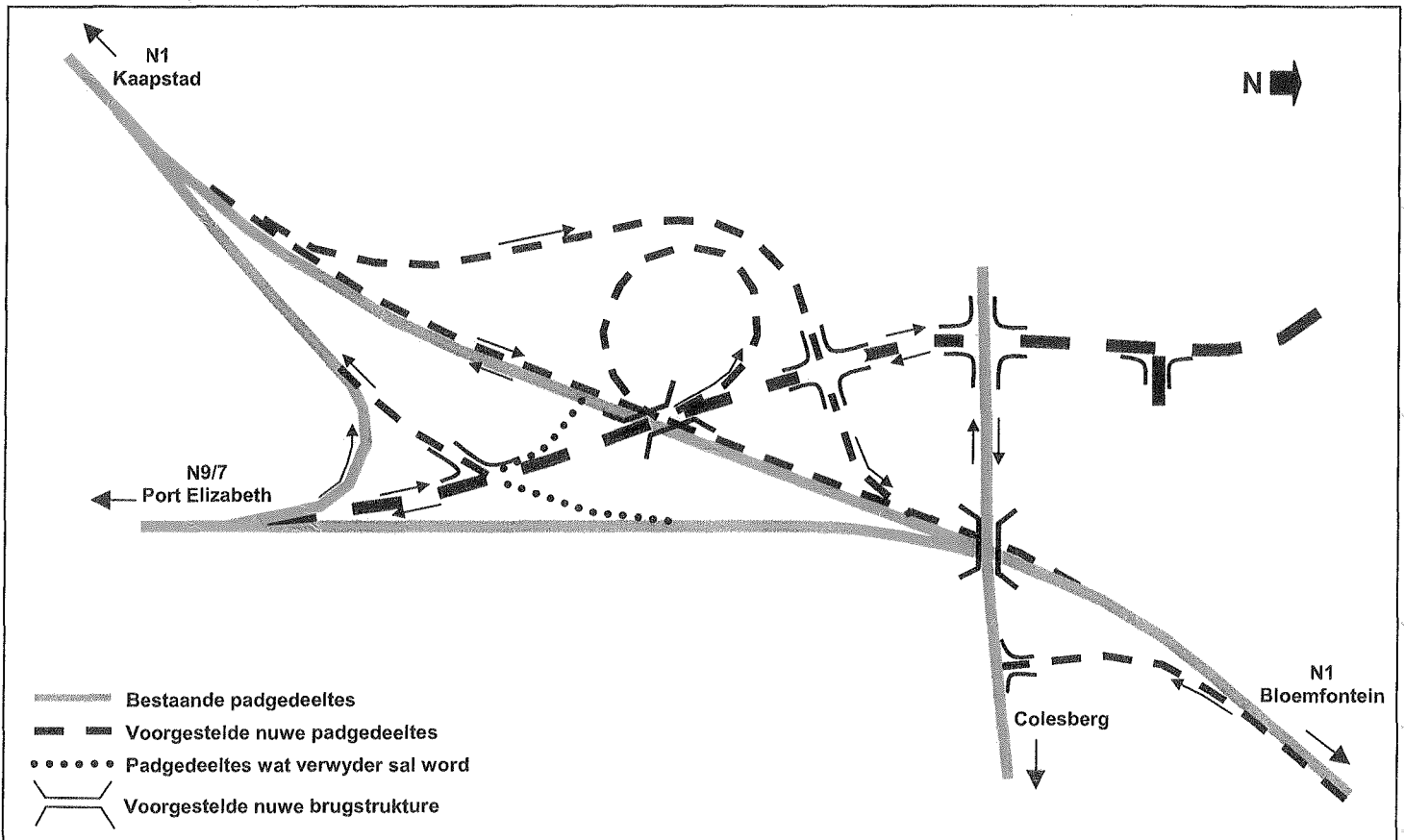
4. UITNODIGING OM OP DIE VOORGESTELDE PROJEK KOMMENTAAR TE LEWER

Indien u of u organisasie op die voorgestelde projek kommentaar wil lewer en/of u weet van enige ander organisasie of persone wat deur die voorgestelde projek geraak mag word, kontak asseblief vir Eloise Costandius van CCA Environmental by die besonderhede hieronder. Vir kommentaar om by die Konsep Basiese Ewalueringsverslag ingesluit te word moet dit CCA Environmental nie later as 28 Maart 2008 bereik nie.

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Figuur 1 Padkaart met die padgedeelte voorgestel vir rehabilitasie en die lokaliteite van die leengroewe aangedui.



Figuur 2 Uitlegplan vir die voorgestelde nuwe N1/N9 meervlakkruising by Colesberg.

Advertisement placed in Die Volksblad of 29 February 2008

VOORGESTELDE REHABILITASIE VAN DIE N9 TUSSEN WOLWEFONTEIN (KM 63.63) EN COLESBERG (KM 94.84), INSLOTUENDE 'N NUWE N1/N9 WISSELAAR

KENNIS VAN PUBLIEKE DEELNAME PROSES

Kennis geskied hiermee in terme van die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA), Omgewingsmoekbepaling (OEB) Regulasies R385, 2006, en die Wet op Minerale en Petroleum (Opleerontwikkeling) (Wet 28 van 2002) (MPRDA), wat die vername om die volgende polistie aktiwiteit te onderneem:

Aktiwiteit: Die opgradering van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg. Die opgradering sal die volgende behels: die rehabilitasie van die bestaande padoppervlak, herstelwerk aan strukture en bykomende padwerke (km63.63 tot km94.84) en die byvoeg van 2,5m geasende skouers van km63.63 tot km81.20. Die projek sal ook die konstruksie van 'n nuwe meervakruising insluit om veiligheid by die N1/N9 oorsluiting in Colesberg te verbeter. Die nuwe kruising sal die ontlasting van grond verlig. Die bestaande leengroewe langs hierdie gedeelte van die N9 sal uitgebrei word om materiaal te bekom vir die voorgestelde padopgradering en rehabilitasie projek.

Voorsteller: Die Suid-Afrikaanse Nasionale Padagentskap (SANRAL)
Omgewingskonsultant: CCA Environmental (Edms) Bpk (CCA)
Ingenieurskonsultant: UWP Consulting (Edms) Bpk

In terme van Oeweromskeamingswet No. R296 moet 'n Basiese Evalueeringsverslag by die Departement van Omgewingsake en Toerisme ingedien word om aan die vereistes van die OEB Regulasies te voldoen. Vir goetseuring van die voorgestelde leengroewe moet 'n Omgewingsbestuurprogram in terme van die MPRDA by die Departement van Minerale en Energie ingedien word.



'n Agtergrond Inligtingsdokument (AID) met meer inligting in verband met die voorgestelde projek is op aanvraag van CCA (sodra hieronder) beskikbaar. Belanghebbende persone word gevra om kommentaar te lewer op die voorgestelde projek en/of as belanghebbende in te registreer. Kommentaar moet die kantore van CCA nie later as **28 Maart 2008** bereik nie.

Belanghebbende persone word ook vriendelik uitgenooi om 'n publieke oopdag en vergadering by te woon waar die voorgestelde projek sowel as die omgewingsmoek bepalingproses bespreek sal word. Die oopdag sal gewik word deur 'n kort formele aanbieding. Die oopdag en vergadering sal as volg plaasvind.

Datum:	18 Maart 2008	
Plaak:	Colesberg Stadsaal	
Tyd:	Opdag: 17:00	Formele aanbieding: 18:00

Vir meer inligting, skakel asseblief vir Floise Costantius van CCA by die onderstaande kontakbesonderhede.



CCA Environmental Kontakbesonderhede:
 Eenheid 35 Rivierdriplein, Drury Lane, KAAPSTAD 8001
 Posbus 10145, Caledonplein, KAAPSTAD, 7805
 Tel: (021) 461 1118 Fax: (021) 461 1120
 e-pos: floise@ccaenvironmental.co.za
 http://www.ccaenvironmental.co.za

Datum van Advertensie: 29 Februarie 2008

Advertisement placed in The Graaff-Reinet Advertiser of 29 February 2008

PROPOSED REHABILITATION OF THE N9 FROM WOLWEFONTEIN (KM 63.63) TO COLESBERG (KM 94.84) INCLUDING A NEW N1/N9 ACCESS INTERCHANGE

NOTICE OF PUBLIC PARTICIPATION PROCESS

Notice is hereby given in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA) Environmental Impact Assessment (EIA) Regulations R385, 2006, and the Minerals and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), of the proposal to undertake the following listed activity:

Activity: The upgrading of Section 7 of the N9 between Wolwefontein and Colesberg. The upgrade would involve the rehabilitation of the existing road surface, repairs to structures and minor ancillary works (km63.63 to km94.84) as well as the addition of 2.5m surfaced shoulders from km63.63 to km81.20. The project would also entail the construction of a new grade separated interchange to improve safety at the N1/N9 intersection in Colesberg. The new interchange would require the appropriation of land. Three existing borrow pits along this section of the N9 would be extended to source material for the proposed road upgrade and rehabilitation project.

Proponent: The South African National Roads Agency Limited (SANRAL)
Environmental consultant: CCA Environmental (Pty) Ltd (CCA)
Engineering consultant: UWP Consulting (Pty) Ltd

In terms of Government Notice No. R386 a Basic Assessment Report must be submitted to the Department of Environmental Affairs and Tourism in order to comply with the requirements of the EIA Regulations. For authorisation of the proposed borrow pits an Environmental Management Programme report in terms of the MPRDA must be submitted to the Department of Minerals and Energy.

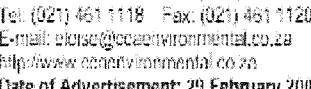

A Background Information Document (BID) with further information on the proposed project is available from CCA (address below) on request, in both English and Afrikaans. Interested and Affected Parties (I&APs) are requested to comment on the proposed project and/or to register as I&APs. Comments should reach the offices of CCA no later than **28 March 2008**.

I&APs are also cordially invited to attend a public open day and meeting where the proposed project and environmental impact assessment process will be discussed. The open day will be followed by a short formal presentation. The open day and meeting will take place as follows:

Date:	18 March 2008	
Venue:	Colesberg Town Hall	
Tyd:	Open Day: 17:00	Formal Meeting: 18:00

For further information, please contact Floise Costantius of CCA at the contact details below.

CCA Environmental Contact Details:
 Unit 35 Rivierdriplein, Drury Lane, CAPE TOWN, 8001
 PO Box 10145, Caledon Square, CAPE TOWN, 7805
 Tel: (021) 461 1118 Fax: (021) 461 1120
 E-mail: floise@ccaenvironmental.co.za
 http://www.ccaenvironmental.co.za

Date of Advertisement: 29 February 2008

SITE NOTICES



BORROW PIT 1 ON REMAINDER OF ERF 675

KENNISGEWING: VOORGESTELDE LEENGROEFONTWIKKELING

KENNIS GESKIED HIERMEE IN TERME VAN DIE WET OP MINERALE EN PETROLEUM HULPBRONONTWIKKELING (NO. 28 VAN 2002) VAN DIE SUID-AFRIKAANSE NASIONALE PADAGENTSCHAP BEPERK (SANRAL) SE VOORSTEL OM 'N LEENGROEF OP RESTANT VAN ERF 675, COLESBERG TE ONTWIKKEL.

OM KOMMENTAAR TE LEWER OF MEER INLIGTING TE BEKOM, KONTAK ASSEBLIEF VIR ELOISE COSTANDIUS VOOR 12 DESEMBER 2008 BY DIE BESONDERHEDE HIERONDER.

CCA ENVIRONMENTAL

POSBUS 10145, CALEDONPLEIN, 7905

(T) (021) 461 1118/9 (F) (021) 461 1120

eloise@ccaenvironmental.co.za





BORROW PIT 2 ON REMAINDER OF ERF 675

KENNISGEWING: VOORGESTELDE LEENGROEFONTWIKKELING

KENNIS GESKIED HIERMEE IN TERME VAN DIE WET OP MINERALE EN PETROLEUM HULPBRONONWIKKELING (NO. 28 VAN 2002) VAN DIE SUID-AFRIKAANSE NASIONALE PADAGENTSAP BEPERK (SANRAL) SE VOORSTEL OM 'N LEENGROEF OP RESTANT VAN ERF 675, COLESBERG TE ONTWIKKEL.

OM KOMMENTAAR TE LEWER OF MEER INLIGTING TE BEKOM, KONTAK ASSEBLIEF VIR ELOISE COSTANDIUS VOOR 12 DESEMBER 2008 BY DIE BESONDERHEDE HIERONDER.

CCA ENVIRONMENTAL

POSBUS 10145, CALEDONPLEIN, 7905

(T) (021) 461 1118/9 (F) (021) 461 1120

eloise@ccaenvironmental.co.za



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Bergstan
SOUTH AFRICA
Consulting and Design Services
Engineering Pty Ltd



BORROW PIT 3 ON REMAINDER OF ERF 675

**KENNISGEWING:
VOORGESTELDE LEENGROEFONTWIKKELING**

KENNIS GESKIED HIERMEE IN TERME VAN DIE WET OP MINERALE EN PETROLEUM HULPBRONONWIKKELING (NO. 28 VAN 2002) VAN DIE SUID-AFRIKAANSE NASIONALE PADAGENTSAP BEPERK (SANRAL) SE VOORSTEL OM 'N LEENGROEF OP RESTANT VAN ERF 675, COLESBERG TE ONTWIKKEL.

OM KOMMENTAAR TE LEWER OF MEER INLIGTING TE BEKOM, KONTAK ASSEBLIEF VIR ELOISE COSTANDIUS VOOR 12 DESEMBER 2008 BY DIE BESONDERHEDE HIERONDER.

CCA ENVIRONMENTAL

POSBUS 10145, CALEDONPLEIN, 7905
(T) (021) 461 1118/9 (F) (021) 461 1120
eloise@ccaenvironmental.co.za



29 Februarie 2008

Geagte Heer/Dame

VOORGESTELDE REHABILITASIE EN OPGRADERING VAN DIE N9 TUSSEN WOLWEFONTEIN (KM63.63) EN COLESBERG (KM94.84), INSLUITENDE 'N NUWE N1/N9 KRUISING

Die Suid-Afrikaanse Nasionale Padagentskap Beperk (SANRAL) stel voor om Gedeelte 7 van Nasionale Pad 9 (N9) (ongeveer 32km) tussen Wolwefontein en Colesberg te rehabiliteer en op te gradeer. Die projek sal ook die konstruksie van 'n nuwe meervlak N1/N9-kruising by Colesberg insluit.

SANRAL het CCA Environmental (Edms) Bpk as onafhanklike omgewingskonsultant aangestel om te verseker dat daar aan die Omgewingsimpakbepaling (OIB) Regulasies, 2006, in terme van die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA), sowel as aan die vereistes van die Wet op die Ontwikkeling van Minerale en Petroleumhulpbronne (Wet 28 van 2002) (MPRDA), voldoen word. UWP Consulting (Edms) Bpk en Bergstan (Edms) Bpk is aangestel as die siviele ingenieurskonsultante.

Die doel van die bygaande Agtergrond Inligtingsdokument (AID) is om inligting aangaande die voorgestelde projek oor te dra en om aan u as Belanghebbende Persoon die geleentheid te bied om deel te neem aan die proses. Ons nooi u uit om enige kwellinge wat u mag hê aangaande die voorgestelde projek of die nakoming van die omgewingsregulasies met ons te deel. U word ook vriendelik uitgenooi om 'n Opedag en Openbare Inligtingsvergadering by te woon waar die projek en OIB proses bespreek sal word. Die Opedag en vergadering sal as volg plaasvind:

Datum:	19 Maart 2008	
Plek:	Colesberg Stadsaal	
Tyd:	Opedag: 17h00	Formele Aanbieding: 18h00

Indien u enige vrae het, voel vry om met die ondergetekende of die projekkonsultant, Eloise Costandius, by die kontakbesonderhede hieronder verskaf, in verbinding te tree..

Vriendelike Groete



Jonathan Crowther Pr.Sci.Nat
CCA ENVIRONMENTAL (EDMS) BPK

Ingesl.

UWP01COL/BID/cov_let/29Feb08



CCA ENVIRONMENTAL (Pty) Ltd • Consulting Services

Unit 35 Roeland Square 30 Drury Lane Cape Town 8001 • PO Box 10145 Caledon Square 7905

Tel +27 (21) 461 1118/9 • Fax +27 (21) 461 1120 • email: info@ccaenvironmental.co.za • website: www.ccaenvironmental.co.za

Directors: J Crowther F Fredericks • Reg No 2003/019026/07



BORROW PIT 4 ON THE ERF 1271, Colesberg

KENNISGEWING: VOORGESTELDE LEENGROEFONTWIKKELING

KENNIS GESKIED HIERMEE IN TERME VAN DIE WET OP MINERALE EN PETROLEUM HULPBRONONWIKKELING (NO. 28 VAN 2002) VAN DIE SUID-AFRIKAANSE NASIONALE PADAGENTSAP BEPERK (SANRAL) SE VOORSTEL OM 'N LEENGROEF OP DIE PLAAS TAAIBOSLAAGTE TE ONTWIKKEL.

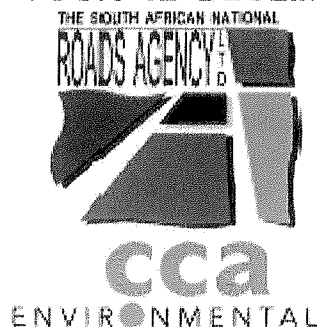
OM KOMMENTAAR TE LEWER OF MEER INLIGTING TE BEKOM, KONTAK ASSEBLIEF VIR ELOISE COSTANDIUS VOOR 12 DESEMBER 2008 BY DIE BESONDERHEDE HIERONDER.

CCA ENVIRONMENTAL

POSBUS 10145, CALEDONPLEIN, 7905

(T) (021) 461 1118/9 (F) (021) 461 1120

eloise@ccaenvironmental.co.za





BORROW PIT 5 ON THE FARM TAAIBOSLAAGTE (HUGOSLAAGTE)

KENNISGEWING: VOORGESTELDE LEENGROEFONTWIKKELING

KENNIS GESKIED HIERMEE IN TERME VAN DIE WET OP MINERALE EN PETROLEUM HULPBRONONWIKKELING (NO. 28 VAN 2002) VAN DIE SUID-AFRIKAANSE NASIONALE PADAGENTSCHAP BEPERK (SANRAL) SE VOORSTEL OM 'N LEENGROEF OP DIE PLAAS TAAIBOSLAAGTE TE ONTWIKKEL.

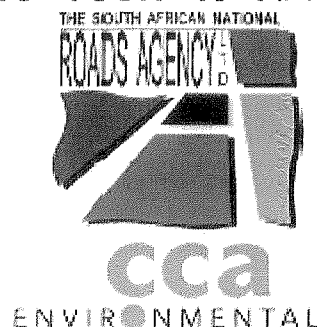
OM KOMMENTAAR TE LEWER OF MEER INLIGTING TE BEKOM, KONTAK ASSEBLIEF VIR ELOISE COSTANDIUS VOOR 18 APRIL 2008 BY DIE BESONDERHEDE HIERONDER.

CCA ENVIRONMENTAL

POSBUS 10145, CALEDONPLEIN, 7905

(T) (021) 461 1118/9 (F) (021) 461 1120

eloise@ccaenvironmental.co.za





BORROW PIT 6 ON THE FARM RIETFONTEIN

KENNISGEWING: VOORGESTELDE LEENGROEFONTWIKKELING

KENNIS GESKIED HIERMEE IN TERME VAN DIE WET OP MINERALE EN PETROLEUM HULPBRONONWIKKELING (NO. 28 VAN 2002) VAN DIE SUID-AFRIKAANSE NASIONALE PADAGENTSAP BEPERK (SANRAL) SE VOORSTEL OM 'N LEENGROEF OP DIE PLAAS RIETFONTEIN TE ONTWIKKEL.

OM KOMMENTAAR TE LEWER OF MEER INLIGTING TE BEKOM, KONTAK ASSEBLIEF VIR ELOISE COSTANDIUS VOOR 18 APRIL 2008 BY DIE BESONDERHEDE HIERONDER.

CCA ENVIRONMENTAL

POSBUS 10145, CALEDONPLEIN, 7905

(T) (021) 461 1118/9 (F) (021) 461 1120

eloise@ccaenvironmental.co.za



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Environmental & Heritage
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BORROW PITS 7 AND 8 ON THE FARM ARUNDEL

KENNISGEWING: VOORGESTELDE LEENGROEFONTWIKKELING

KENNIS GESKIED HIERMEE IN TERME VAN DIE WET OP MINERALE EN PETROLEUM HULPBRONONWIKKELING (NO. 28 VAN 2002) VAN DIE SUID-AFRIKAANSE NASIONALE PADAGENTSAP BEPERK (SANRAL) SE VOORSTEL OM 'N LEENGROEF OP DIE PLAAS ARUNDEL TE ONTWIKKEL.

OM KOMMENTAAR TE LEWER OF MEER INLIGTING TE BEKOM, KONTAK ASSEBLIEF VIR ELOISE COSTANDIUS VOOR 18 APRIL 2008 BY DIE BESONDERHEDE HIERONDER.

CCA ENVIRONMENTAL

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ENVIRONMENTAL



Bergstan
SOUTH AFRICA
Consulting and Design Services
Engineers (Pty) Ltd

03 November 2008

Dear Sir / Madam

PROPOSED REHABILITATION AND UPGRADING OF THE N9 BETWEEN WOLWEFONTEIN (KM63.63) AND COLESBERG (KM94.84), INCLUDING A NEW N1/N9 ACCESS INTERCHANGE: INVITATION TO AN INFORMATION-SHARING MEETING

Our correspondence of 29 February 2008 regarding the above-mentioned proposed project and the public open day and information-sharing meeting held at the Colesberg Town Hall on 19 March 2008 have reference. This letter provides information on a second public information meeting to be held for the proposed road project.

As you may be aware, the South African National Roads Agency Limited (SANRAL) is proposing to rehabilitate and upgrade Section 7 of National Route 9 (N9) (about 32km) between Wolwefontein and Colesberg. The project would also include the construction of a new grade separated N1/N9 Interchange at Colesberg.

Since the information-sharing meeting in March, the proposed layout for the N1/N9 Interchange at Colesberg has been changed. The engineering consultants believe that the proposed new layout would address safety concerns at both the N1/N9 intersection and the 'Engen intersection' at the entrance to Colesberg.

You are hereby invited to attend a second public information-sharing meeting to discuss the proposed new layout for the N1/N9 Interchange at Colesberg. The purpose of the meeting would be to present the revised layout and to give the public an opportunity to comment on the latest revision. Interested and Affected Parties who wish to comment on the proposed new layout should do so no later than **01 December 2008** using the contact details provided below. A copy of the proposed new layout is enclosed. The meeting will take place as follows:

Date and Time: 17 November 2008 at 18h00

Venue: Colesberg Town Hall

If you have any queries in this regard, please feel free to contact the undersigned or the project consultant, Eloise Costandius (eloise@ccaenvironmental.co.za), at the contact details below.

Yours sincerely



Jonathan Crowther Pr.Sci.Nat
CCA ENVIRONMENTAL (PTY) LTD

Encl.

UWP01COL/Corr/I&AP let_meeting 03Nov08



CCA ENVIRONMENTAL (Pty) Ltd • Consulting Services

Unit 35 Roeland Square 30 Drury Lane Cape Town 8001 • PO Box 10145 Caledon Square 7905

Tel +27 (21) 461 1118/9 • Fax +27 (21) 461 1120 • email: info@ccaenvironmental.co.za • website: www.ccaenvironmental.co.za

Directors: J Crowther F Fredericks • Reg No 2003/019026/07

03 November 2008

Geagte Heer/Dame

VOORGESTELDE REHABILITASIE EN OPGRADERING VAN DIE N9 TUSSEN WOLWEFONTEIN (KM63.63) EN COLESBERG (KM94.84), INSLUITENDE 'N NUWE N1/N9 INTERSEKSIE: UITNODIGING NA 'N PUBLIEKE VERGADERING

Ons vorige korrespondensie van 29 Februarie 2008 aangaande die bogenoemde voorgestelde projek en die opedag en publieke vergadering wat op 19 Maart 2008 in die Colesberg Stadsaal gehou is, het verwysing. Hierdie brief verskaf inligting aangaande 'n tweede publieke vergadering wat vir die voorgestelde projek gehou sal word.

Soos u bewus mag wees stel die Suid-Afrikaanse Nasionale Padagentskap Beperk (SANRAL) voor om Gedeelte 7 van Nasionale Pad 9 (N9) (ongeveer 32km) tussen Wolwefontein en Colesberg te rehabiliteer en op te gradeer. Die projek sal ook die konstruksie van 'n nuwe meervlak N1/N9-kruising by Colesberg insluit.

Sedert die publieke vergadering in Maart is die voorgestelde uitleg vir die N1/N9 interseksie aangepas. Die ingenieurskonsultante is van mening dat die aangepaste uitleg veiligheidsprobleme by die N1/N9 aansluiting en die "Engen interseksie" by die ingang na Colesberg sal aanspreek.

U word hiermee uitgenooi om 'n tweede publieke vergadering by te woon waar die aangepaste uitleg vir die N1/N9 interseksie by Colesberg bespreek sal word. Die doel van die vergadering is om die aangepaste uitleg te bespreek en om aan die publiek 'n geleentheid te bied om kommentaar te lewer op die nuutste aanpassings. Belanghebbende Persone wat kommentaar wil lewer op die aangepaste uitleg moet dit teen **01 Desember 2008** indien by die kontakbesonderhede soos hieronder verskaf. 'n Kopie van die aangepaste uitleg is by hierdie brief ingesluit. Die vergadering sal as volg plaasvind:

Date and Time: 17 November 2008 at 18h00

Venue: Colesberg Town Hall

Indien u enige vrae het, voel vry om met die ondergetekende of die projekkonsultant, Eloise Costandius (eloise@ccaenvironmental.co.za), te skakel.

Vriendelike Groete



Jonathan Crowther Pr.Sci.Nat
CCA ENVIRONMENTAL (EDMS) BPK

Ingesl.

UWP01COL/Corr/I&AP let_meeting 03Nov08



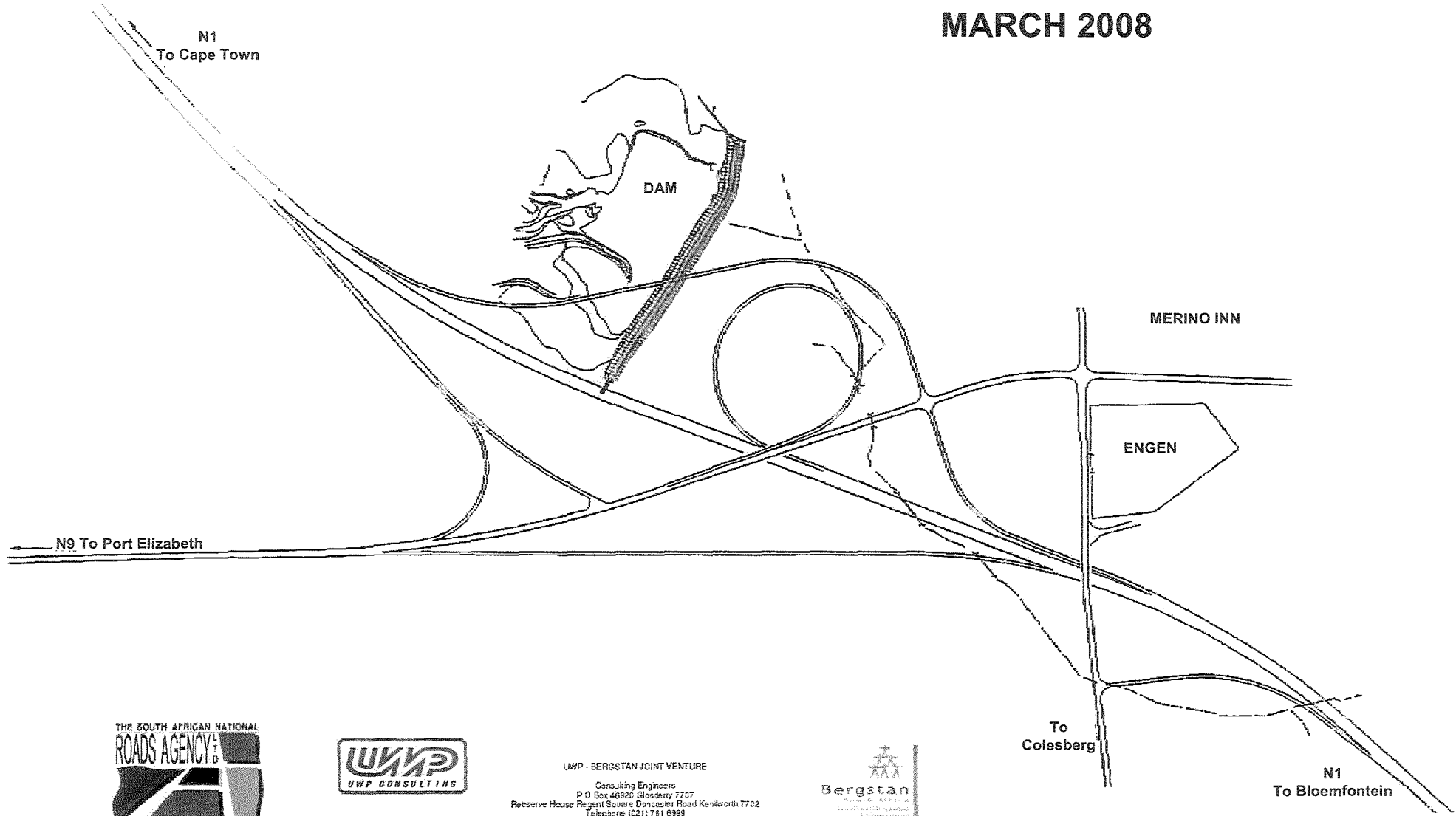
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Directors: J Crowther F Fredericks • Reg No 2003/019026/07

LAYOUT PRESENTED IN MARCH 2008



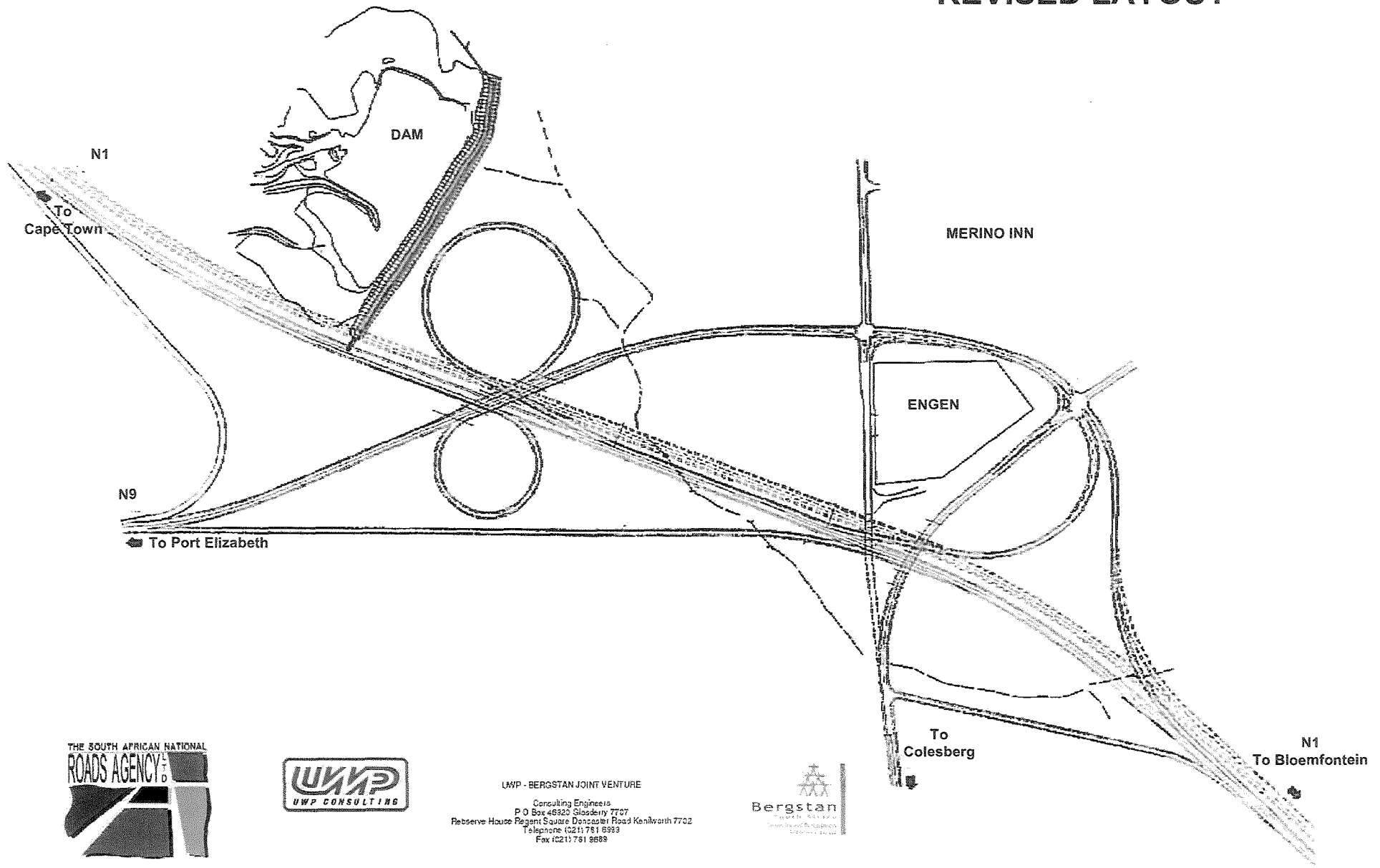
UWP - BERGSTAN JOINT VENTURE
Consulting Engineers
P O Box 46825 Glenherry 7707
Reserve House Pagent Square Dorchester Road Kenilworth 7702
Telephone: (021) 751 6999
Fax: (021) 751 9689



To
Colesberg

N1
To Bloemfontein

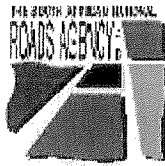
REVISED LAYOUT



UWP - BERGSTAN JOINT VENTURE
Consulting Engineers
P.O. Box 48320, Slocodery 7707
Reberse House, Regent Square, Doncaster Road, Kenilworth 7702
Telephone: (021) 761 8988
Fax: (021) 761 8688



Advertisement placed in the Graaff-Reinet Advertiser of 21 November 2008.



PROPOSED EXTENSION OF FOUR BORROW PITS IN THE COLESBERG AREA

NOTICE OF PUBLIC PARTICIPATION PROCESS



Notice is hereby given in terms of the Minerals and Petroleum Resources Development Act (Act 28 of 2002) (MPRDA), of the proposal to undertake the following activity:

Activity: The extension of four existing borrow pits located on the outskirts of the town of Colesberg. These borrow pits are required for the sourcing of material for the proposed upgrading and rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg. Three of the four borrow pits are located on Remainder of Erf 675, Colesberg and the fourth on the Farm Taaiboslaagte.

Proponent: The South African National Roads Agency Limited (SANRAL)

Environmental consultant: CCA Environmental (Pty) Ltd (CCA)

Engineering consultant: UWP Consulting (Pty) Ltd and Bergstan South Africa (Pty) Ltd

In order to obtain authorisation to extend the borrow pits an Environmental Management Programme (EMP) report in terms of the MPRDA must be submitted to the Department of Minerals and Energy.

Interested and Affected Parties (I&APs) are requested to comment on the proposed project and/or to register as I&APs. Comments should reach the offices of CCA no later than **09 January 2009** for inclusion in the EMP. Comments or requests for further information should be addressed to Eloise Costandius at the contact details below.

CCA Environmental Contact Details:

Unit 35 Roeland Square, Drury Lane, CAPE TOWN, 8001

PO Box 10145, Caledon Square, CAPE TOWN, 7905

Tel: (021) 461 1118 Fax: (021) 461 1120

E-mail: eloise@ccaenvironmental.co.za

<http://www.ccaenvironmental.co.za>

Date of Advertisement: 21 November 2008



06 September 2010

Umsobomvu Munisipaliteit
Posbus X6
Colesberg
9795

Aandag: Ben Malherbe

Geagte Mnr Malherbe

VOORGESTELDE LEENGROEWE VIR DIE OPGRADERING VAN GEDEELTE 7 VAN DIE N9 TUSSEN WOLWEFONTEIN EN COLESBERG: LEENGROEWE N1_12/4.7/0.7R); N1_12/2/1.0L; DR3058/1.8/0.05L EN N9_7/92.8/0.4R

Die Nasionale Padagentskap (SANRAL) stel voor om vier bestaande leengroewe op eiendom wat deur die Umsobomvu Munisipaliteit besit word te ontgun. Die leengroewe is op Restant van Erf 675 en Erf 1271, Colesberg geleë. Die projekspan het voorheen met Mnr Johan Pistorius in hierdie verband gekorrespondeer.

SANRAL beplan om gedurende die eerste kwartaal van 2011 te begin met die rehabilitasie van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg. Hierdie projek sal ook die konstruksie van 'n nuwe N1/N9 wisselaar insluit. SANRAL het vir UWP Consulting Engineers en BergStan South Africa aangestel om die ontwerp van die voorgestelde leengroewe te onderneem. CCA Environmental (Edms) Bpk is aangestel om 'n Omgewingsbestuursplan in terme van die Minerale en Petroleum Hulpbronne Wet (Nr. 28 van 2002, MPRDA) vir die ontwikkeling van die leengroewe saam te stel vir indiening by die Departement van Mineraalhulpbronne (DMR).

Die ligging en voorgestelde omvang van die leengroewe is op die aangehegde uitlegplanne aangedui. Toegang tot die leengroewe oor munisipale eiendom sal ook benodig word gedurende ontwikkeling en rehabilitasie van die leengroewe. 'n Kommentaarvorm is by hierdie brief ingesluit. Hierdie vorm bevestig dat u in kennis gestel is van die voorgestelde leengroewe op munisipale eiendom en bied u die geleentheid om enige kwessies te lug aangaande die voorgestelde leengroefontwikkeling. Ons vra dat u asseblief so gou moontlik die vorm aan CCA sal terugstuur by die kontakbesonderhede hieronder.

Indien die voorgestelde leengroewe deur DMR goedgekeur word sal SANRAL die spesifieke areas tydelik onteien voordat die leengroewe ontwikkel sal word. 'n Verteenwoordiger van MHP Geomatics wat die onteieningsproses namens SANRAL hanteer sal u binnekort kontak met verder besonderhede.

2/...



CCA ENVIRONMENTAL (Pty) Ltd • Consulting Services

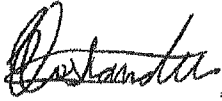
Unit 35 Roeland Square 30 Drury Lane Cape Town 8001 • PO Box 10145 Caledon Square 7905

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Directors: J Crowther F Fredericks • Reg No 2003/019026/07

Kontak asseblief die ondergetekende indien u enige vrae aangaande bostaande het.

Vriendelike groete

A handwritten signature in black ink, appearing to read 'Eloise Costandius', written in a cursive style.

Eloise Costandius
CCA ENVIRONMENTAL (EDMS) BPK

Ingesl.

Z:\jobs\uwp01col\EMPr\let mun06Sept10

**VOORGESTELDE LEENGROEWE VIR DIE REHABILITASIE VAN DIE N9/7
TUSSEN WOLWEFONTEIN EN COLESBERG
BENUTTING VAN LEENGROEWE**

**PROPOSED BORROW PITS FOR THE REHABILITATION OF THE N9/7
BETWEEN WOLWEFONTEIN AND COLESBERG
UTILISATION OF BORROW PITS**

LEENGROEF NO./ BORROW PIT NO.	BORROW PITS 1 (N1_12/4.7/0.7R); 2 (N1_12/2/1.0L); 3 (DR3058/1.8/0.05L) AND 4 (N9_7/92.8/0.4R)
GEREGISTREERDE PLAAS NAAM/ REGISTERED FARM NAME	REMAINDER OF ERF 675 AND ERF 1271
GEREGISTREERDE EIENAAR/ REGISTERED OWNER	

Ek erken dat ek verwittig is deur die Nasionale Padagentskap (SANRAL) van die voorneme om bestaande leengroewe op munisipale eiendom te benut, soos aangedui op die aangehegde plan, vir die rehabilitasie van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg; dat ek bewus is van die ligging en omvang van die gebied en dat toegang oor munisipale eiendom benodig mag word.

I acknowledge that I have been informed of SANRAL's intention to utilise the existing borrow pits on municipal property indicated on the attached plan for the rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg; and that I am aware of the location and extent of the area and that access to the area may be required across municipal property.

HANDTEKENING VAN EIENAAR OF GEDELIGEERDE

**VERTEENWOORDIGER/ SIGNATURE OF OWNER OR DELEGATED
REPRESENTATIVE**

.....

STATUS INDIEN NIE GEREGISTREEDE EIENAAR NIE/ STATUS IF NOT

REGISTERED OWNER.....

DATUM/ DATE.....

10 Augustus 2010

Taaiboslaagte (Vaal Kop) Plaas 114
Posbus 221
Colesberg
9795

Aandag: HE Hugo

Geagte Mnr Hugo

VOORGESTELDE LEENGROEWE VIR DIE OPGRADERING VAN GEDEELTE 7 VAN DIE N9 TUSSEN WOLWEFONTEIN EN COLESBERG: LEENGROEF N9_7/82.4/0.3R

Ons aangaande korrespondensie in verband met die rehabilitasie van die N9/7 tussen Wolwefontein en Colesberg het verwysing. Soos u alreeds bewus is stel die Nasionale Padagentskap (SANRAL) voor om 'n bestaande leengroef op u eiendom te ontgun.

SANRAL beplan om gedurende die eerste kwartaal van 2011 te begin met die rehabilitasie van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg. Hierdie projek sal ook die konstruksie van 'n nuwe N1/N9 wisselaar insluit. SANRAL het vir UWP Consulting Engineers en BergStan South Africa aangestel om die ontwerp van die voorgestelde leengroef te onderneem. CCA Environmental (Edms) Bpk is aangestel om 'n Omgewingsbestuursplan in terme van die Minerale en Petroleum Hulpbronne Wet (Nr. 28 van 2002, MPRDA) vir die ontwikkeling van die leengroewe saam te stel vir indiening by die Departement van Mineraalhelpbronne (DMR).

Die ligging en voorgestelde omvang van die leengroef op u eiendom sal deur Mnr Adrian Skea van UWP aan u uitgewys word op 'n terreinbesoek wat met u bevestig sal word. 'n Harde kopie van die uitlegplanne sal ook aan u gestuur word per pos. Toegang tot die leengroef oor u eiendom sal ook benodig word gedurende ontwikkeling en rehabilitasie van die leengroef. 'n Kommentaarvorm is by hierdie brief ingesluit. Hierdie vorm bevestig dat u in kennis gestel is van die voorgestelde leengroef op u eiendom en bied u die geleentheid om enige kwessies te lug aangaande die voorgestelde leengroefontwikkeling. Ons vra dat u asseblief so gou moontlik die vorm aan CCA sal terugstuur by die kontakbesonderhede hieronder.

Indien die voorgestelde leengroef deur DMR goedgekeur word sal SANRAL die spesifieke area tydelik onteien voordat die leengroef ontwikkel sal word. 'n Verteenwoordiger van MHP Geomatics wat die onteieningsproses namens SANRAL hanteer sal u binnekort kontak met verder besonderhede.

2/...



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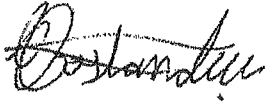
Unit 35 Roeland Square 30 Drury Lane Cape Town 8001 • PO Box 10145 Caledon Square 7905

Tel +27 (21) 461 1118/9 • Fax +27 (21) 461 1120 • email: info@ccaenvironmental.co.za • website: www.ccaenvironmental.co.za

Directors: J Crowther F Fredericks • Reg No 2003/019026/07

Kontak asseblief die ondergetekende CCA indien u enige vrae aangaande bostaande het.

Vriendelike groete

A handwritten signature in black ink, appearing to read 'Eloise Costandius', written in a cursive style.

Eloise Costandius
CCA ENVIRONMENTAL (EDMS) BPK

Ingesl.

**VOORGESTELDE LEENGROEWE VIR DIE REHABILITASIE VAN DIE N9/7
TUSSEN WOLWEFONTEIN EN COLESBERG
BENUTTING VAN LEENGROEWE**

**PROPOSED BORROW PITS FOR THE REHABILITATION OF THE N9/7
BETWEEN WOLWEFONTEIN AND COLESBERG
UTILISATION OF BORROW PITS**

LEENGROEF NO./ BORROW PIT NO.	BORROW PIT 5 (N9_7/82.4/0.3R)
GEREGISTREERDE PLAAS NAAM/ REGISTERED FARM NAME	
GEREGISTREERDE EIENAAR/ REGISTERED OWNER	

Ek erken dat ek verwittig is deur die Nasionale Padagentskap (SANRAL) van die voorneme om bestaande leengroewe op my eiendom te benut, soos aangedui op die aangehegde plan, vir die rehabilitasie van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg; dat ek bewus is van die ligging en omvang van die gebied en dat toegang oor my eiendom benodig mag word.

I acknowledge that I have been informed of SANRAL's intention to utilise the existing borrow pits on my property indicated on the attached plan for the rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg; and that I am aware of the location and extent of the area and that access to the area may be required across my property.

HANDTEKENING VAN EIENAAR OF GEDELIGEERDE

**VERTEENWOORDIGER/ SIGNATURE OF OWNER OR DELEGATED
REPRESENTATIVE**

.....

**STATUS INDIEN NIE GEREGISTREEDE EIENAAR NIE/ STATUS IF NOT
REGISTERED OWNER.....**

DATUM/ DATE.....

NAAM/ NAME.....

10 Augustus 2010

Rietfontein (Vet Vlakte) Plaas 139
Posbus 100
Colesberg
9795

Aandag: Nicolas van der Merwe

Geagte Mnr van der Merwe

VOORGESTELDE LEENGROEWE VIR DIE OPGRADERING VAN GEDEELTE 7 VAN DIE N9 TUSSEN WOLWEFONTEIN EN COLESBERG: LEENGROEF N9_7/74.8/0.1R

Ons aangaande korrespondensie in verband met die rehabilitasie van die N9/7 tussen Wolwefontein en Colesberg het verwysing. Soos u alreeds bewus is stel die Nasionale Padagentskap (SANRAL) voor om 'n bestaande leengroef op u eiendom te ontgun.

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Indien die voorgestelde leengroef deur DMR goedgekeur word sal SANRAL die spesifieke area tydelik onteien voordat die leengroef ontwikkel sal word. 'n Verteenwoordiger van MHP Geomatics wat die onteieningsproses namens SANRAL hanteer sal u binnekort kontak met verder besonderhede.

2/...



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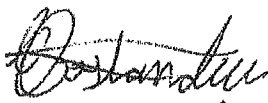
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Directors: J Crowther F Fredericks • Reg No 2003/019026/07

Kontak asseblief die ondergetekende CCA indien u enige vrae aangaande bostaande het.

Vriendelike groete

A handwritten signature in black ink, appearing to read 'Eloise Costandius', written in a cursive style.

Eloise Costandius
CCA ENVIRONMENTAL (EDMS) BPK

Ingesl.

**VOORGESTELDE LEENGROEWE VIR DIE REHABILITASIE VAN DIE N9/7
TUSSEN WOLWEFONTEIN EN COLESBERG
BENUTTING VAN LEENGROEWE**

**PROPOSED BORROW PITS FOR THE REHABILITATION OF THE N9/7
BETWEEN WOLWEFONTEIN AND COLESBERG
UTILISATION OF BORROW PITS**

LEENGROEF NO./ BORROW PIT NO.	BORROW PIT 6) N9_7/74.8/0.1R
GEREGISTREERDE PLAAS NAAM/ REGISTERED FARM NAME	
GEREGISTREERDE EIENAAR/ REGISTERED OWNER	

Ek erken dat ek verwittig is deur die Nasionale Padagentskap (SANRAL) van die voorneme om bestaande leengroewe op my eiendom te benut, soos aangedui op die aangehegde plan, vir die rehabilitasie van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg; dat ek bewus is van die ligging en omvang van die gebied en dat toegang oor my eiendom benodig mag word.

I acknowledge that I have been informed of SANRAL's intention to utilise the existing borrow pits on my property indicated on the attached plan for the rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg; and that I am aware of the location and extent of the area and that access to the area may be required across my property.

HANDTEKENING VAN EIENAAR OF GEDELIGEERDE

**VERTEENWOORDIGER/ SIGNATURE OF OWNER OR DELEGATED
REPRESENTATIVE**

.....

**STATUS INDIEN NIE GEREGISTREEDE EIENAAR NIE/ STATUS IF NOT
REGISTERED OWNER.....**

DATUM/ DATE.....

NAAM/ NAME.....

POS ADRES/ POSTAL ADDRESS.....

TELEFOON NOMMER/ TELEPHONE NUMBER.....

FAKS NOMMER/ FAX NUMBER.....

KOMMENTAAR/ COMMENT

NEE / NO

JA / YES

Please forward to/ Stuur asseblief aan

CCA ENVIRONMENTAL

Unit 35, Roeland Square, Cape Town, 8001 T: (021) 461 1118 F: (021) 461 1120

eloise@ccaenvironmental.co.za

10 Augustus 2010

Arundel, Plaas 140
Posbus 21
Colesberg
9795

Aandag: Manie Wium

Geagte Mnr Wium

VOORGESTELDE LEENGROEWE VIR DIE OPGRADERING VAN GEDEELTE 7 VAN DIE N9 TUSSEN WOLWEFONTEIN EN COLESBERG: LEENGROEWE N9_7/69.6/0.8R EN N9_7/69.6/0.3R

Ons aangaande korrespondensie in verband met die rehabilitasie van die N9/7 tussen Wolwefontein en Colesberg het verwysing. Soos u alreeds bewus is stel die Nasionale Padagentskap (SANRAL) voor om twee bestaande leengroewe op u eiendom te ontgun.

SANRAL beplan om gedurende die eerste kwartaal van 2011 te begin met die rehabilitasie van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg. Hierdie projek sal ook die konstruksie van 'n nuwe N1/N9 wisselaar insluit. SANRAL het vir UWP Consulting Engineers en BergStan South Africa aangestel om die ontwerp van die voorgestelde leengroewe te onderneem. CCA Environmental (Edms) Bpk is aangestel om 'n Omgewingsbestuursplan in terme van die Minerale en Petroleum Hulpbronne Wet (Nr. 28 van 2002, MPRDA) vir die ontwikkeling van die leengroewe saam te stel vir indiening by die Departement van Mineraalhulpbronne (DMR).

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2/...



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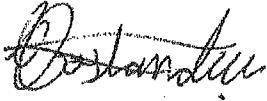
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Directors: J Crowther F Fredericks • Reg No 2003/019026/07

Kontak asseblief die ondergetekende CCA indien u enige vrae aangaande bostaande het.

Vriendelike groete

A handwritten signature in black ink, appearing to read 'Eloise Costandius', written in a cursive style.

Eloise Costandius
CCA ENVIRONMENTAL (EDMS) BPK

Ingesl.

**VOORGESTELDE LEENGROEWE VIR DIE REHABILITASIE VAN DIE N9/7
TUSSEN WOLWEFONTEIN EN COLESBERG
BENUTTING VAN LEENGROEWE**

**PROPOSED BORROW PITS FOR THE REHABILITATION OF THE N9/7
BETWEEN WOLWEFONTEIN AND COLESBERG
UTILISATION OF BORROW PITS**

LEENGROEF NO./ BORROW PIT NO.	BORROW PITS 7) N9_7/69.6/0.8R AND 8) N9_7/69.6/0.3R
GEREGISTREERDE PLAAS NAAM/ REGISTERED FARM NAME	
GEREGISTREERDE EIENAAR/ REGISTERED OWNER	

Ek erken dat ek verwittig is deur die Nasionale Padagentskap (SANRAL) van die voorneme om bestaande leengroewe op my eiendom te benut, soos aangedui op die aangehegde plan, vir die rehabilitasie van Gedeelte 7 van die N9 tussen Wolwefontein en Colesberg; dat ek bewus is van die ligging en omvang van die gebied en dat toegang oor my eiendom benodig mag word.

I acknowledge that I have been informed of SANRAL's intention to utilise the existing borrow pits on my property indicated on the attached plan for the rehabilitation of Section 7 of the N9 between Wolwefontein and Colesberg; and that I am aware of the location and extent of the area and that access to the area may be required across my property.

HANDTEKENING VAN EIENAAR OF GEDELIGEERDE

**VERTEENWOORDIGER/ SIGNATURE OF OWNER OR DELEGATED
REPRESENTATIVE**

.....

STATUS INDIEN NIE GEREGISTREEDE EIENAAR NIE/ STATUS IF NOT

REGISTERED OWNER.....

DATUM/ DATE.....

NAAM/ NAME.....



SOUTH AFRICAN HERITAGE RESOURCES AGENCY
111 HARRINGTON STREET, CAPE TOWN, 8001
PO BOX 1637, CAPE TOWN, 8000
TEL: 021 462 4502 FAX: 021 462 4509

FOR ATTENTION: SAHRA Mr. J. Sinthumule
Northern Cape PHRA

FOR OFFICIAL USE ONLY:

SAHRA File No: 9/2/023/0001

Date Received: 04/02/2010

Date of Comment: 09/02/2010

Sent to Peer Review:

Date to Peer Review:

SAHRA Contact Person: Ms. Mariagrazia Galimberti

DME Ref No:

REVIEW COMMENT ON PALAEOLOGICAL IMPACT ASSESSMENT

BY ARCHAEOLOGY / PALAEOLOGY UNIT OF THE HERITAGE RESOURCES AGENCY

South Africa has a unique and non-renewable archaeological and palaeontological heritage. Archaeological and palaeontological sites are protected in terms of the National Heritage Resources Act (Act No 25 of 1999) and may not be disturbed without a permit. Archaeological Impact Assessments (AIAs) and Palaeontological Impact Assessments (PIAs) identify and assess the significance of the sites, assess the potential impact of developments upon such sites, and make recommendations concerning mitigation and management of these sites. On the basis of satisfactory specialist reports SAHRA or the relevant heritage resources agency can assess whether or not it has objection to a development and indicate the conditions upon which such development might proceed and assess whether or not to issue permission to destroy such sites.

AIAs and PIAs often form part of the heritage component of an Environmental Impact Assessment or Environmental Management Plan. They may also form part of a Heritage Impact Assessment called for in terms of section 38 of the National Heritage Resources Act, Act No. 25, 1999. They may have other origins. In any event they should comply with basic minimum standards of reporting as indicated in SAHRA Regulations and Guidelines.

This form provides review comment from the Archaeologist of the relevant heritage resources authority for use by Heritage Managers, for example, when informing authorities that have applied to SAHRA for comment and for inclusion in documentation sent to environmental authorities. It may be used in conjunction with Form B, which provides relevant peer review comment.

- A. PROVINCIAL HERITAGE RESOURCES AUTHORITY: **Northern Cape PHRA**
- B. SAHRA PROVINCIAL MANAGER NORTHERN CAPE : **Att: Ms Rose Rose Cwangae** .
- C. AUTHOR(S) OF REPORT: **Dr John E. Almond**
- D. PALAEOLOGY CONTRACT GROUP: **Natura Viva**
- E. CONTACT DETAILS: **P.O. Box 12410 Mill St, Cape Town**
- F. DATE OF REPORT: **May 2008**
- G. TITLE OF REPORT: **COLESBERG ROAD UPGRADE PROJECT:
PALAEOLOGICAL IMPACT ASSESSMENT**.....
- II. Please circle as relevant: Palaeontological component of EIA / EMP / HIA / CMP
- I. REPORT COMMISSIONED BY (CONSULTANT OR DEVELOPER): **CCA ENVIRONMENTAL (Pty) Ltd, Unit 35 Roeland Square, 30 Drury lane, Cape Town 8001**
- J. CONTACT DETAILS: **tel: 0214622228, eloise@ccaenvironmental.co.za**
- K. COMMENTS:
- Please see comment on next page*

REVIEW COMMENT ON PALAEOLOGICAL IMPACT ASSESSMENT

Author: **Dr. John E. Almond**

Date received: **4 February 2010**, Commented: **9th February 2010** (received before but not recorded).

COLESBERG ROAD UPGRADE PROJECT: PALAEOLOGICAL IMPACT ASSESSMENT

INTRODUCTION

The development for which this Palaeontological Impact Assessment (PIA) was carried out aims to rehabilitate and upgrade section 7 of the N9 between Colesberg and Wolwefontein (32 km) and upgrade of the N1/N9 intersection at Colesberg

Four of the eight borrow pits were excavated, three into the dolerite (unfossiliferous) and one into distal floodplain sediment, to identify possible fossil evidences. Given the absence of any palaeontological interest in the area, the author decided not to pursue the excavation of the other pits and suggests that no objections are raised on palaeontological ground for the completion of the development.

SAHRA RECOMMENDATIONS

According to this PIA the proposed upgrade and rehabilitation proposed by South African National Roads Agency Limited (SANRAL) will not impact the palaeontological heritage of the area.

No palaeontological material was so far identified in the surveyed area. This does not exclude though the possibility to identify in the area impacted by the development palaeontological remains. The borrow pit 3 and the area interested by the new intersection are in fact excavated into the distal floodplain sediment of the Beaufort Group, which might be of palaeontological interest.

SAHRA therefore supports the recommendations of the author and requires that: the proposed development activity is carried out with no further mitigation.

CONCLUSION

As there is apparently no evidence of any significant palaeontological material in this area, the SAHRA Archaeology, Palaeontology and Meteorite Unit has no objection to the development (in terms of the archaeological and palaeontological component of the heritage resources) on condition that, if any new evidence of archaeological sites or artefacts, palaeontological fossils, graves or other heritage resources are found during development, construction or mining, SAHRA or an archaeologist must be alerted immediately.

In particular, where bedrock or river gravels are to be affected by mining, it is the responsibility of the developer to ensure that a Palaeontological Desk Top study is undertaken to assess whether or not the development will impact upon palaeontological resources, or at least a letter of exemption from an accredited

palaeontologist is needed to indicate that this is unnecessary. If the area is deemed sensitive, a full Phase 1 Palaeontological Impact Assessment will be required and if necessary a Phase 2 rescue operation might be necessary.

For any possible decisions in terms of section 34 of the NHRA on the Built Environment must be made by SAHRA Provincial Heritage office (Ms Rose Cwangae - Secretary: rcwangae@nc.sahra.org.za and the Provincial Heritage Resources Authority of the Northern Cape (Mr. Joas Sinthumule: jsinthumule@bp.ncape.gov.za).

SIGNATURE OF ARCHAEOLOGIST PROCESSING REPORT: *Mgalimberti*

EMAIL: mgalimberti@sahra.org.za

SIGNATURE OF SAHRA HEAD ARCHAEOLOGIST:

EMAIL: mleslie@sahra.org.za

NAME OF HERITAGE RESOURCES AGENCY: SAHRA *M. G. Leslie*

PLEASE NOTE THAT THE COMMENT (ABOVE OR APPENDED) CONSTITUTES THE COMMENT OF THE HERITAGE RESOURCES AGENCY ARCHAEOLOGIST AND THAT ANY DEVELOPMENT THAT INVOLVES DESTRUCTION OF ANY ARCHAEOLOGICAL/PALAEONTOLOGICAL SITE IS STILL SUBJECT TO A PERMIT/PERMISSION FOR DESTRUCTION OF SUCH SITE GIVEN TO THE DEVELOPER BY THE RELEVANT HERITAGE RESOURCES AGENCY ARCHAEOLOGICAL AND PALAEONTOLOGICAL PERMIT COMMITTEE (THIS WILL BE SUBJECT TO APPROVAL OF THE PHASE 2 OR ARCHAEOLOGICAL/ PALAEONTOLOGICAL MITIGATION AS NECESSARY). THIS REPORT MAY BE TAKEN ONLY AS APPROVAL IN TERMS OF SECTION 35 OF THE NATIONAL HERITAGE RESOURCES ACT. THE PROVINCIAL MANAGER OF THE HERITAGE RESOURCES AUTHORITY MUST ADVISE AS TO APPROVAL IN TERMS OF HERITAGE ISSUES ENCOMPASSED BY OTHER ASPECTS OF THE LEGISLATION, SUCH AS ISSUES OF THE BUILT ENVIRONMENT (STRUCTURES (E.G. FARM HOUSES), OVER 60 YEARS), INDIGENOUS KNOWLEDGE SYSTEMS OR OF CULTURAL LANDSCAPES AS THIS IS NOT WITHIN THE SCOPE OF THE ARCHAEOLOGIST.

PLEASE NOTE THAT SAHRA IS NOW RESPONSIBLE FOR GRADE I HERITAGE RESOURCES (AND EXPORT) AND THE PROVINCIAL HERITAGE RESOURCES ARE RESPONSIBLE FOR GRADE II AND GRADE III HERITAGE RESOURCES, EXCEPT WHERE THERE IS AN AGENCY ARRANGEMENT WITH THE PROVINCIAL HERITAGE RESOURCES AUTHORITY.



SOUTH AFRICAN HERITAGE RESOURCES AGENCY
111 HARRINGTON STREET, CAPE TOWN, 8001
PO BOX 4637, CAPE TOWN, 8000
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FOR ATTENTION: SAHRA Mr. J. Sintumule
Northern Cape PHRA

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SAHRA Contact Person: Ms. Mariagrazia Galimberti

DME Ref No:

REVIEW COMMENT ON ARCHAEOLOGICAL IMPACT ASSESSMENT

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- A. PROVINCIAL HERITAGE RESOURCES AUTHORITY: **Northern Cape PHRA**
- B. SAHRA PROVINCIAL MANAGER NORTHERN CAPE : **Att: Ms Rose Rose Cwangae** .
- C. AUTHOR(S) OF REPORT: **Dr Jonathan Kaplan**
- D. ARCHAEOLOGY CONTRACT GROUP: **Agency for Cultural Resource Management**
- E. CONTACT DETAILS: **P.O. Box 159, Riebeeck West, 7306, acrm@waccess.co.za**
- F. DATE OF REPORT: **February 2009**
- G. TITLE OF REPORT: **ARCHAEOLOGICAL INVESTIGATION OF EIGHT PROPOSED BORROW PITS FOR THE PROPOSED REHABILITATION OF THE N9 FROM WOLWEFONTEIN TO COLESBERG NORTHERN PROVINCE**.....
- H. Please circle as relevant: Archaeological component of EIA / EMP / **HIA** / CMP
Other (Specify)
- I. REPORT COMMISSIONED BY (CONSULTANT OR DEVELOPER): **CCA ENVIRONMENTAL (Pty) Ltd, Unit 35 Roeland Square, 30 Drury lane, Cape Town 8001**
- J. CONTACT DETAILS: **tel: 0214622228, eloise@ccaenvironmental.co.za**
- K. COMMENTS:
- Please see comment on next page*

REVIEW COMMENT ON ARCHAEOLOGICAL IMPACT ASSESSMENT

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Date received: 4 February 2010, Commented: 9th February 2010 (received before but not recorded).

ARCHAEOLOGICAL INVESTIGATION OF EIGHT PROPOSED BORROW PITS FOR THE PROPOSED REHABILITATION OF THE N9 FROM WOLWEFONTEIN TO COLESBERG NORTHERN PROVINCE

INTRODUCTION

The development for which this Archaeological Impact Assessment (AIA) was carried out aims to rehabilitate and upgrade section 7 of the N9 between Colesberg and Wolwefontein (32 km) and upgrade of the N1/N9 intersection at Colesberg,

Eight proposed already existing borrow pits were investigated in this report as possible material sources for the project. Four of them are around Arundel and four around Colesberg.

Few MSA and LSA stone artefacts (mostly flakes, few bladelets, some chunks and cores) mostly in dolerite, were recovered not *in-situ*. All the archaeological remains in the area have been rated as having low local significance.

SAHRA RECOMMENDATIONS

According to this AIA the proposed upgrade and rehabilitation proposed by South African National Roads Agency Limited (SANRAL) will not impact the archaeological heritage of the area.

All the stone artefacts identified in the areas were thinly scattered and dispersed over the surface of the proposed borrowed pit, with a disturbed origin. Only scattered material of low local significance was recorded and therefore SAHRA supports the recommendations of the author and requires that: the proposed development activity can be carried out with no further mitigation. It is though fundamental for the developer to remember that:

1. in the event that ancient campsites, shell middens, archaeological artefacts, unmarked human burials or other heritage resources are found during construction activities, SAHRA Archaeology, Palaeontology & Meteorites (APM) Unit (*Mary Leslie, tel: 021-4624502*) must be alerted immediately, and an accredited professional archaeologist must be contacted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological significance a Phase 2 rescue

operation might be necessary at the cost of the developer.

- Where bedrock or river gravels are to be affected by mining, it is the responsibility of the developer to ensure that a Palaeontological Desk Top study is undertaken to assess whether or not the development will impact upon palaeontological resources, or at least a letter of exemption from an accredited palaeontologist is needed to indicate that this is unnecessary. If the area is deemed sensitive, a full Phase 1 Palaeontological Impact Assessment will be required and if necessary a Phase 2 rescue operation might be necessary.

CONCLUSION

As there is apparently no evidence of any significant archaeological material in this area, the SAHRA Archaeology, Palaeontology and Meteorite Unit has no objection to the development (in terms of the archaeological component of the heritage resources) on condition that, if any new evidence of archaeological sites or artefacts, palaeontological fossils, graves or other heritage resources are found during development, construction or mining, SAHRA or an archaeologist must be alerted immediately.

For any possible decisions in terms of section 34 of the NHRA on the Built Environment must be made by SAHRA Provincial Heritage office (*Ms Rose Cwangae – Secretary: rcwangae@nc.sahra.org.za* and the Provincial Heritage Resources Authority of the Northern Cape (*Mr. Joas Sinthumule: jsinthumule@bp.ncape.gov.za*).

SIGNATURE OF ARCHAEOLOGIST PROCESSING REPORT: *M. Galimberti*

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NAME OF HERITAGE RESOURCES AGENCY: SAHRA ... *M. Galimberti*

PLEASE NOTE THAT THE COMMENT (ABOVE OR APPENDED) CONSTITUTES THE COMMENT OF THE HERITAGE RESOURCES AGENCY ARCHAEOLOGIST AND THAT ANY DEVELOPMENT THAT INVOLVES DESTRUCTION OF ANY ARCHAEOLOGICAL/PALAEONTOLOGICAL SITE IS STILL SUBJECT TO A PERMIT/PERMISSION FOR DESTRUCTION OF SUCH SITE GIVEN TO THE DEVELOPER BY THE RELEVANT HERITAGE RESOURCES AGENCY ARCHAEOLOGICAL AND PALAEONTOLOGICAL PERMIT COMMITTEE (THIS WILL BE SUBJECT TO APPROVAL OF THE PHASE 2 OR ARCHAEOLOGICAL/PALAEONTOLOGICAL MITIGATION AS NECESSARY). THIS REPORT MAY BE TAKEN ONLY AS APPROVAL IN TERMS OF SECTION 35 OF THE NATIONAL HERITAGE RESOURCES ACT. THE PROVINCIAL MANAGER OF THE HERITAGE RESOURCES AUTHORITY MUST ADVISE AS TO APPROVAL IN TERMS OF HERITAGE ISSUES ENCOMPASSED BY OTHER ASPECTS OF THE LEGISLATION, SUCH AS ISSUES OF THE BUILT ENVIRONMENT (STRUCTURES (E.G. FARM HOUSES), OVER 60 YEARS), INDIGENOUS KNOWLEDGE SYSTEMS OR OF CULTURAL LANDSCAPES AS THIS IS NOT WITHIN THE SCOPE OF THE ARCHAEOLOGIST.

PLEASE NOTE THAT SAHRA IS NOW RESPONSIBLE FOR GRADE I HERITAGE RESOURCES (AND EXPORT) AND THE PROVINCIAL HERITAGE RESOURCES ARE RESPONSIBLE FOR GRADE II AND GRADE III HERITAGE RESOURCES, EXCEPT WHERE THERE IS AN AGENCY ARRANGEMENT WITH THE PROVINCIAL HERITAGE RESOURCES AUTHORITY.