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26 September 2011

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Sir / Madam

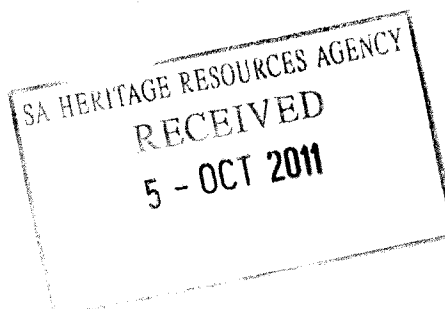
CONSULTATION IN TERMS OF SECTION 40 OF THE MPRDA OF 2002: ENVIRONMENTAL MANAGEMENT PLAN: PROPOSED BORROW PIT OF THE R61 SECTION 4 BETWEEN TARKASTAD AND QUEENSTOWN, EASTERN CAPE

1. The above refers.
2. Attached, a copy of the EMP received from South African National Roads Agency Limited (SANRAL).
3. Any written comments or requirements your department may have in this regard, to this office no later than **26 October 2011**. Failure to do so, will lead to the assumption that your department has no objection(s) or comments with regard to the said document. Comments may be submitted at your earliest convenience e.g. 30 days from the date hereof in order to reduce the turnaround time for the application process.
4. Consultation in this regard has also been initiated with other relevant State Departments.
5. Kindly quote the relevant file reference number in all correspondence.

Yours faithfully

REGIONAL MANAGER

EASTERN CAPE



**Basic Assessment Application
for the Rehabilitation of the
R61 from Tarkastad
to Queenstown
Eastern Cape**

◆
March 2011

Report No 326/03/11

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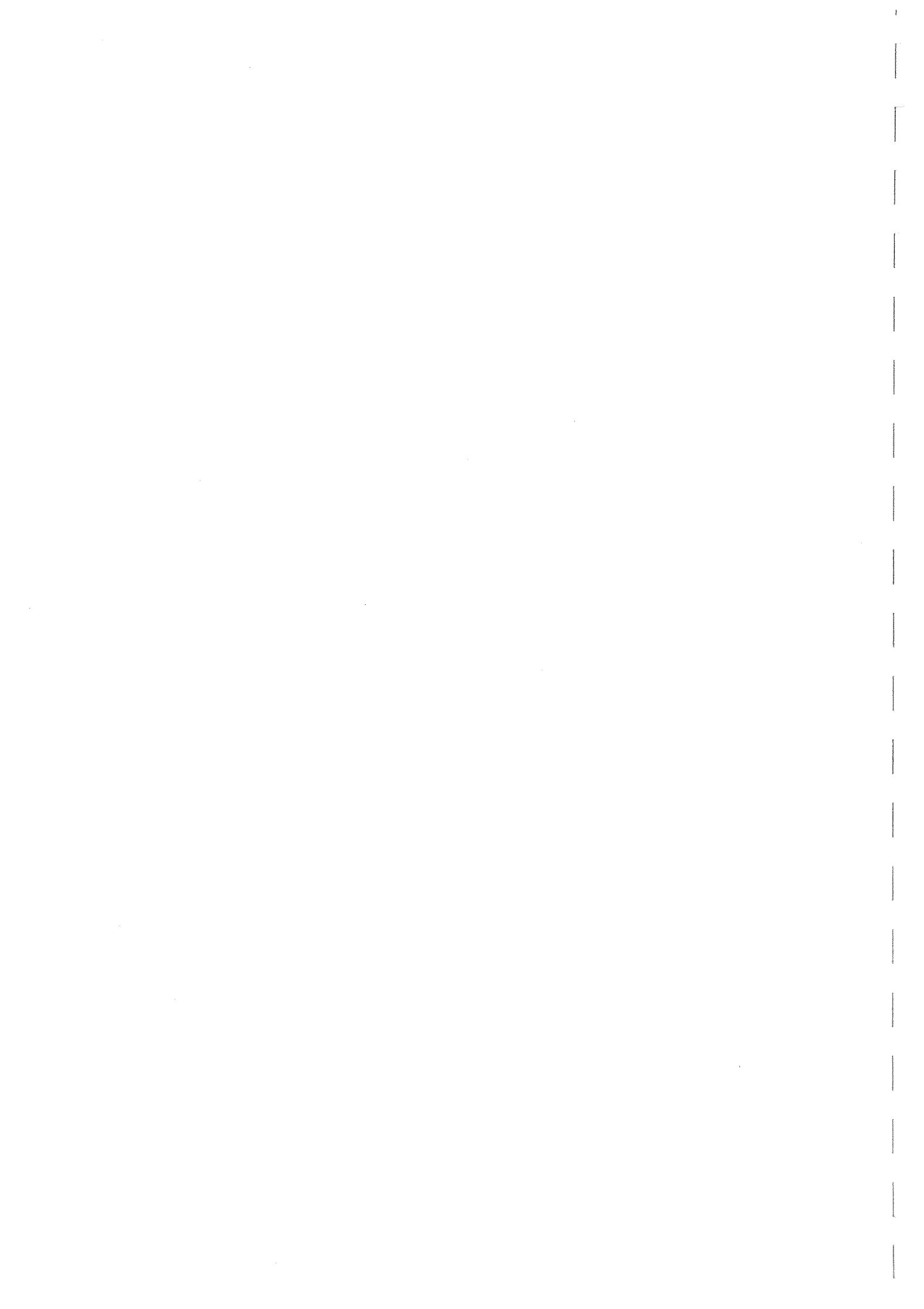
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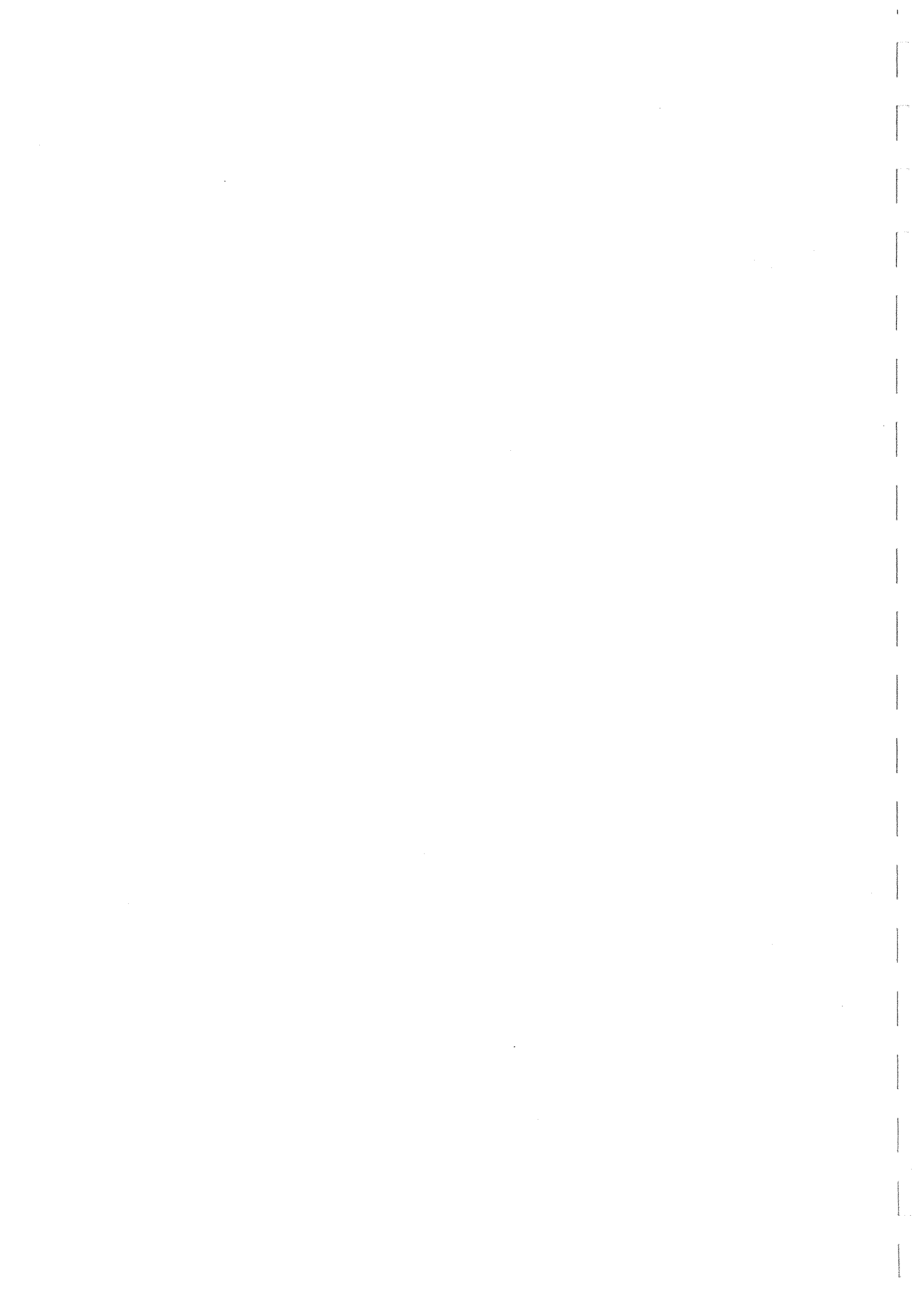
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APPENDICES

Appendix 1 Details relating to the R61 being gazetted as a National Road

Appendix 2 Public Participation Documentation



C HAPTER ONE : INTRODUCTION

1.1 INTRODUCTION

On the 21 August 2008 The South African National Roads Agency appointed Coastal and Resource Management to prepare a Basic Assessment Application and the accompanying Report for the special maintenance and refurbishment of 63.1 km of the R61 between Queenstown and Tarkastad of varying widths. **Map 1.**

The author of this report visited the site on numerous occasions between August 2008 and May 2009 and discussed the project with Goba Consulting Engineers. A site visit was undertaken 11 February 2009 in the company of officials of the Queenstown Office of Department of Economic Development and Environmental Affairs (DEDEA) and a representative from Goba Consulting Engineers. This site visit was to establish what would be required in terms of DEDEA's requirements and it was concluded that a Basic Assessment Report was necessary as the R61 was regarded as a provincial road.

However in 2009 the R61 was proclaimed a National Road **Appendix (1)** and therefore authorization had to be obtained from the National Department of Environmental Affairs DEA.

Also in 2009 simultaneously to the proclaiming of the R61 as a National Road, a Memorandum of Understanding (MOU) was signed between SANRAL and DEA which exempted certain Maintenance projects on National Roads from the EIA regulation and requirements.

At a planning meeting in February 2011 the status of work on the R61 was upgraded from Maintenance to Rehabilitation. Subsequently the improvements of the R61 were upgraded to a status of rehabilitation and not special maintenance and thus the National Department of Environmental Affairs have jurisdiction over the activity.

This application and accompanying documentation is submitted in terms of the National Environmental Management Act, Act 107 of 1998.

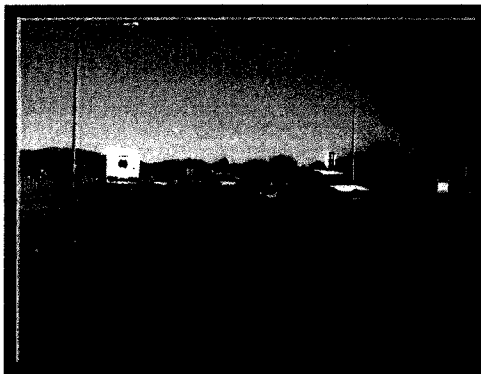


Photo 1 Entrance to R61



Photo 2 Signpost at entrance to R61

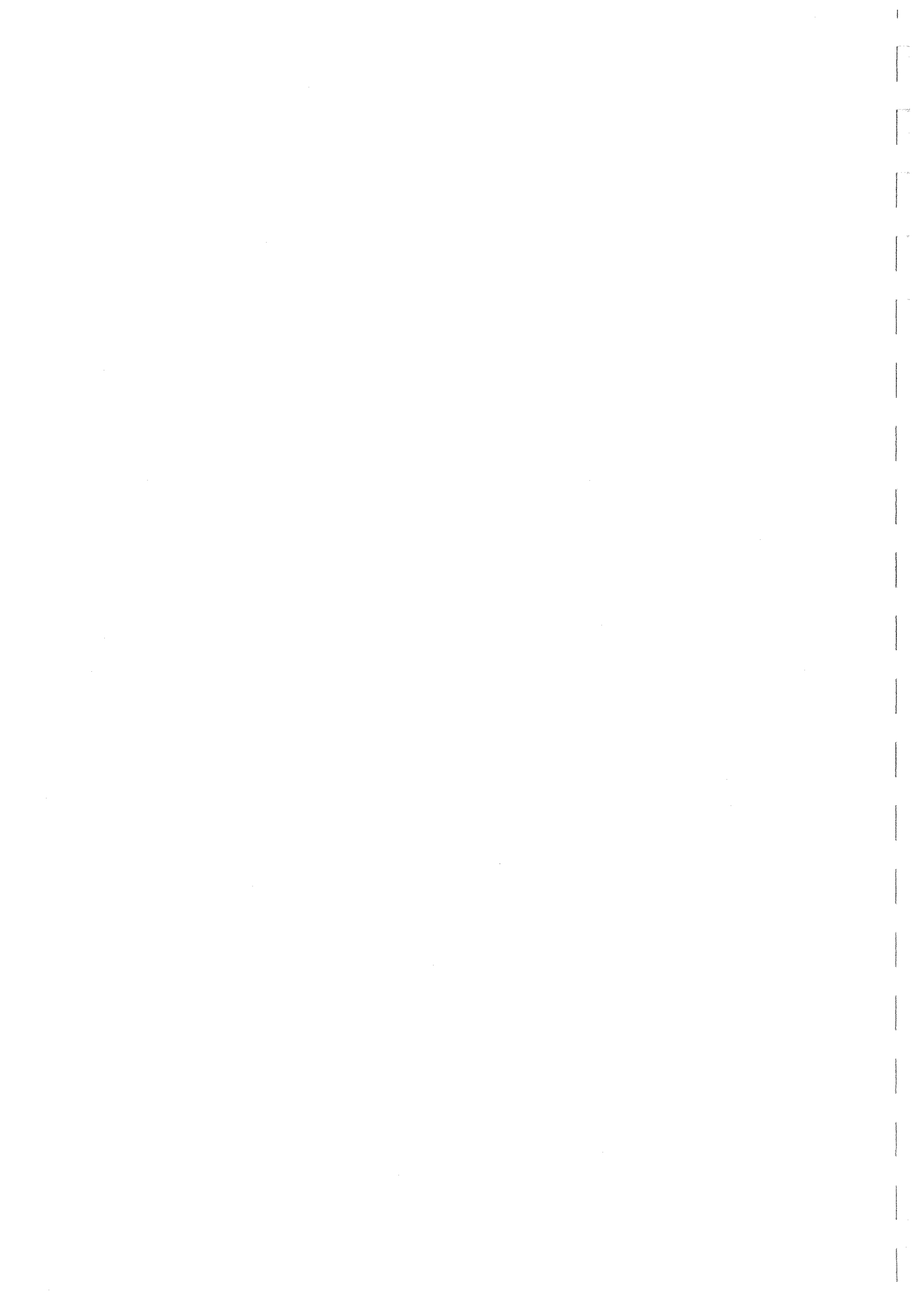




Photo 3 Bridge at entrance to Tarkastad



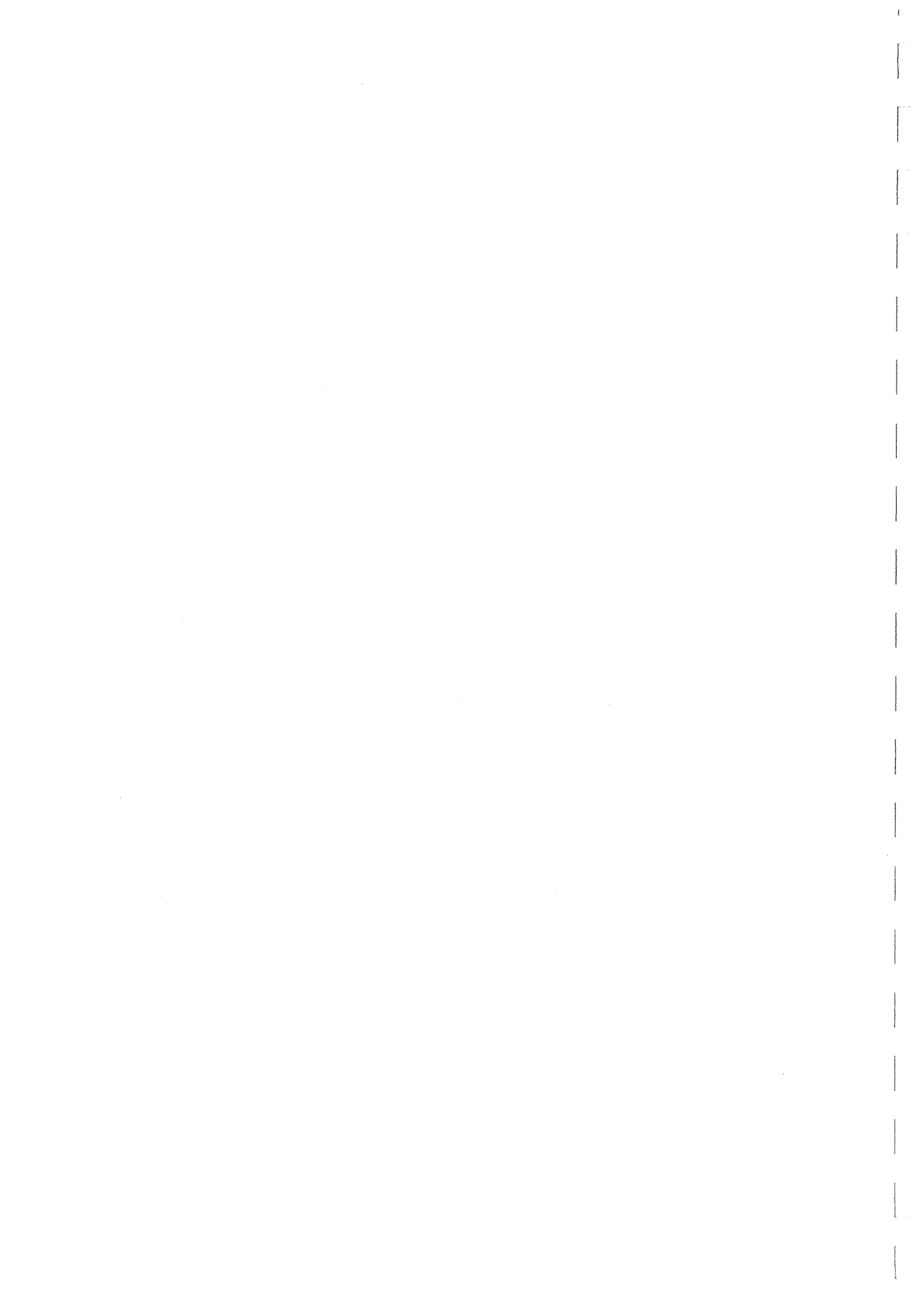
Photo 4 Entrance to Tarkastad

1.2 BRIEF PROJECT DESCRIPTION

Funds were made available for this project as a rehabilitation project for the existing R61 section 4 from km 00.0 (Tarkastad) to km 63.1(Queenstown).

The construction work on the Route 61 will largely take place within the existing road reserve as the existing road will be rehabilitated /improved almost exclusively on its existing alignment. The upgrade/ improvement will consist of the following:

- Realignment and upgrading of the R61/R67 and R61/N6 intersections to meet current safety standards;
- Upgrading and refurbishing of all accesses, intersections and junctions;
- Selective replacement of all road features including all signs, hazard plates, guard rails, etc.
- Upgrading and refurbishment of rest areas;
- Replacement, where necessary, of all fencing;
- Possible widening/ or raising of existing bridges, if required, to ensure it meets the requirements of the hydrology exacerbated by climate change and to ensure commuter safety.
- Upgrading of defective/problematic storm water culverts, side drains, cut-off drains
- The establishment of the contractor's camp and its associated infrastructure.
- Traffic accommodation through the construction of a temporary by pass along the entire route
- Earthworks which will involve the vertical re alignment of the road.
- Construction of the layer works in preparation for the final pavement to be constructed.
- Construction of Cape Seal surfacing.
- Construction of drainage facilities such as culverts with inlet and outlet structures including erosion protection.
- Provision of new fences.
- The repositioning of provincial access roads onto the R61 (now a National Road) in order to improve the safety of the access roads and to meet SANRAL standards.
- Provision of cattle grids where necessary and were requested by the local communities.
- Installation of new guardrails, road sign and road markings.



- Improvements will be made to the rest areas.
- Extraction of material from 12 borrow pits and 1 hard rock quarry (borrow pit 1) for fill and layer works. These borrow pits and the hard rock quarry will subsequently be fully rehabilitated according to the EMPR approved by the Department of Mineral Resources.
The HIA specialist report identified two borrow pit sites that contain archaeological artefacts. It is recommended that an archaeologist be present at the first site establishment meeting when the borrow pits will be prepared for mining to ensure there is no damage to the artefacts. The client also has the option not to use these borrow pits.
- Clearing the site and hydro- seeding where necessary. This will include a once off clearing of the alien vegetation.
- Constructing the road to a new cross section varying between 9.0m and 13.4m.

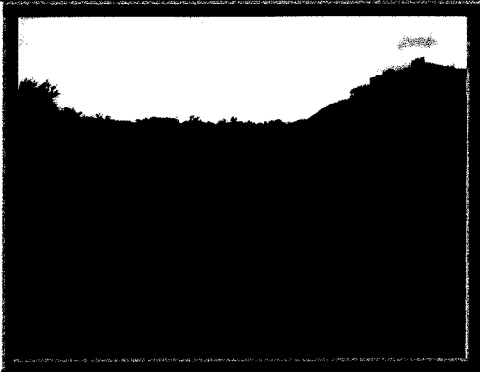
1.3 TERMS OF REFERENCE AND BACKGROUND

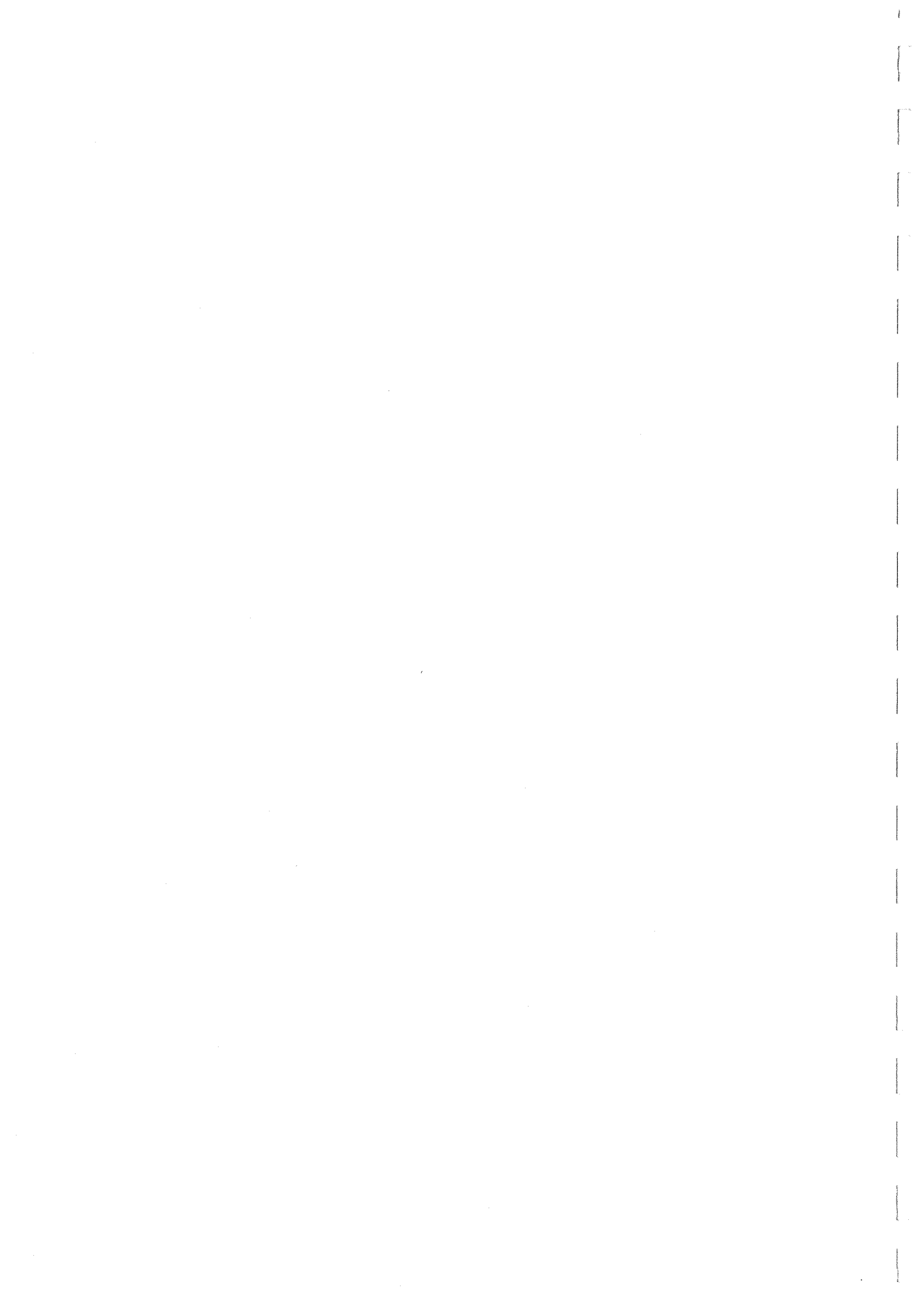
Goba Consulting Engineers and Project Managers (Pty) Limited commissioned Coastal and Resource Management in August 2008 to prepare and submit a Basic Assessment and all the necessary documentation to ensure compliance with the National Environmental Management Act, Act 108 of 1998 (NEMA). The background has been discussed under 1.1.


1.4 LOCALITY AND ROAD PROFILE

The attached map (**Map 1**) gives the regional position of the R61.

In order to examine the environmental consequences of the proposed activities a road profile follows, starting at Tarkastad and terminating at Queenstown:

Km	Profile	Comment
0.6	Running parallel to the road on the Eastern side is a large Eskom line	
0.8	200 m further we cross a stream which looks as though it has been cleaned up recently. Signage all along the road with cattle grids.	 <p>Photo 5 Unknown stream</p>
1.0	On the Eastern side there is an information sign which indicates is the R61 and that Queenstown is 63km away. A Telkom sign is running along the western side of the road	






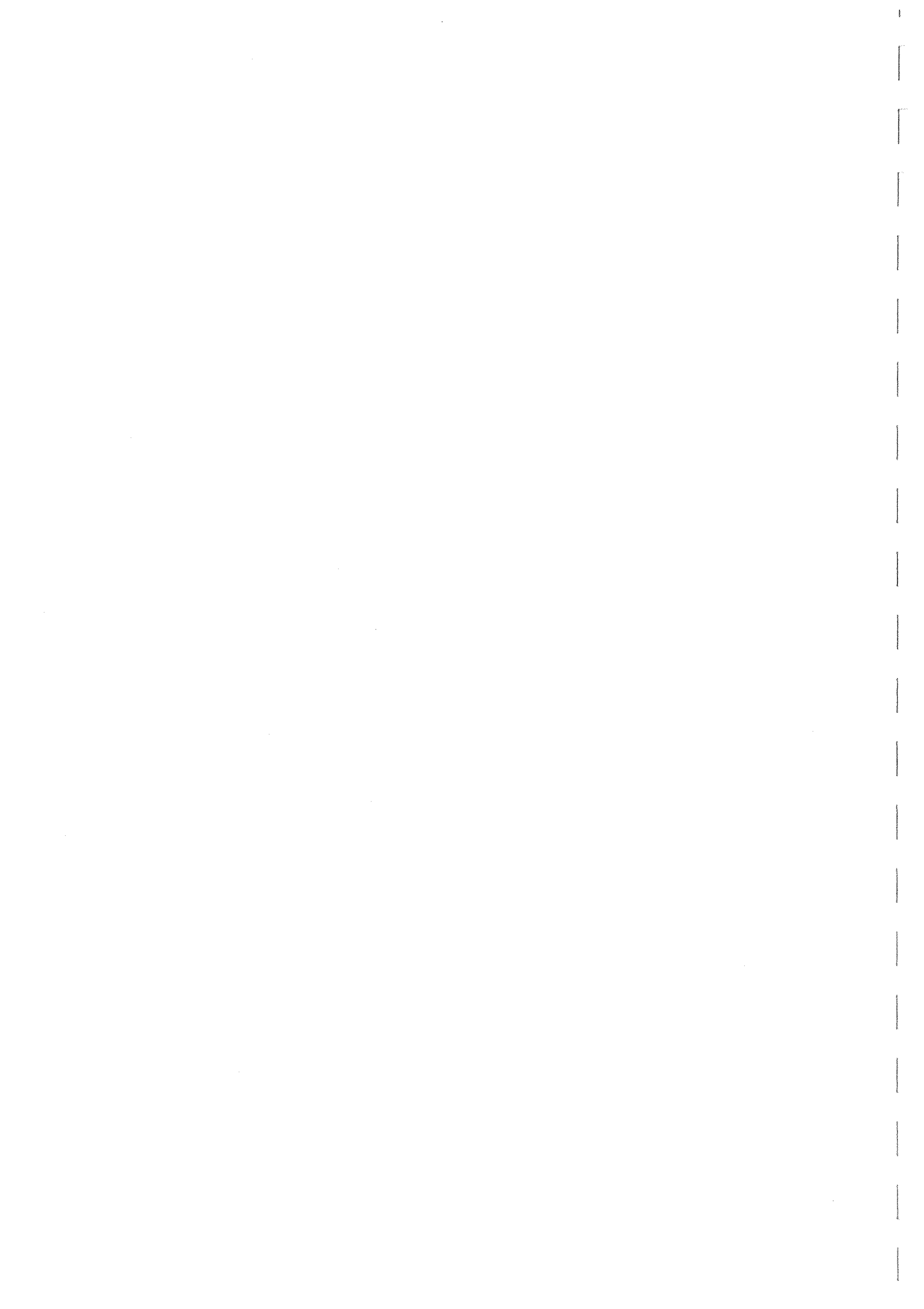
Km	Profile	Comment
1.2	Cattle grid crossing or farm gate crossing on the west and on the east there is also a farm so they are opposite each other just a little bit further along.	 <p data-bbox="931 613 1428 645">Photo 6 Typical Farm Gate along route</p>
100m further	Old culvert bridge under the road which runs from both sides. The Telkom line is still on the west.	
1.4	Large information sign indicating that a Maintenance Contract is currently in progress. The sign is located on the Eastern side of the road.	
1.6	Signage on east indicating picnic site 1.0 km hence	
2.0	On the west there is a big new structure which could possibly be an airfield.	
2.2	Borrow pit with red soft material on the western side	
2.4	Roshcon sign on the east where a new development is going up which is obviously for this project. Also a big cell phone tower. The picnic site is at 2.4 on the eastern side and also an old stockpile area on the eastern side at the picnic site for aggregate	
3.0	Huge culvert on the western side which has eroded everything. It is like a stream coming in and at the same place the Eskom line crosses from east to west. A lot of erosion in this whole area. The Eskom line and Telkom line are running parallel to each other.	
3.6	The Eskom line suddenly sends off a leg into the west. One leg goes off further inland on the west but the other line still runs parallel on the western side with the Telkom line	
3.7	Two farm gates opposite each other	
4.2-4.4	Huge side drain on the east. Looks like a dam but it is a side drain. It is an earth wall side drain	
4.8	An old concrete dam is located on the	


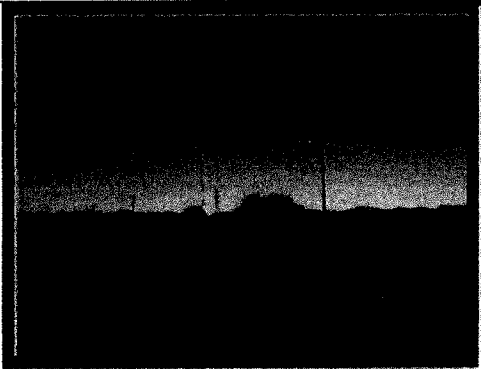


Km	Profile	Comment
	east	
5.1	Farm gate crossings on both sides right opposite each other	
5.2	Eskom line crosses from west to east but still also running parallel to the Telkom line on the western sign	
5.9	Big culvert on both sides	
6.1	Turn-off to Zuurfontein on the east. Many wild sisal plants (Agaves) and cacti on both sides of the road at this point.	
6.6	Dam or old borrow pit	
6.7	Gates on both sides of the road	
6.8	Very big culvert. Bad erosion on the east. Culvert running from east to west.	
7.2	Old wooden structure very badly eroded	
7.3	Still a lot of cacti on both sides. Another culvert with nice structures	
7.4	There are gates on both the eastern and western side of the road opposite each other. A windmill and a dam are located inland of the gate on the western side.	
7.6	Large troop of Chacma baboons present in the road reserve. Telkom and Eskom line still running on the east parallel to the road.	
8.5	Gate on the west and 100 m further on there is a pump station and dam and a big cattle feeding area on the west	
8.6	There is a culvert at this point. Other culverts will be noted but the engineering drawings will indicate the exact number and location of the culverts. There are no features that need recording with respect to the culverts.	
9.1	Gate on the east. There is also a culvert.	
9.5	Small bridge with old concrete structures on the east. Big erosion	





Km	Profile	Comment
9.6	Turn-off to the west which says Drummond Park. Also solar panels on the west	 <p data-bbox="895 622 1381 658">Photo 7 Drummond Park</p>
9.10	Culvert with some more great Chacmas drinking from the culvert	
11.0	Farm gate crossings for Pieter & Ronel Hesselmann on both sides of the road. Big side drain running along the eastern side of the road.	
11.3	Culvert. Big side drain running on the western side	
11.5	Culvert. Telkom and Eskom lines still running on the western side. Very flat. Lots of ant hills	
12.0	Another culvert running on both sides of the road. Side drain now running on both sides of the road and on the western side there are two drains. There are some Sneezewood poles which need to be salvaged if they are going to clear up the area.	 <p data-bbox="895 1402 1381 1442">Photo 8 Sneezewood fence poles</p>
13.0	Sign which reads Queenstown 50 km	 <p data-bbox="895 1850 1381 1890">Photo 9 Queenstown 50 km</p>
13.6	Sign which shows that the road is curving,	



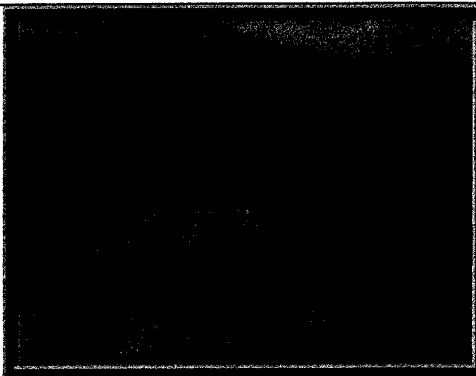


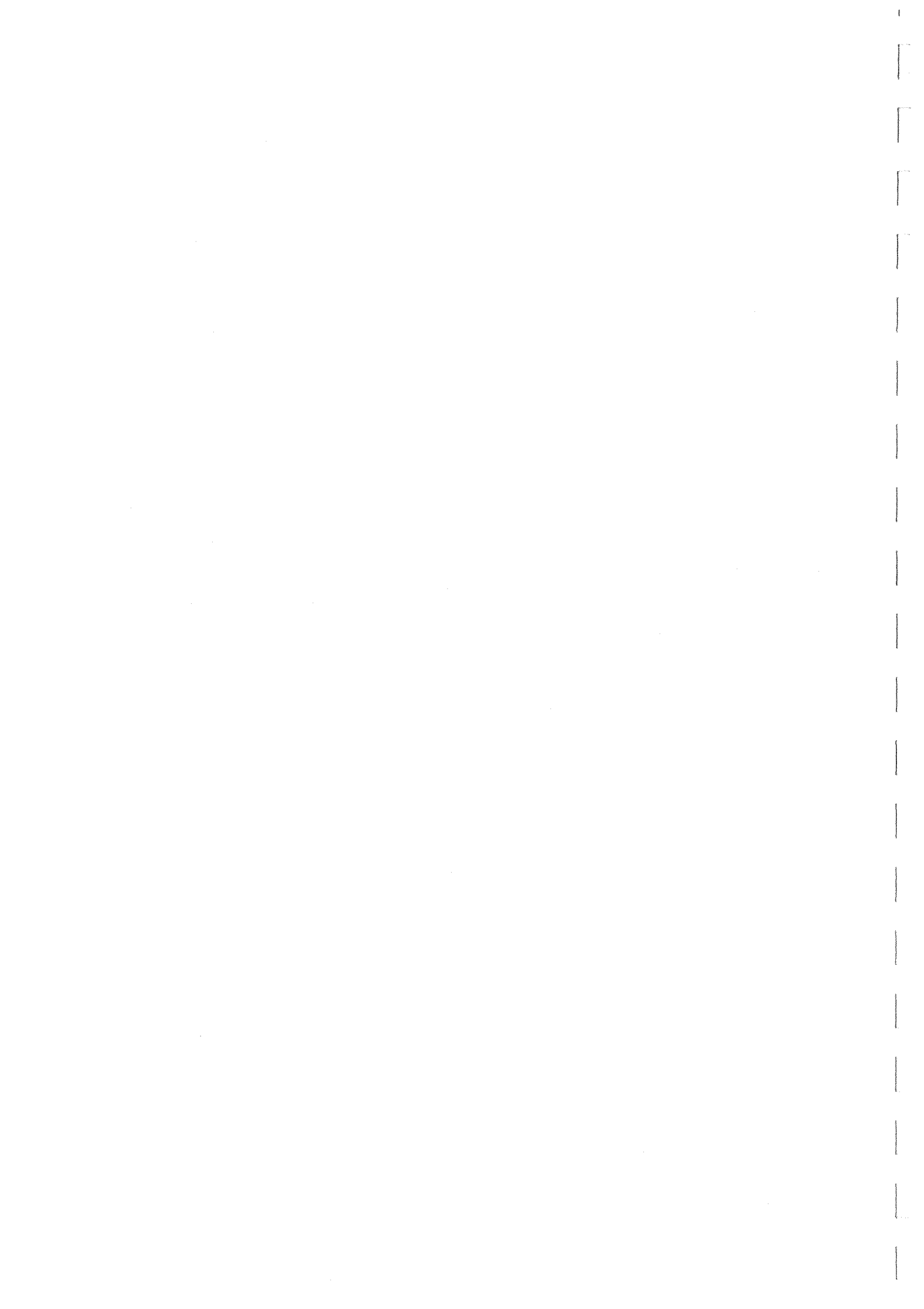
Km	Profile	Comment
14.0	Very big culvert with a side drain on both sides. It is bigger on the eastern side,	
14.7	Turn-off to Tsolwana on the east	 <p data-bbox="890 719 1309 757">Photo 10 Signage for Tsolwana</p>
15.0	Crossing but it has been fenced off to the east. Very big dam with a berm on the east. The berm has been broken or a channel has been broken into it.	
15.6	The road continues to km 15,6 where there is a gate on the east.	
16,0	There is a gate on the east and on the west. It appears to be a cross over road and will need a bellmouth to ensure safety at this intersection.	
16.8	There is a very big Eskom line - it looks like a 3 or 5 structure Eskom line coming in from the east running to the west. At the same junction underneath the line there is a gate on both sides. There is also a lot of Aloe striata in this area growing in the road reserve.	 <p data-bbox="890 1462 1309 1496">Photo 11 Eskom & Telkom lines</p>
17.0	There is a borrow pit on the west	
17.8	There is a gate on the east and some big trees on the west and the Eskom lines are still running parallel to each other.	
18.6	There is a borrow pit or a dam on the west – it could be erosion but it looks as though there has been some mining attempt and it looks like somebody has been scratching with a whole lot of shallow excavations.	




Km	Profile	Comment
19.3	The Eskom line crosses over from the west to the east and then runs eastwards	 <p data-bbox="890 611 1255 645">Photo 12 More Eskom lines</p>
19.8	There is a green Jo-jo drum with gates on both sides and a big borrow pit/dam	
20.1	There is a borrow pit on the west located adjacent to the Eskom lines	
20.4	There is a borrow pit that has been backfilled on the west	
21.0	There is a tar road crossing over the R61. There are gates to the west and there are farm lands which extend up to the road reserve. On the west there is a stone lined culvert. There are some buildings and structures in close proximity to this culvert but are located outside the road reserve.	
21.2	Went over quite a big bridge with a lot of poplars on both sides	 <p data-bbox="890 1496 1386 1525">Photo 13 Poplar bridge & Heuningklip</p>
21.6	Sign says Heuningklip to the east	
21.8	Farm houses on the west and some labourers cottages as well	
22.0	There is a gate to the east	






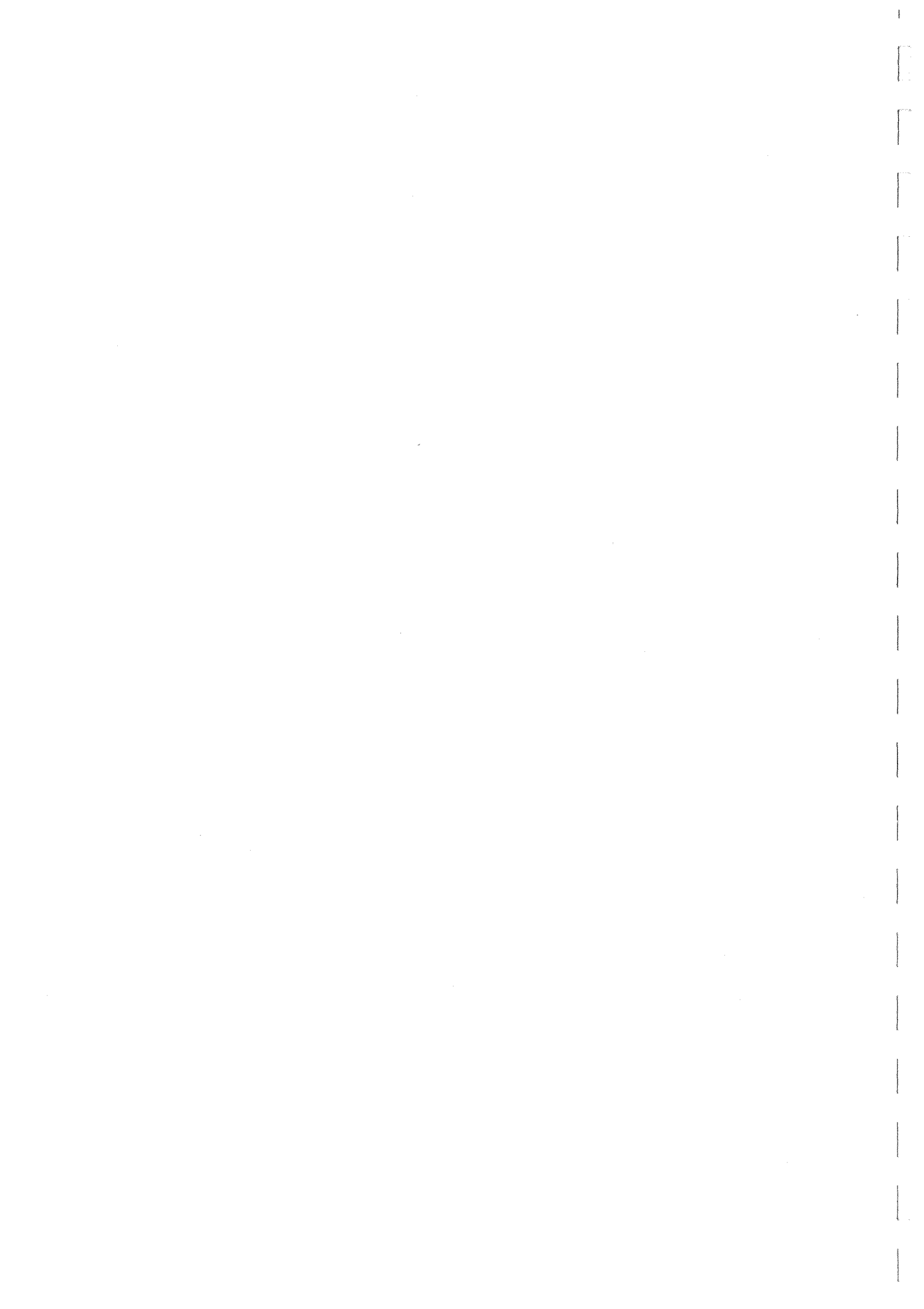
Km	Profile	Comment
22.2	Still more labourers' cottages on the west. These labourer's cottages are right up against the road.	 <p data-bbox="931 607 1313 640">Photo 14 Labourer's cottages</p>
22.3	Big borrow pit on the west. The Eskom line has disappeared it is only the Telkom line now. Cannot see the Eskom line where it has gone still running on the east.	
23.0	Signage which says Queenstown 40. There is a gate on both sides and there is a culvert.	 <p data-bbox="931 1182 1313 1216">Photo 15 Queenstown 40 km</p>
25.0	Borrow pit on the east near a dried out tree and a windmill. A large culvert drains into a dam. The farm Noordhaarfontein is located on the east and on the west there is a large borrow pit.	
26.0	The Eskom line crosses from east to west.	
26.1	Very big Eucalyptus and Pines on the east.	 <p data-bbox="931 1863 1339 1901">Photo 16 Eucalyptus and pines</p>
26.6	Concrete dam (reservoir) cattle feeding	

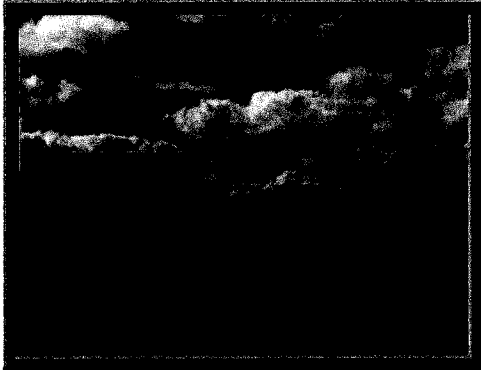
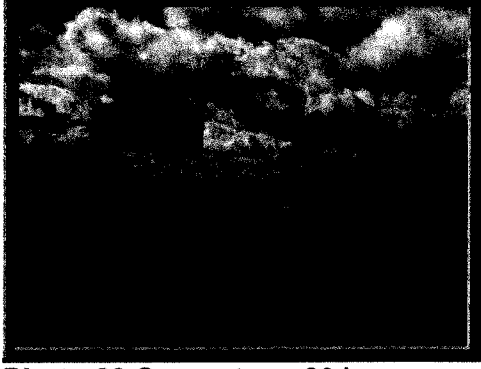


Km	Profile	Comment
	plus a single tree on the west.	
27.0	On the east there are two Jo-jo tanks, one intact and one collapsed. In the same location there is a large tree, a windmill and a feeding trough.	
28.4	Sign which says picnic site 1 km on and it's on the eastern side and it's also the first sign of a clump of bushes and there is quite a big furrow going off on the east across farmers land.	
28.7	There is a big borrow pit on the east. Cannot see the picnic site as there is open veld only.	
30.0	Picnic site consists of 2 tables and some gravel	
30.2	On the west there is a reservoir and on the east a bit further along there is a watering trough under a tree but no cattle, no water and no windmill. Presume underground pipeline.	
31.3	On the eastern side there appears to be a cattle loading station with a sign Eenmanskraal. In addition there is a non-functional windmill and the Eskom line now crosses back to the east from the west.	
31.4	Very big borrow pit on the eastern side right next to the road.	
31.5	Picnic sign which indicates that the picnic site is 1 km ahead.	
31.8	Borrow pit/dam on the western side right next to the road with a big berm in front of it.	
32.7	Picnic site on eastern side with 2 Eucalyptus trees, a single table, 4 chairs and some gravel.	
33.0	Next signage says junction coming up.	
33.2	Sign which indicates that Queenstown is 30 km distant. A secondary road branches off to the west. There is an old concrete structure on the east probably relating to the decommissioned railway line.	
34.1	Pedestrian crossing on the western	<p>Photo 17 Queenstown 30 km</p>

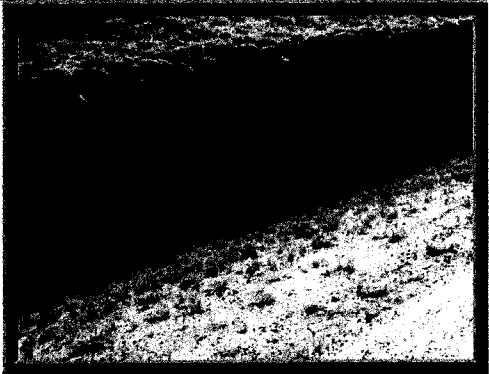
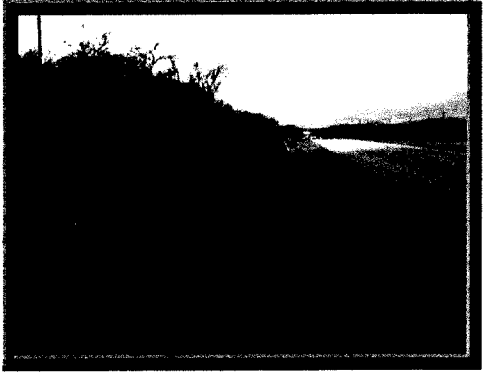


Km	Profile	Comment
	side	
34.4	There is a community under the big 'koppie' on the western side.	 <p data-bbox="900 645 1370 680">Photo 18 Community</p>
34.8	Feeding trough on the west	
34.9	Windmill on the east and cattle pond and a gate on the west and 100 m further along there is a gate on the east and the west. There is still this big side drain running on the eastern side all along the fence line and there are lots of culverts coming in. I think it must be every 100m	
35.7	Signage which says Smitskraal on the eastern side	
37.3-37.5	On the western side there is a big concrete culvert, a community and some pump stations and on the eastern side there are some water troughs and cattle gates which look like community cattle gates. The cattle are grazing in the road reserve.	 <p data-bbox="900 1451 1370 1518">Photo 19 The Ntabethemba community</p>
38.6	Big sign which says Ntabethemba going to the west and Lehmansdrift going to the east. There are gates and cattle grids on both sides of the road which is a tar road which leads off into a gravel road on both sides. There also appears to be quite a big dam at the same junction and the signposts here also say Tarkastad R61 to the north and R61 Queenstown to the south. On the mountains on the west there are some big Telkom towers	 <p data-bbox="900 1899 1370 1930">Photo 20 Entrance to community</p>

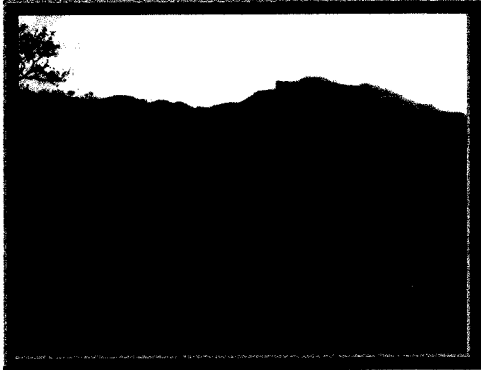



Km	Profile	Comment
38.8	There is a dam on the western side below the big dam possibly a little cattle dam but I see the wall of the big dam is breached.	
39.2	Picnic site on the west with 3 Eucalyptus trees and 2 tables	
40.0	Sign which indicates Ntabethemba 16 km, Thornhill 10 km. There is a police station sign leading off to the west. The Police Station sign also contains information with indicates that the Thornhill CHC is 2 km distant.	 <p data-bbox="926 848 1381 909">Photo 21 Signage for Thornhill and Ntabethemba</p>
41.0	A farmers gate on the east.	
41.8	Big culvert with an erosion donga on the east which is very bad as it is on the west and these need to be addressed somehow.	
42.0	Another big culvert running from east to west. Also some substantial erosion and something needs to be done to stabilise it. Run-off from the storm water is very bad.	
42.2	Turn-off to the west	
42.8	Turn-off to the east. Sign says Madley W J Kruger	
43.0	Sign which says Queenstown 20 km	 <p data-bbox="926 1740 1303 1760">Photo 22 Queenstown 20 km</p>
43.9	On west big cattle feeding trough and water reservoir.	
44.1	Farmers gate on both sides of the road.	
45.0	Big turn-off to the west which says Farm Watch and there is also a road going off at an angle to the east.	

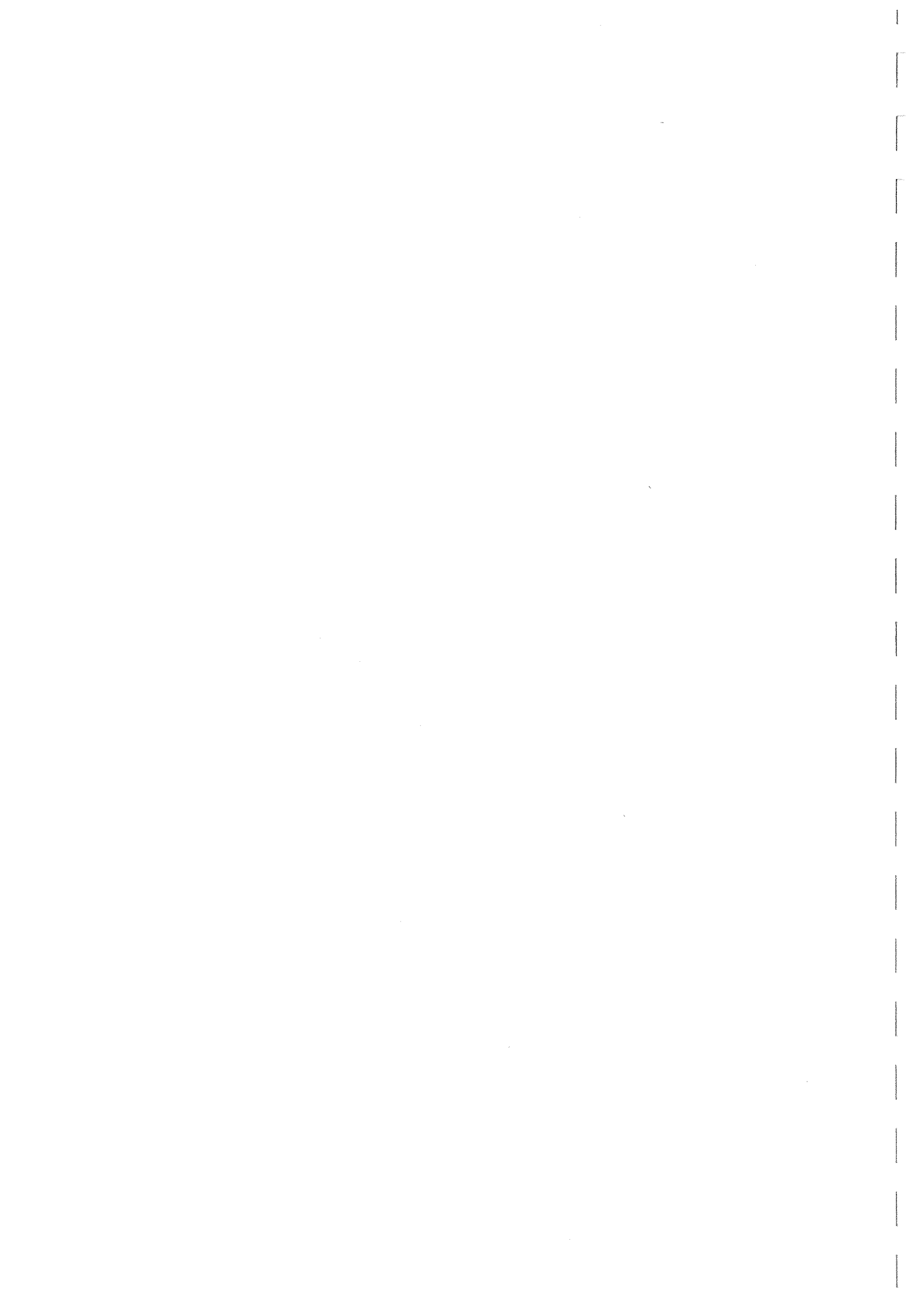




Km	Profile	Comment
45.2	Telkom line running on both sides of the road and have crossed a very big culvert which is badly eroded	
45.4	Road entrance to the west.	
46.8	Huge 5 structure Eskom lines coming in from the east. Farm road on both sides crossing over and the Telkom line is still running on both sides of the road.	
47.1	Big Culvert crossing both sides of the road	
47.2	Picnic site on the west. 2 tables, 1 Pine tree. Also very big drainage route going off on the west which is badly eroded.	
49.0	To the east there is an entrance to the property but it is fenced off.	
49.2	Very nice stone pitched embankment.	 <p>Photo 23 Stone pitched embankment</p>
49.3	The embankment continues.	
49.6	The stone pitched embankment is still there. Should try to emulate this on the rest of the road as it looks very good and it stood the test of time.	 <p>Photo 24 More stone pitching</p>
50.0	Tree species Acacia, Myrtina, aliens are Agave and cactus. Also Syringa, Pine and Eucalyptus on the side and there is a Rhus which is indigenous and I have seen very little here that I can say is indigenous or exotic.	
51.0	Stockpile of aggregate on the west	
51.2	Sign that goes off to the west which says Langside and also on the right	



Km	Profile	Comment
	which says Langs Mr Schneier. A few meters on there is a little dam on the west – newly built	
51.3	A gate leading on to a gravel road running under the Telkom line which crosses from west to east.	
51.4	A second 5 pole structure Eskom structure crosses over from west to east. A sign indicating Sunways Fanie Nel demarcates a gravel road which leads to the farm. This is on the eastern side.	
51.5	There are gates crossing from east to west and west to east also underneath this Eskom line.	
52.2	There is sign which indicates the farm Upper Fairview on the west which belongs to T V Hansie. The Telkom line is now running on the western side.	
52.6	There is a cross over road running at this distance.	
52.9	There a gate going to the west.	
53.0	Signage says Queenstown 10 km	 <p data-bbox="890 1375 1282 1406">Photo 25 Queenstown 10 km</p>
53.2	Gate going off to the east.	
53.6	Eskom crosses from east to west. It is a 5 pole structure. There are also farmer's gates going on both sides of the road.	
53.8	Big dam on west. Some farm lands, some junk diesel tank storage.	
54.0	Place called Landman Eerste Geluk Rooirand going off to the east but there are also gates going off to the west. Also a big culvert there and an entrance for the farmer.	

Km	Profile	Comment
54.8	The river is called du Plessis with a bridge which was built in 1959 with a weir on the western side. There is also a gate on the western side just beyond the river and now the Telkom line has come in from the east and is running parallel to the road and there is also a big quarry on the eastern side	 <p data-bbox="890 622 1365 663">Photo 26 du Plessis Bridge</p>
55.0	Lots of lands possibly Lucerne from 54.0 to here all on the eastern side.	
55.2	Entrances on both sides of the road. Also an old farm machine on the western side	
55.4	Water reservoir and a water feeding trough on the western side with a big cattle camp right onto the road. The road verge is full of Verbena – purple and white and also Gazanias – bright yellow..	
56.2	Dam on the eastern side – could be a quarry.	
56.4	Some farm buildings	
56.7	Road coming in from the eastern side and its marked.	
56.8	Big borrow on the western side and on the eastern side and there is a windmill on the western side. A bit further on is a sign which goes off to the east and says Flowers Halt.	
57.2	Mordene Stables on the eastern side.	
57.3	Road going off to houses on the western side and reservoir tanks. Looks like a farming community. Lot of development on both sides now – on the outskirts of peri urban Queenstown.	
57.6	Gate going off to the west says Silver Oaks. The railway line is running along the eastern side.	
58.1	4 Gates going off on the western side.	
58.5	Idlewild Guest House is located on the western side. The railway line is still running on the eastern side and the Telkom line and a subsidiary Eskom line are located on the western side.	
59.0	Telkom line running next to the railway line on the eastern side and Telkom	



Km	Profile	Comment
	and Eskom running on the western.	
60.0.	Signage and road curving to the right and lots of blue gums in the road reserve	 <p data-bbox="931 712 1370 741">Photo 27 Signage to Queenstown</p>
60.2-61.0	Approaching a stop sign at a fork in the road. There is a row of Pines on the eastern side. The above sign indicates the directions to Whittlesea and Fort Beaufort. On the west is the R67. A warning sign indicates this is a dangerous intersection and the speed limit is 80 km.	 <p data-bbox="931 1120 1260 1146">Photo 28 Signage to R67</p>

1.5 LIMITATIONS AND ASSUMPTIONS

The general purpose and scope of this report has been given in the Terms of Reference. There are, however, certain limitations and assumptions upon which this report is based. These are outlined below

1.5.1 Baseline Data

The baseline data used in this report was obtained from the following sources:

- Information supplied by Goba Consulting Engineers and Project Managers.
- Information obtained from literature surveys.
- Information collected from a site visit during the study period.
- Information supplied by consulting with various members of the informal housing community and the ward councillors.
- Information obtained during the public meeting process.

1.5.2 Timeframe of Report Compilation

This report was compiled during a period in which the National Government had tasked all levels of government to deliver both housing and infrastructure in terms of the goals set in the ASGISA report. One critical element in terms of National government policy was to ensure that the influx of foreign visitors to South Africa during the 2010 World Soccer Cup would be able to report back to their constituencies that South Africa was “delivering” and more importantly that the poor were benefiting from the ASGISA policy.



1.5.3 Scope of Report

This report is a Basic Assessment Scoping Report and is not intended to be a document depicting aspects of planning. It is intended to be interpreted and used as an aid by those who will be engaging in planning. It must perforce tread a delicate path between being overly prescriptive on the one hand and excessively "open to interpretation" on the other. Should this result in any confusion on the part of those planning any project in the area under discussion in this document, they are encouraged to contact the author of this report in order to gain clarification. Should clarification not be sought then it must be taken that on matters open to interpretation, the option most favourable to the environmental well being of the area is intended in this report.

1.6 DATA AND INFORMATION FOR THE ENVIRONMENTAL ASSESSMENT

Field observations were carried out in September 2008 and again in February 2009 in the company of a staff member of Goba Consulting Engineers and three members from DEDEA

En route to various other projects in the area this route is regularly travelled and additional information is, therefore, collected and will be added to this report until it is submitted.

Local knowledge of the area assisted in determining the environmental impacts. In addition, the consequences of similar developments on the abutting properties were examined and the impacts of the existing infrastructural refurbishment gave insight into mitigation measures required.

1.6.1 Literature Review

Literature pertinent to this area and its immediate environments has been reviewed. This literature included both published and unpublished reports. (Acocks 1975; Bromilow 1995; Brooke 1984; Bulpin 1980; Hilton Taylor 1996; Low and Rebelo 1998 ; Palgrave 1983; Pierce 2003; Pierce & Mader 2006; Smithers 1986; Van Oudtshoorn 1992; Van Riet, Claasen, van Rensberg, van Viegen & du Plessis 1997 and Van Wyk & Smith 1996.

1.7 APPLICABLE LEGISLATION

The following legislation will have bearing on any project which in terms of the National Environmental Management Act (NEMA), Act 107 of 1998 is regarded as a listed activity or scheduled process. Cognisance must also be taken of the Government Notices R386 and R618 promulgated and gazetted under NEMA which will list the activities triggered by the proposed development. Compliance with the legislation is the responsibility of both proponent and the contractor involved in the project. Ignorance of the law will not exonerate an offender from prosecution under the following Acts:

1. National Environmental Management Act, Act 107 of 1998.
2. The National Water Act, Act 36 of 1998.
3. Conservation of Agricultural Resources Act, Act 43 of 1983.
4. Occupational Health and Safety Act, Act 85 of 1993.
5. Soil Conservation Act, Act 76 of 1969.
6. Weeds Amendment Act, Act 32 of 1964.
7. Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of

2002)

8. The National Environmental Management Act, Act 107 of 1998.
9. Water Services Act, Act 108 of 1997.
10. South African Historical Resources Act, Act 28 of 1996.
11. Atmospheric Pollution Prevention Act, Act 45 of 1965.
12. Conservation of Agricultural Resources Act, Act 43 of 1983.
13. National Environmental Management: Biodiversity Act, Act 10 of 2004.

1.8 PUBLIC PARTICIPATION

Public participation was undertaken in a slightly different format to the traditional manner. Dr Mongezi Noah from SANRAL visited all communities, Ward Councillors and Ward Representatives as well as Community Development workers to alert those who would be identified as Interested & Affected parties that public participation would be commencing at a date to be determined once all the project data was available.

Prior to the public participation Dr Mongezi from SANRAL, Mr C Jones from Goba Consulting Engineers and Mrs Muller from Coastal and Resource Management had meetings with the Mayoress of Tarkastad and her councillors.

This process ensured that all communities were represented at the public meeting.

Other Interested and Affected Parties, Government Officials and Local Authorities were also targeted and invited to the public meeting.

Details relating to the public meetings may be viewed in **Appendix 2**.

1.9 ALTERNATIVES EXAMINED

1. No – go option.

The no – go option was examined but was rejected due to the following:

- The road is in a poor state of repair and failing in many sections throughout the distance under discussion i.e. approximately 63.0 km.
- In its current state of disrepair it is a safety hazard for road users.
- It is extremely expensive to continuously patch and repair the road as this has to be repeated ad nauseam without any permanent improvement or commuter benefit.
- The current state of the road is too poor to continuously patch and repair and is an irresponsible use of tax payer's money.

2. Periodic maintenance strategy.

The possibility of implementing a maintenance strategy over and above the Routine Road Maintenance (RRM) was examined but this was discarded as it was too expensive to continuously patch and repair the road with no long term benefit.

RRM already routinely repair the road but cannot keep ahead of the repairs that are required due to the poor state of the road. This increases the danger to the road users.



3. Alternative materials examined.

Alternative materials examined for constructing the road are:

- **Gravel:** Although there is an abundant and readily available supply of gravel material available in the area of the road, this is not a sustainable surfacing material to use for a national road.
- **Concrete:** Concrete is too expensive for a road carrying relatively low volumes of traffic such as the road under discussion.
- **Bitumen:** This is the only viable and sustainable use of surfacing material for this type of road. All the necessary materials occur in close proximity to the road and are the accepted standard used for the construction of a national road.

4. Upgrade the Road

The only viable option left is to upgrade the road as is currently planned. This option will be a responsible action on the part of SANRAL. Tax payer's money will be effectively used and the commuter will have a safe and pleasant route to travel due to the upgrading of the road. Accident numbers will be decreased.

Being the improvement of an existing national road of significant economic importance in the Eastern Cape, the following aspects need to be considered when addressing the issue pertaining to alternatives.

4.1 Location: The road was originally built in this position as it was the most cost effective in terms of construction. As such it already impacted the environment and locating it to another position would incur unwarranted and high costs adding no value as well as impacting upon the environment.

4.2 Size: The road is at present between 6.0 and 7.0 m wide. As a result of the growth in traffic over the last 40 years it is now required to provide climbing lanes in order to accommodate the larger traffic volume whilst operating safely. Therefore the road will be built to a new cross section varying between 9.0 m and 13.4 m in width. The width of the road is a minimal sustainable width as the surfaced shoulder provides protection to the inner traffic carrying lanes. The length of the road for understandable reasons cannot be made shorter.

4.3 Methodology: The upgrading of the road will be undertaken using the most suitable and economical techniques that are currently available. The materials would be sourced in close proximity to the project area due to the high cost of transport.

Considering the above there is no alternative way of undertaking the upgrading of the road.



C HAPTER TWO : CURRENT DEVELOPMENT

2.1 INTRODUCTION

This chapter describes the existing situation in the vicinity of the R61.

2.2 CURRENT DEVELOPMENTS ALONG THE R61

The route traverses low lying, flat land with minor undulations between Tarkastad and Queenstown. Most of the land is used for stock grazing. The land is owned either by cattle farmers or communities. There are very few other agricultural practises such as growing crops, fruit or berries in the area.

2.3 REGIONAL CONTEXT

The towns of Queenstown and Tarkastad are situated at the two ends of the R61 within the Amahlathi District Municipality. The Amahlathi District Municipality has its head quarters in Queenstown.

Queenstown is the principal town of the Cape Midlands and is also considered the commercial, administrative and educational centre of a prosperous farming area. Queenstown is also considered to be a communications road and railway centre as well as a staging post of considerable importance and a gateway both north and south.

The town is pleasantly situated and from any of the overlooking heights many handsome views of the midlands topography are provided. The slopes of the **Madeira Mountain** were proclaimed as a nature reserve in May 1964. A seven kilometre long gravel road leads through this reserve to the summit of the mountain from where a sweeping panoramic view may be seen. Blesbok, springbok and ostriches roam the reserve while the flora is varied and interesting. In winter (July August) the ***Aloe ferrox*** is in full bloom while in spring (October November) the numerous species of Acacia trees are covered in red and yellow flowers. Cycads may also be seen and fine specimens may be found 6 km south of the town at Fincham's Nek.

The towns of Queenstown and Tarkastad are well serviced with existing, howbeit old, infrastructure. One of its great needs for the area is the demand for good, well maintained infrastructure to supply the needs of all members of the society. In both towns there is a steady expansion of informal and low cost housing development due to the rapid urbanisation taking place throughout South Africa. This in turn causes additional stress on the existing infrastructure.

2.4 CLIMATIC INFLUENCES

a) Brief Description of Regional Climate

The site falls within the semi arid plateau of South Africa and exhibits the following climatological statistics:



b) Rainfall

Table 1: Precipitation Data

Month	Mean Rainfall (mm)	No of days with Measurable precipitation	Maximum rainfall per 24 hours (mm)
Jan	65	10.5	64
Feb	84	10.7	69
Mar	88	11.6	60
Apr	41	7.4	48
May	21	4.8	37
Jun	15	3.0	32
Jul	9	2.2	51
Aug	21	3.3	62
Sep	19	4.5	49
Oct	48	8.8	39
Nov	54	8.2	48
Dec	69	9.0	120
534 annual average		84 days per year	120 max in 24 hrs

*Weather Station Stats at Queenstown 1960 -1980 – (Field guide to the Eastern Cape 1987)

The implications of this rainfall pattern for further post construction rehabilitation are:

- The relatively low rainfall limits the options of revegetation during rehabilitation generally restricting it to natural revegetation. Unless revegetation occurs during the wetter months and assistance is given by applying mulch and compost.

a) Mean monthly maximum and minimum temperature

Table 2: Temperatures Data

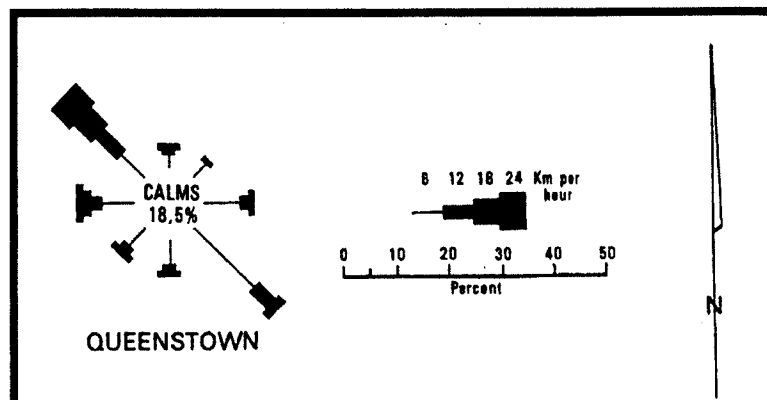
Month	Mean Max temperatures	Mean highest Temperatures	Mean min temperatures	Mean lowest temperatures
Jan	29.3	40.0	14.7	7.0
Feb	28.3	40.0	14.8	4.0
Mar	26.5	37.1	13.4	1.5
Apr	23.6	34.0	9.5	-1.1
May	20.6	32.0	6.0	-5.5
Jun	17.9	26.7	3.2	-6.5
Jul	18.3	25.7	3.1	-7.5
Aug	20.1	30.0	5.0	-6.7
Sep	22.6	35.5	7.7	-3.6
Oct	24.0	36.5	9.6	-2.5
Nov	26.2	36.0	11.6	0.1
Dec	28.4	40.0	13.5	3.0
	21.85°C annual average	34.45°C annual mean max average	8.5 °C annual mean min average	-0.25 °C mean annual lowest

*Weather Station Stats at Queenstown 1960 -1980 – (Field guide to the Eastern Cape 1987)



b) Mean monthly wind direction and speed – (the two-hourly wind speed and direction)

c)



d) Mean monthly evaporation

Table 3: Evaporation Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
A-Type Plan	205.8	161.7	134.4	103.7	90.7	79.1	92.2	119.7	134.6	153.9	172.5	209	1657.

e) Incidence of extreme weather conditions – frost, hail, drought and high winds.

The area is subject to extreme weather in the form of hail, or prolonged thunderstorms. It hails approximately 4 days per annum. Extremes in temperature occur during summer and winter and the surrounding areas like the Penhoek Pass experience snow falls at least once per winter season. The snowfall usually closes the pass for a couple of hours but in severe cases for a couple of days and totally disrupts transport to the north and south.

The implications of climate in general on development and related activities as well as on rehabilitation are:

The fairly good summer rainfall provides the option of revegetation by grass seeding to re-establish current carrying capacity, provided that the grass is planted immediately after the first spring rains.

The predominant summer rainfall would limit supplementary rehabilitation seeding to the months of late September to early March during the maintenance period.

The climate is classed as warm temperate with most rain falling during summer. The average annual rainfall for Queenstown, the closest weather station, is 534mm. Periods of intense rain do occur and the maximum recorded rainfall for a 24hr period is 120mm. Temperatures range from a maximum monthly average of 28C during January, February and March and a minimum monthly temperature of 3.7°C during June, July and August.

Hail occurs on three days per year and thunderstorms on 32 days per year.

Summer winds predominate from the east and winter winds from the west. The latter are associated with the passing of cold fronts. Days of intensely hot



northerly winds are experienced in winter and are called "Berg winds". They always presage cold fronts. Runaway veld fires can occur during these winds.

2.5 GEOLOGY AND SOILS

The geology of this part of the Eastern Cape comprises sedimentary rocks from the Karoo Supergroup intruded with younger dolerite dykes and sills.

The Karoo Supergroup overlies the Cape Supergroup which is represented by the Natal Group. Overlying the Natal group are the Tillites of the Dwyka formations. Following the Dwyka formation are the series of sedimentary rocks of the Karoo Sequence, namely the Ecca and Beaufort groups.

The geology of the site itself is unknown as a detailed analysis will only be undertaken by the engineers once the development is approved.

2.6 FLORA

The flora along the route is degraded. A few indigenous grass species occur in patches and along the drainage channels. Similarly, very few indigenous tree and shrub species occur other than *Acacia karoo*. A number of aggressive alien invasive species occur within the site boundaries and is usually indicative of disturbed land and poor agricultural practices. An aggressive alien eradication programme needs to be implemented at the same time as work is initiated on the route.

Along the route there are three biomes viz. *Subarid Thorn Bushveld* which represents the Savanna Biome, *South-eastern Mountain Grassland* which is representative of Grassland Biome and finally *Eastern Mixed Nama Karoo* which represent the Nama Karoo biome.

2.6.1 Key Environmental Parameters

The Sub-arid Thorn Bushveld is managed and subjected to fire and grazing as the ecological processes operating within this biome. This is a summer rainfall grassland which is invaded by Sweet Thorn *Acacia karoo*.

The South-eastern Mountain Grassland Biome is a sweet to mixed grassland type which is important for stock land as it is suitable for winter grazing. However, injudicious selective grazing can convert it to sourveld or it can result in the invasion of Karroid or Fynbos elements.

The Eastern Mixed Nama Karoo biome is controlled in the north east region by fire which shapes the communities within this biome. It is here where the highest rainfall of all the Karoo types occurs and is thus ecotonal to grasslands. As a result it is relatively sensitive to grazing pressures and depending on stocking density and rainfall conditions may resemble either grassland or karoo.

The three biomes mentioned are detailed as follows:



SUB ARID THORN BUSHVELD (Savanna Biome)

Locality and Physical Geography

Found in the relatively low-lying valleys in the drainage basin of the White and Black Kei Rivers in the Eastern Cape. Acocks considered the area to be Dry *Cymbopogon-Themeda* Veld, invaded by Sweet Thorn *Acacia Karroo*, and a seral stage to Valley Bushveld. Those grasslands which have been invaded, and are now recognised as savanna, occur along the upper Kei Valley around Queenstown, Cathcart and Tarkastad, and on undulating country at the foot of the mountains, in a broad band below the Amatola-Winterberg escarpment, in the vicinity of Somerset East, Bedford and Alice. These valleys are, however, similar to those dominated by *Acacia karroo*, which occur northwards into KwaZulu-Natal.

Climate

Rainfall is 500 to 600 mm per year, occurring in summer. Temperatures vary between extremes of -8°C and 40°C, with an average of 17°C

Geology and Soil

Clayey loam soil derived from shale, mudstone and sandstone of the Beaufort Group of the Karoo Sequence.

Vegetation

Sweet Thorn *Acacia karoo* bush clumps or individuals characterise this type, but the grass layer mostly remains intact, except where severely overgrazed. The most prominent grass species include Redgrass *Themeda triandra*, Bushveld Turpentine grass *Cymbopogon plurinodis*, Weeping Lovegrass *Eragrostis curvula*, *Sporobolus fimbriatus*, *Heteropogon contortus*, *Digitaria eriantha* and *Eustachys paspaloides*.

Key Environmental Parameters

Fire and grazing are ecological processes within this vegetation type. This is a summer rainfall grassland which is invaded by Sweet Thorn *Acacia karroo*.

Economic Uses

Mainly grazing.

Conservation Status

Poorly conserved, mainly in the Ciskei region.

SOUTH-EASTERN MOUNTAIN GRASSLEND (Grassland Biome)

Locality and Physical Geography

The mixed grassland type is found on the upland of the Karoo and inland margins of the Great Escarpment of Eastern Cape in the Barkley East-Steynsburg and Cradock Middelburg areas. Altitude varies from 1 350 to 2 150 m.

Climate

Rainfall typically range from 350 to 600 mm per year, but reaches 1 900 mm at the highest altitudes. Temperatures vary form -13°C to 40°C, with an average of 15°C. During winter severe frosts occur, but little snow falls.

Geology and Soils

Volcanic soils of the Stormberg Plateau and doleritic peaty soils predominate, with some sandstone. Soils are shallow and often rocky.

events, occurs within this vegetation type. Common shrubs include Bitterkaroo *Pentzia incana*, Kapokbush *Eriosephalus ericoides*, Thornkapok *E. spinescens* and *Hermannia spp.*, while grasses, such as *Aristida spp.*, *Eragrostis spp.*, and Redgrass *Themeda triandra*, may dominate the landscape after good summer rains, especially in the north-east. Trees are not abundant, except along the dry river beds where Sweet Thorn *Acacia karroo* is a common element. This type has the highest cover of herbs of all the Nama Karoo types, as well as numerous geophytes.

Key Environmental Parameters

The north-east region of Eastern Mixed Nama Karoo is the only Karoo type in which fire is important in shaping the communities. This type has the highest rainfall of all the Karoo types and is thus ecotonal to grassland. As a result it is relatively sensitive to grazing pressure and, depending on stocking density and rainfall conditions, may resemble either grassland or Karoo.

Economic Uses

Although the wettest Karoo type, it is still too dry for crop production. However, this is the prime sheep and goat grazing area, producing much wool and meat. Irrigation along the Orange River is important – some of the biggest dams on the Orange River occur in this vegetation type. This vegetation type contains the agricultural research station at Carnarvon and is the best-researched Karoo type with regard to small stock farming potential.

Conservation Status

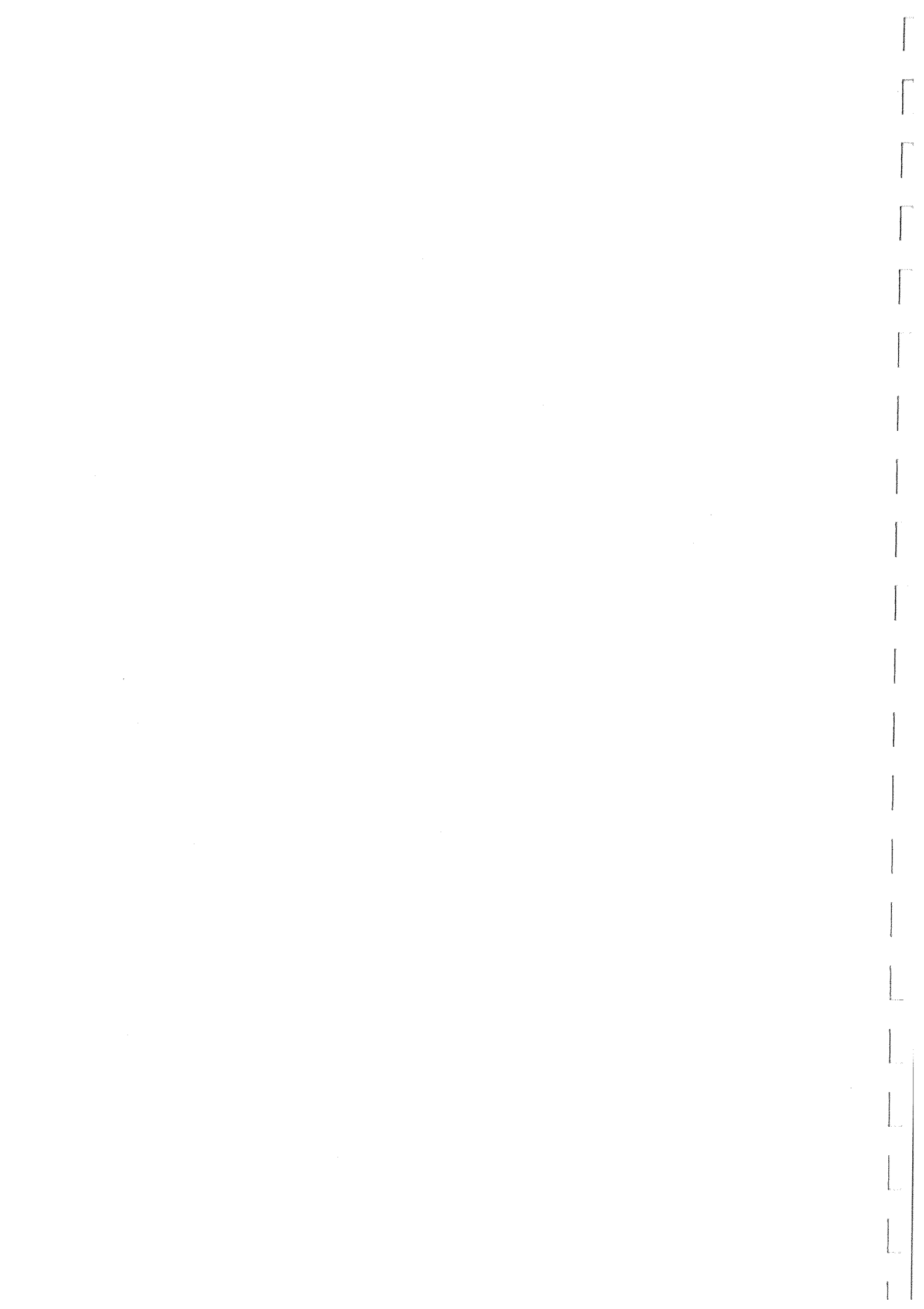
Poorly conserved – most of the conservation areas are immediately around the major dams. Acocks considered this the most degraded of all the vegetation types in South Africa. This is where all the classical research on desertification and Karoo encroachments has been undertaken. Although there is much support for Acock's theory on Karoo encroachment due to overgrazing, some scientists maintain that this "invasion" is determined by rainfall events and that drought periods result in an increase in Karoo elements. This process is reversed during wet cycles in which the grasses again dominate. However, overgrazing does encourage Karoo encroachment and it is important that stocking densities should be maintained at the carrying capacity of the vegetation as determined by its rainfall at the time.

2.6.2 Rare and Endangered Species

There are no rare and endangered species along the route.

2.7 CULTURAL AND HISTORICAL ARTEFACTS

There are no cultural and historical artefacts along the route or within the road reserve. A full Heritage Impact Assessment (HIA) has been conducted for the materials components of the project i.e. borrow pits, spoil sites and the hard rock source. It is attached as a specialist report and the details of the cultural artefacts located are contained within this report.



C HAPTER THREE : INFRASTRUCTURE

3.1 INTRODUCTION

Whatever characteristics, attributes, qualities and potential a site may offer for development these cannot be realised without a supporting infrastructure of services such as access roads, water supply, electricity, storm water, sewage, solid waste disposal, **fire protection, emergency services** and telecommunications. Additional factors influencing the proposed development are faunal, floral, historical and cultural elements, aesthetics and visual considerations as well as orientation to the sun, wind and rain and the geology and soils of the area.

3.2 ROADS

As mentioned earlier, approximate 60 km of the R61 will be refurbished as part of a special maintenance programme. The material will be sourced from existing borrow pits and a possible new hard rock source if the commercial sources cannot meet the COLTO specifications for road surfacing material. This report will be submitted separately to the Department of Mineral and Energy Affairs. All works will take place within the existing road reserve. An exception may be the upgrading and expansion of bridges along the route. This will depend upon design parameters. If additional land is required for the expansion of the bridges the land will be acquired through the legal system and the land owners will be compensated accordingly.

The road will be refurbished in phases starting with the areas most in need of attention and concluding with the areas least in need of repair.

3.3 WATER

Water for construction will be obtained from the Tarkastad and Queenstown Municipalities as well as from land owners situated adjacent to the road. The necessary written permission will be required from the land owners before any water is abstracted.

3.4 SOLID WASTE DISPOSAL

Solid waste disposal will be provided for by the contractor and all construction waste will be disposed of at a registered disposal site.

Construction waste from the road will be used to fill in any erosion dongas or other eroded areas after permission from the land owner is obtained.

Vegetative material removed within the road reserve will be used to assist rehabilitation at borrow pits, spoil sites, hard rock source and eroded areas.

3.5 SEWAGE

Toilet facilities must be provided for the construction team. These portable toilets must be placed within 300m of the active working site. They must be serviced on a weekly basis. The disposal of the sewage may only take place at an operational designated sewage treatment works. No sewage may be disposed of into water courses or streams or into the veld.

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3.6 TELECOMMUNICATIONS

Telecommunications will either be provided through Telkom if they install a network or by cell phone as the site has signal coverage of all three networks at present.

3.7 STORM WATER

Storm water is collected through an earth lined V-drain system with appropriately located catch pits and discharged through a network of pipe culverts of varying diameters into the surrounding veld.

Currently the storm water channels are blocked, choked with vegetation and silt or the pipe culverts are broken or silted up and do not function as intended. Consequently the area is inundated with overflow from the storm water channels and the road is showing signs of water logging and potholing.

It is the intention of this project to refurbish, reinstate and increase the length of storm water channels. The pipe culverts will be opened and the discharge point for the collected storm water will be designed with energy dissipaters to ensure that no erosion occurs at the discharge point.

It is anticipated that the labour force for the project will be sourced from the local communities alongside the road and that they will be trained to implement ongoing maintenance.

3.8 FIRE

It is imperative for the contractor to be made aware of the problems associated with fire hazards in the area. There is no fire fighting equipment available. The grass is tall and dry and the contractor and his work force need to ensure that they exercise the precautionary principle when cooking.

3.9 SITE CAMP

No information was available at the time of compiling this report regarding the location of the construction camp site. However, the camp site will probably be located within either of the two settlements as the bulk of the labour force will be drawn from these settlements alongside the route.

3.10 GENERAL SECURITY

The camp site will be fenced and, if necessary, a PX container will be brought to site in which to store materials required for the project.



C **HAPTER FOUR : POTENTIAL AND CONDITIONS FOR DEVELOPMENT**

4.1 INTRODUCTION

Any development will impact upon the environment. Nonetheless, with well appointed and viable development sensitive design and holistic and sustainable planning, the impact can be substantially reduced. In the case of the proposed development a holistic approach is envisaged in order to ensure that the impact on the environment is minimised, while simultaneously providing development potential for the area.

To this end the viability of any development will affect the extent to which the developer is willing, or able, to accede to environmental constraints. It goes without saying that the developer will be interested in the viability of the proposed project, but it is also, from an environmental perspective, essential for the Tarkastad and Queenstown municipalities as well as SANRAL to be satisfied that the proposed development is sustainable and viable.

4.2 EARLY PLANNING HISTORY

There is no early history available for the route. However, it can be assumed that much of the infrastructure was established post 1970 but poorly maintained. Consequently the route and its associated infrastructure are in a state of disrepair and the commuters are expressing their dissatisfaction with the state of affairs.

4.3 TOPOGRAPHY

The route traverses a fairly flat section of the Midlands with gentle undulations where it passes through small hills. The vegetation has been described in section 3 but is mainly grassland with odd patches of trees and shrubs. It may be classified as rural/pastoral.

4.4 SLOPE

Road works will be confined to within the road reserve and on occasion heavy machinery will be present due to the specific requirements on site e.g. digging trenches and digging culverts.

There are no steep slopes along the route except in areas where there are minor cuttings. Here remedial storm water management strategies will be implemented and additional storm water containment measures will be constructed if required.

4.5 PHYSICAL CONSTRAINTS UPON THE DEVELOPMENT

There are no physical constraints upon the proposed refurbishment of the route.

4.6 ENVIRONMENTAL IMPACT

Any development will impact upon the environment. The purpose of this report is to set out recommendations to minimise and contain whatever impacts result from the proposed development. The following recommendations contained in this chapter are framed with this in mind. Primarily, the restriction of the development to pre-selected route sites and clearly delimited, needs to be enforced. In order to further minimise the environmental impact the following potential problem area are highlighted and mitigating measures are suggested.



4.6.1 Construction Sites

All construction work, including the stockpiling of materials, labourers toilets etc. should be contained within a predetermined and clearly defined site area to be indicated by the engineer and approved by the Environmental Consultant. Particular care should be taken not to allow construction waste to be discarded into the adjacent vegetation or the abutting land owner's properties.

All road works will be confined to the road reserve. In instances where work has to take place outside the road reserve the area will be clearly demarcated after written permission has been obtained from the land owners.

4.6.2 Roads and Hardened Surfaces

It is envisaged that road construction will be sensitively handled with the road design and alignment acknowledging and deferring to the natural features such as slopes. Attention needs to be given to the selection of surface and kerbing materials where required such as at the entrances to Tarkastad and Queenstown. Solutions for the handling of storm water run-off will be given particular attention as the route refurbishment proceeds, in order to ensure storm water does not back up and over top onto the road.

4.6.3 Construction Details

The separate EMP report sets out the methods and mitigating measures to ensure that the construction activities are minimised.

4.6.4 Storm water and other run-off

The storm water aspects have been addressed in section 3.7.

4.6.5 Sewage

The treatment and disposal of sewage will be as stated under section 3.5

4.6.6 Telecommunications and GPO

There is an excellent telecommunication network in the area. The three cellular services are active in the area and their signals are strong along the route.

4.6.7 Water

The proposed refurbishment of route R61 will be supplied with water as stated under Section 3.3 unless other arrangements are made due to the prevailing drought conditions currently experienced in the area.

4.6.8 General Security

Refer to 3.10

4.6.9 Timeframe for the Development

The development should proceed according to a specific programme which should be stipulated by the client in order to ensure compliance with the environmental legislation. This will allow for control and regular monitoring. It should be a requirement, in the conditions of approval, for the programme of the development to be stipulated.

4.6.10 Flood Lines

\ The route is situated above any reasonably expected flood line.



4.6.11 Alien Vegetation

Some aggressive alien species are present along the route. However the abutting vacant land is inundated with alien vegetation which requires urgent management.

4.6.12 Noise Levels

Noise generated by the passing traffic will not have an effect on the townships.

4.6.13 Working Hours

Working hours will be from 07:00 to 17:00 during week days and 07:00 to 13:00 on Saturdays. There will be no work on Sundays. Should blasting be required the public will be advised through the media and through large notice boards. Surrounding communities will be informed by the ward councillors and other methods that will be set up through the Public Liaison Committee (PLC)



C HAPTER FIVE : RECOMMENDATIONS

5.1 INTRODUCTION

In making the recommendations for this report, careful thought was given to the implementation and refurbishment of existing national infrastructure to the advantage of commuters. Accordingly, the following recommendations are made:

- Permission to proceed with the proposed refurbishment of the R61 route should be granted as the route is rapidly failing and in urgent need of special maintenance and refurbishment.
- The infrastructure that is to be refurbished will be existing infrastructure but limited new infrastructure will be put in place in order to consolidate and bring the route into line with national standards.
- The cleaning of the existing drainage routes and small streams will enhance the aesthetics of the area. There should be minimal impact on the streams as there are sufficient set back distances from the wetlands and streams in order to minimise the impact.
- The storm water management strategies will assist in minimising erosion and assist in flushing the stream and small drainage routes. The entire route will be more sustainable and environmentally compliant and extend the design horizon for the route.
- Some finance should be set aside to green the area. It is an extremely harsh area and the aesthetics and micro-climate will be enhanced if some trees were planted within the rest sites and
- Along those areas where ponding needs to be reduced.
- Waste bins should be provided at the rest sites as well as eating and seating facilities. A possibility of utilising stone masonry skills existing in the area should be investigated to construct these facilities and to encourage this skill.



C HAPTER SIX : ACKNOWLEDGEMENTS

I wish to thank the following persons who made input into the document and helped to bring it to fruition:

Ms Anga Yaphi from DWF&EA Queenstown Office who undertook a site visit with her colleagues Mr J Booysen and S Muller and discussed the project on site along the route.

Mr C Jones from GOBA Consulting Engineers and Project Managers who gave unstinting support throughout the project.

Mr J Booysen from GOBA Consulting Engineers and Project Managers who answered a million queries especially on the site visit to the route and assisted the government officials in understanding the complexities of constructing a road.

Mr C Bradley from GOBA Consulting Engineers and Project Managers who solved all the material problems.

Dr M Noah from SANRAL who assisted so graciously with Public Participation and Social Issues.

Mrs R van Nieuwenhuizen from Coastal & Resource Management

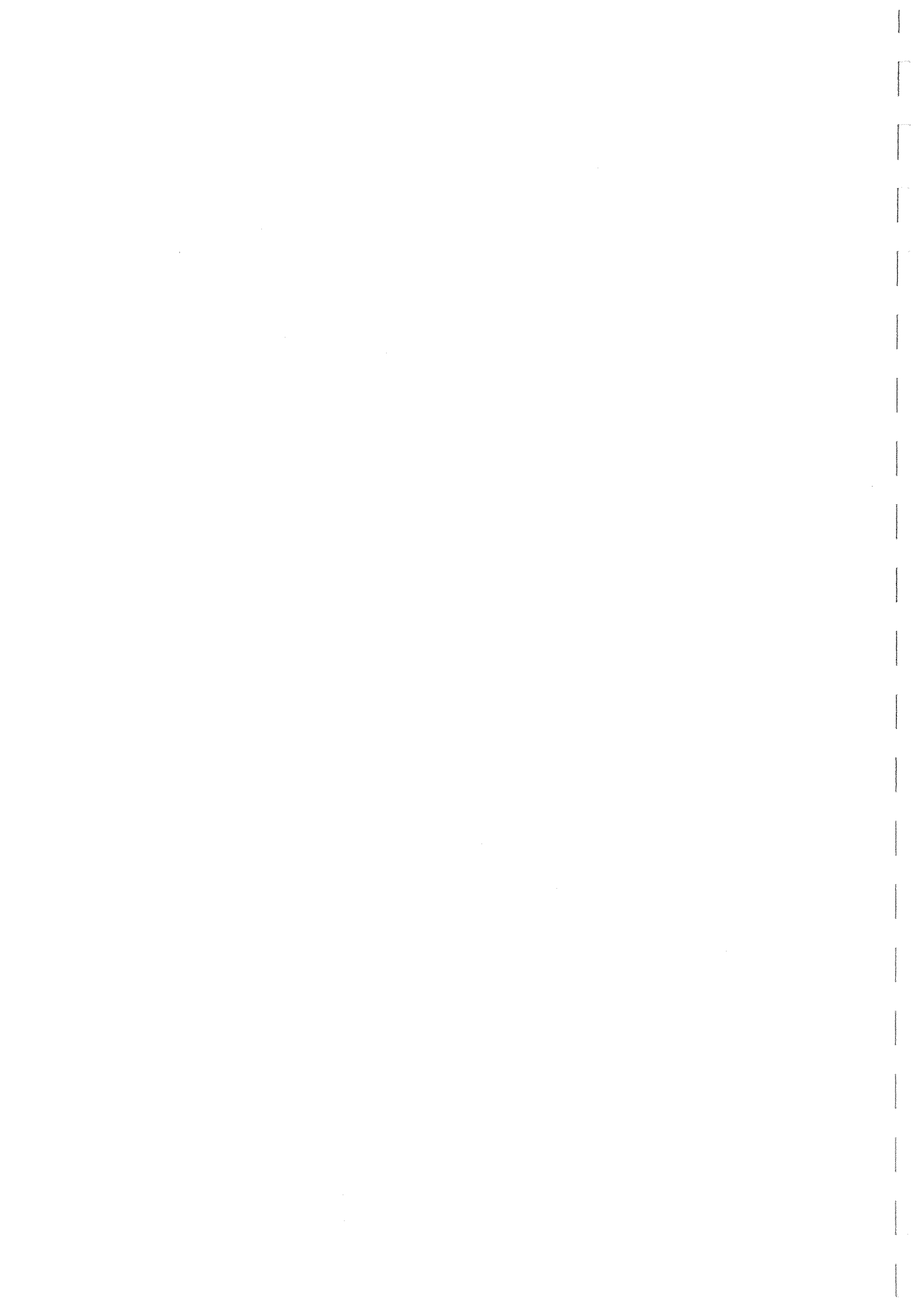


C HAPTER SEVEN : LITERATURE CITED

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APPENDICES



APPENDIX ONE

Details relating to the R61 being gazetted as a National Road



No. 546

THE SOUTH AFRICAN NATIONAL ROAD AGENCY LIMITED**DECLARATION OF EXISTING PROVINCIAL ROADS - (I) TRUNK ROAD 40 SECTION 1, (II) TRUNK ROAD 49 SECTIONS 1 AND 2 (III) TRUNK ROAD 18 SECTION 1 AND TRUNK ROAD 61 AS NATIONAL ROAD R61 - DISTRICT OF GRAAFF-REINET, CRADOCK, TARKASTAD, QUEENSTOWN, COFIMVABA, TSOMO, ENGCOCO AND UMTATA**

By virtue of section 40(1)(b) of the South African National Road Agency Limited and National Roads Act 1998 (Act No. 7 of 1998), I hereby declare that (I) the section of Trunk Road 40 section 1, also known as R61, from the intersection with route N9 up to the intersection with National Road N10 as described in Annexure hereto, (II) the section of Trunk Road 49 sections 1 and 2, also known as R61, from the intersection with National Road N10 up to the intersection with National Road N6 as described in Annexure hereto and (III) the section of Trunk Road 18 Section 1 and Trunk Road 61 from the intersection with National Road N6 to Umtata as described in Annexure hereto to be a National Road.

(National Road R61; Betthesdaweg to Umtata)


Abdullah M Omar, MP
Minister of Transport





environmental affairs

Department
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Fedeura Building · 316 Pretorius Street · PRETORIA
Tel (+ 27 12) 310 3911 · Fax (+ 2712) 322 2682

FAX COVER SHEET

DATE :

08 Jul. 2010

TO :	Mr Mpati Makola
ORGANISATION :	SANRAL
FAX :	(012) 362 2101
FROM :	Mr Dumisane Mthembu
TEL :	(012) 310 3230
FAX :	(012) 320 6014
NO. PAGES :	19 (Include cover page)
SUBJECT :	

Dear Mr Makola

Please receive herein the attached Documents for your attention.

Regards,



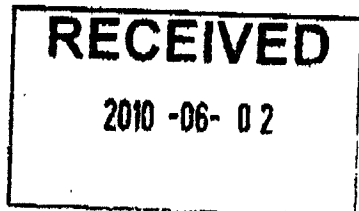
Head Office
Dikwela Place, 1204 Park Street, Hatfield, Pretoria
PO Box 415, Pretoria, South Africa, 0001
Tel +27 (0) 12 426 6000 Fax +27 (0) 12 362 2101/10/17
Offices in Cape Town, Menlyn - Pretoria, Pietermaritzburg, Port Elizabeth

Reference: DEA#412510
Date: 13 April 2010
Email: silva@nra.co.za

Fax Number: +27 (0) 12 362 2101
Direct Line: +27 (0) 12 426 6001
Website: www.nra.co.za

*Creating
wealth through
infrastructure*

Acting Director General
Mr Ishaam Abader
Department: Environmental Affairs
P O Box X477
PRETORIA
0001



Dear Mr Abader

MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN THE DEPARTMENT OF ENVIRONMENTAL AFFAIRS (DEA) AND THE SOUTH AFRICAN NATIONAL ROADS AGENCY LIMITED (SANRAL)

Thank you for your letter reference 12/12/20/271/10/1(53118) dated 26 March 2010, to which was attached the Memorandum of Understanding.

We are pleased to inform you that we find your recommendation as to who should be the signatory to the MOU and as to who has to deal with paragraph 9.6 from your Department acceptable.

We have signed the MOU and attach it herewith for the signature of Ms Yawitch. Please return a signed copy for our records...

Once again thank you for your cooperation and look forward to expediting the delivery of infrastructure to South Africa.

Yours sincerely

for Nazir Alli
Encls.

c.c. Mr D Mthembu: By Hand
For your information and action, please.

MEMORANDUM OF UNDERSTANDING

BETWEEN THE



**SOUTH AFRICAN NATIONAL ROADS AGENCY LIMITED
(SANRAL)**

AND



environmental affairs

**Department
Environmental Affairs
REPUBLIC OF SOUTH AFRICA**

**DEPARTMENT OF ENVIRONMENTAL AFFAIRS
(DEA)**

ON

**THE IMPLEMENTATION OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA)
MATTERS PERTAINING TO SANRAL'S MANDATE**

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1. Definitions

For the purpose of this Agreement, unless the context indicates otherwise, the following definitions are set out for the terms indicated -

1. "This Agreement" means the Agreement together with all schedules and appendices attached hereto or referred to herein which schedules and appendices shall be signed and dated by the Parties hereto:
 - 1.1 "DDG" means the Deputy Director-General: Department of Environmental Affairs: Branch Environmental Quality and Protection;
 - 1.2 "CEO: SANRAL" means the Chief Executive Officer: South African National Roads Agency Limited;
 - 1.3 "Chief Director: EIM" means the Chief Director: Environmental Impact Management;
 - 1.4 "NEMA" means the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended;
 - 1.5 "EIA" means Environmental Impact Assessment;
 - 1.6 "SANRAL and NRA" means South African National Roads Agency Limited and National Roads Act, 1998 (Act No. 7 of 1998);
 - 1.7 "Co-operative Committee" means the Joint Co-operative Committee represented by delegates from the Parties;
 - 1.8 "the Department" means the Department of Environmental Affairs, Branch: Environmental Quality and Protection;
 - 1.9 "SANRAL" means the South African National Roads

- Agency Limited;
 means the Department and SANRAL;
- 1.10 "the Parties"
- 1.11 "CEO" means the Chief Executive Officer of SANRAL;
- 1.12 "Signature Date" means the date on which the last signing party signs this Agreement.

2. Purpose of the Agreement

2.1 The aims and objectives of this Agreement are -

- (a) to provide an administrative framework which ensures a coherent and consistent approach to all aspects concerning road infrastructure development and environmental protection with regard to environmental impact assessment;
- (b) to establish the structure and procedure necessary to gain a common understanding of the programmes and policies of each party as they pertain to road infrastructure development and environmental protection; and
- (c) to minimize expenditure and delays by providing an overview of SANRAL's project types and environmental authorization and approval requirements by DEA in Table 1. Where there are combinations of SANRAL's project types which fall outside the scope described in table 1, requirements would be clarified in consultation with DEA.

3. Principles and commitments

- 3.1 This Agreement is an administrative arrangement intended as a convenience to officials of SANRAL and DEA to better understand their functional interaction relating to their public service and responsibilities.
- 3.2 Effective inter-organizational cooperation leads to certainty and predictability of government actions, and promotes public confidence.
- 3.3 Each party commits at the highest possible level to implement agreed upon activities to help successfully meet the purposes of this Agreement.

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 P. S. S.

- 3.4 Each party commits at the highest possible level to implement mechanisms of cooperation described in clause 6 hereunder.
- 3.5 Beyond the terms specified in this Agreement, SANRAL and DEA commit to co-operate and communicate openly and continuously with each other at appropriate official level on any and all matters relating to the development and management of the national road network and environmental protection.
- 3.6 The DEA and SANRAL commit to the responsible and effective administration of their shared responsibilities. Both undertake to provide timely notification and appropriate consultation whenever the activities of one organization directly affect the activities and responsibilities of the other.
- 3.7 The Parties will convene on a regular basis to discuss issues within the scope of and related to the purposes of this Agreement.
- 3.8 The Parties will co-operate on an agreed skills exchange programme between the Parties, where required.
4. **Co-operative processes and mechanisms in terms of relevant sections of legislation**

	Section	Description	Notes	Co-operative process and mechanisms
National Environmental Management Act, 1998 (as amended)				
a.	NEMA section 2	Principles of environmental management that are binding on all the Parties	SANRAL is bound to environmental management of all their activities and to adhere to the principles of NEMA	Table 1 stipulates EIA requirements related to SANRAL road construction activities
b.	NEMA section 24(10)	The use of norms and standards to manage environmental impacts	This provision allows for the development or adoption of norms & standards for listed activities or for part or combination of activities	The development of road infrastructure related norms & standards to improve efficiency of related EIA processes
c.	NEMA section 24 C	Procedure for identifying the competent authority in	SANRAL is a public entity of the	The development of standard operating

R P E S

		respect of environmental authorization	<p>Department of Transport performing an exclusive competence of the national sphere of government</p> <p>DEA is the competent authority responsible for granting environmental authorizations in respect of SANRAL's activities</p>	procedures ensuring provincial and the Dept of Mining participation in SANRAL applications
d.	NEMA section 24K	Provision of agreements aimed at prevention of duplication of regulatory requirements	<p>This provision is of relevance to the DEA - SANRAL responsibilities insofar as tolling is concerned</p> <p>DEA is the competent authority for SANRAL applications for environmental authorisations</p> <p>Environmental impact assessment processes have to consider socio-economic considerations associated with the listed activity</p> <p>SANRAL is the competent authority for designation of a national road as a toll road. The "Intent to toll process" has to consider socio-economic impacts of tolling</p>	Agreement to section 24K of NEMA
e.	Government Notice R. 386	The construction of a road that is wider than 4 metres	Written authorisation is required from DEA	The development and implementation of

J. G. S.

	(NEMA) List of activities and competent authorities identified in terms of sections 24 and 24D	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 meters long	(as defined in GN No R385 of 21 April 2006)(EIA Regs), prior to the undertaking of the said activity SANRAL must appointing an environmental assessment practitioner to assist with the investigation and administration of an application	Standard Operating Procedures for the efficient implementation of the Basic Assessment process prescribed in Government Notice R. 385 of NEMA (EIA Regs)
f.	Activity 5: Government Notice R. 387 (NEMA) List of activities and competent authorities identified in terms of sections 24 and 24D	The route determination of roads and design of associated physical infrastructure, including roads that have not yet been built for which routes have been determined before the publication of Government Notice R. 387 and which has not been authorised by a competent authority in terms of the EIA Regs, where – (i) it is a national road as defined in section 40 of the SANRAL and NRA; (ii) it is a road administered by a provincial authority; (iii) the road reserve is wider than 30 metres; or (iv) the road will cater for more than one lane of traffic in both directions		The development and implementation of Standard Operating procedures for the efficient implementation of Scoping and EIA process as prescribed in the EIA Regs
g.	SANRAL and NRA section 27 (4)(i)(ii)	Tolling: (i) Approximate Indication of the position of the toll plaza (ii) Invitation of Interested persons to comment and make presentations on the proposed declaration and position of the toll plaza within 30 days	SANRAL notifies DEA about the Intent to toll and requests written comments	NEMA 24K Agreement (see d. above) DEA submits written comments to SANRAL as an interested party

5. Managing the Agreement

The Parties undertake to establish the following institutional mechanisms, including their composition and functions, for the effective management and implementation of this Agreement:

5.1 The Cooperative Committee is established to provide the following functions:

- (a) Oversight of this Agreement, including periodic review and inter-organizational issue resolution.
- (b) Development of consensus between the Parties on a unified approach to environmental legislative and regulatory matters of mutual concern.
- (c) Review, approval, and prioritizing of regulatory initiatives of mutual concern with respect to NEMA, EIA Regulations and SANRAL and NRA.
- (d) Any other issues related to the relationship between the Parties that pertain to road development and environmental protection.

5.2 The Co-operative Committee shall meet once every quarter.

5.3 The Co-operative Committee shall comprise the following members:

- (a) DEA Chief Director: Environmental Impact Management (Co-Chair);
- (b) SANRAL: CEO or his duly authorised representative (Co-Chair); and
- (c) Equal number of co-opted members from DEA and SANRAL.

5.4 The secretariat function of the Co-operative Committee shall be provided by the DEA.

5.5 The development of periodic review of specific terms of reference of the Co-operative Committee is the responsibility of the Co-Chairs indicated in 5.3 above.

6. Review of the Agreement

6.1 The Co-operative Committee is responsible for undertaking a review of this Agreement biennially. The objective of the review is to assess the effectiveness of the mechanisms

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provided in this Agreement towards ensuring a coherent and consistent management of all aspects regarding road development and environmental authorisation.

6.2 It is the responsibility of the Co-operative Committee to ensure that measurable criteria are established against which the effectiveness of the Agreement can be assessed.

6.3 Any recommendations requiring amendments to this Agreement shall be in accordance with the provisions of clause 14 hereunder.

7. **Good Faith and Reasonableness**

7.1 In their dealings with each other for purposes of the Agreement, the Parties:

- (a) undertake to act in good faith and reasonably; and
- (b) warrant that they shall not do anything or shall refrain from doing anything that might prejudice or detract from the rights or obligations of each other.

7.2 This Agreement does not in any way limit any statutory powers and functions of the Parties.

8. **Cancellation / Termination of this Agreement**

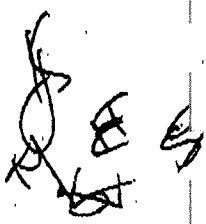
This Agreement may be terminated by the mutual written consent of both Parties.

9. **Dispute Resolution**

Any disagreement or dispute arising between the Parties with regard to Implementation, application, interpretation or breach of this Agreement shall be settled as follows:

9.1 A disagreement or dispute must be initiated in writing.

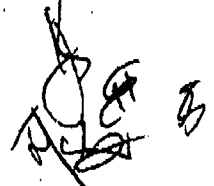
9.2 The Parties must initially make all reasonable efforts to settle any such difference or dispute through consultation and negotiation.



- 9.3 Should either party allege that there has been any non-compliance by the other party, in respect of any of the material terms and conditions of this Agreement, the duly appointed on-site representatives of the Parties must first attempt to resolve the matter amicably.
- 9.4 Should settlement not be achieved in terms of clause 9.3 above, the party alleging non-compliance with this Agreement shall, in writing, advise the other party of its non-compliance.
- 9.5 The party against whom material non-compliance is alleged must respond to the written allegation of the other party within 7 (seven) days of receiving written notification of non-compliance from the other party.
- 9.6 The Parties should convene a meeting within 10 calendar days after the date of the correspondence referred to in paragraph 9.5 above has been received by the particular party.
- 9.7 At the aforesaid meeting, the Parties shall attempt to reach agreement in relation to whether or not any party has failed to comply with any of the material terms and conditions of this Agreement.
- 9.8 If the Parties fail to reach agreement as envisaged in 9.7, a formal intergovernmental dispute may be declared by the aggrieved party in terms of section 41 of the Intergovernmental Relations Framework Act, 2005 (Act No. 13 of 2005).
- 9.9 If a formal Intergovernmental dispute is declared, the procedures in sections 42 to 45 (inclusive) of the Intergovernmental Relations Framework Act shall apply.

10. Confidentiality

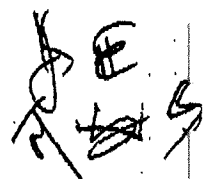
- 10.1 Any Party shall treat information furnished by another Party or another person for purposes of the execution of this Agreement, as confidential.
- 10.2 Subject to this clause, the Party(s) so furnished with information shall not disclose such information to another person without the prior written consent of the other Party and shall take reasonable steps to ensure that such information is not disclosed to another person.

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- 10.3 The Parties agree that this Agreement is not intended to restrict use or disclosure of any portion of such information which:
- (a) is made known to the public through no default by the receiving Party of its obligations under this Agreement;
 - (b) is rightfully received by the Receiving Party from a third party having no obligation of confidentiality to the Disclosing Party;
 - (c) is independently developed by the Receiving Party by persons who did not have access to Confidential Information of the Disclosing Party; or
 - (d) is disclosed by the Receiving Party after receipt of written permission from the disclosing Party.

11. Duration, Execution and Amending the Agreement

- 11.1 This Agreement will commence on the Signature Date and will remain in effect unless terminated by mutual written consent of the Parties.
- 11.2 The agreement together with all its annexures constitutes the whole Agreement between the Parties relating to the subject matter of the Agreement.
- 11.3 There are no other conditions, representations, whether oral or written and whether expressed or implied, applicable to this Agreement, save for those contained in this Agreement.
- 11.4 No amendment, alteration, addition or variation of the Agreement shall be of any force or effect unless reduced to writing and signed by the Parties.
- 11.5 Amendments include updates, the revision of, additions or deletions to this Agreement.
- 11.6 Proposals for amendments to the Agreement may be made to either of the Co-Chairs of the Co-operative Committee, for the Committee's consideration.
- 11.7 Such amendments shall be incorporated into the Agreement, and the Agreement shall be reissued in full as a new version.

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11.8 Neither party shall be entitled without the prior written consent given by the duly authorised official of the other party to cede, delegate or otherwise transfer any of its rights and/or obligations in terms of this Agreement.

11.9 Neither party will have the right, according to this Agreement, to make a supposition to the effect that it is allowed to act as an agent or official of the other party.

12. Indemnity

12.1 The Parties indemnify each other and holds each other harmless from and against any or all liabilities arising from any acts or omissions of the relevant Party, its employees and/or agents and/or appointed researchers arising out of this Agreement.

12.2 SANRAL undertakes to obtain the necessary consent in the event of it making use of the works and rights or any other intellectual property of persons. SANRAL hereby indemnifies the Department against any action or application, including all costs, which might arise out of such breach.

12.3 SANRAL and the appointed officers undertake to use their best endeavours to perform their duties in the execution of their obligations in terms of this Agreement diligently and with due competence, and to render work of the highest standard required by persons of such professions.

13. Domicillium

13.1 The Parties choose the physical addresses set out hereunder as their *domicilia citandi et executandi* for all purposes under this Agreement:

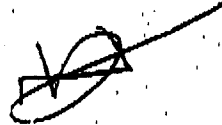
13.1.1 Name of Party: South African National Roads Agency Limited
 Physical Address: Ditsela Place
 1204 Park Street
 Hatfield
 Pretoria

Handwritten signature/initials

Postal address: P.O. Box 415
Pretoria
0001
South Africa

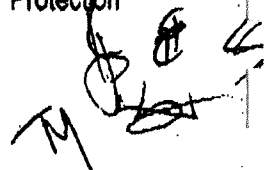
13.1.2 Name of Party: Department of Environmental Affairs
Physical Address: Fedsure Building
Cnr Van der Walt and Pretorius Streets
Pretoria
Postal address: Private Bag X447
Pretoria
0001
South Africa

13.2 Notice of change of address must be given in writing, by the Party concerned and delivered by registered mail to the other Parties.



14. Signatures of the Parties

14.1 This Agreement is hereby signed by Ms Joanne Yawitch of the Department of Environmental Affairs in her capacity as the Deputy Director General: Environmental Quality and Protection



(having been duly authorised thereto) at PRETORIA on this 31ST day of MAY 2009 2009

T. Yankel

DEPUTY DIRECTOR GENERAL: ENVIRONMENTAL QUALITY AND PROTECTION

As Witnesses:

1. 

2. 

14.2. This Agreement is hereby signed by Mr Nazir Alli, in his capacity as the Chief Executive Officer of the South African National Roads Agency Limited (having been duly authorised thereto) at Pretoria on this 12th day of April 2009.

NALLENKE

CHIEF EXECUTIVE OFFICER: SOUTH AFRICAN NATIONAL ROAD AGENCY LIMITED

As Witnesses:

1. 

2. 

TABLE 1: SANRAL'S PROJECT TYPES AND ENVIRONMENTAL AUTHORIZATION AND APPROVAL REQUIREMENTS BY DEA

PROJECT TYPE	MAIN ACTIONS	IMPACTS		MECHANISMS AND PROCEDURES FOR CO-OPERATION
		Biophysical	Socio-economic	
1. ROUTINE MAINTENANCE	<p>A. WORK CONDUCTED ON EXISTING ROAD WITHIN ROAD RESERVE</p> <ul style="list-style-type: none"> • Mowing of grass and eradication of alien weeds • Road repairs including patching (potholes) • Cleaning of drainage canals, channels, conduits, pipes • Clearing refuse and debris from the road reserve • Maintenance of trees and shrubs • Repairs to bridges/road furniture 	<p>No biophysical impacts are normally associated with routine maintenance</p>	<p>Provides sustainable employment opportunities as well as opportunities for entrepreneurial development</p>	<p>The SANRAL does not enter into the EIA process to obtain authorisation as these actions are not covered in terms of the regulations</p>
2. PERIODIC MAINTENANCE	<ul style="list-style-type: none"> • Reseal with stone to safeguard underlying layers of road • Joint seals on concrete pavement • Repairing of traffic signs • Replacement of traffic signs • Replacing guard rails 	<ul style="list-style-type: none"> • Stock piles of sealing stone obtained from commercial sources in road reserve • Storage of bitumen binders • New establishment of site offices 	<ul style="list-style-type: none"> • Limited traffic disruption during construction • Provides employment opportunities for the duration of the Agreement • Economic injection to adjacent communities 	<p>The SANRAL does not enter into the EIA process to obtain authorisation as these actions are not covered in terms of the regulations. The SANRAL proposes a generic EMP for these projects to be compiled by the Agency with input added by the contractor</p>

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 [Signature]
 [Signature]

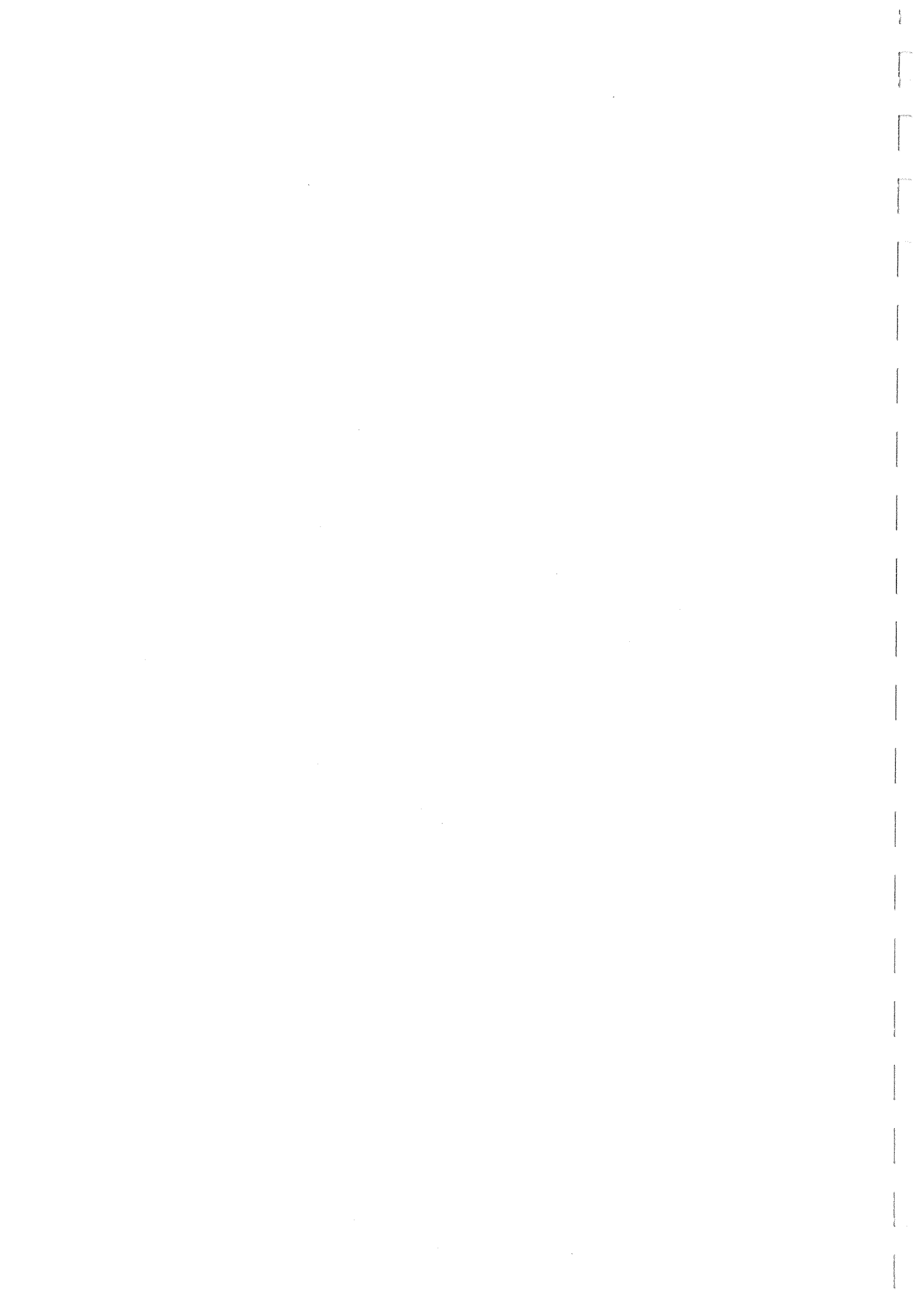
PROJECT TYPE	MAIN ACTIONS	IMPACTS		MECHANISMS AND PROCEDURES FOR CO-OPERATION
		Biophysical	Socio-economic	
3. SPECIAL MAINTENANCE	<ul style="list-style-type: none"> Reworking sections base course material Reseal of road surfaces with asphalt layers Bridge repairs Slope stability On-site mixing of small amounts of asphalt 	<ul style="list-style-type: none"> Similar to periodic maintenance plus the possibility of the use of limited borrow material if material from commercial sources are not available 	<ul style="list-style-type: none"> Limited traffic disruption Provides employment opportunities for the duration of the Agreement Economic injection to adjacent communities 	<p>The SANRAL does not enter into the EIA process to obtain authorisation as these actions are not covered in terms of the regulations. The SANRAL proposes a generic EMP for these projects to be compiled by the Agency with input added by the contractor. Provisions of section 28 of NEMA apply. EMPR's for quarries and borrow pits to be submitted to the Dept of Mining</p>
4. REHABILITATION	<ul style="list-style-type: none"> Reinstating the road with major reworking of pavement layers Adding additional pavement layers 	<ul style="list-style-type: none"> Similar to periodic maintenance but the need for borrow material increase in comparison with special maintenance. Quarry operations might become necessary if commercial quarry sources are not available 	<ul style="list-style-type: none"> Limited traffic disruption Provides employment opportunities for the duration of the Agreement Economic injection to adjacent communities 	<p>The SANRAL does not enter into the EIA process to obtain authorisation as these actions are not covered in terms of the regulations. The SANRAL proposes a generic EMP for these projects to be compiled by the Agency with input added by the contractor. Provisions of section 28 of NEMA apply. EMPR's for quarries and borrow pits to be submitted to the Dept of Mining</p>

PROJECT TYPE	MAIN ACTIONS	IMPACTS		PROPOSAL
		Biophysical	Socio-economic	
5. UPGRADE	<ul style="list-style-type: none"> Increase in carrying capacity within existing road reserve such as dualing of carriage way or the adding of climbing/passing lanes, but excluding shoulders. 	<ul style="list-style-type: none"> Impacts mentioned under rehabilitation but to a larger scale. 	<ul style="list-style-type: none"> Traffic disruption during construction Provides employment opportunities for the duration of the Agreement Economic injection to adjacent communities Higher level of service provided to travelling public 	<p>The SANRAL enters into process for authorisation with short explanation of the project and applies for possible exemption from certain provisions of the EIA Regs. Other activities in the EIA Regulations must also be checked for possible relevance. The SANRAL proposes a standardised EMP for these projects to be compiled by the Agency with input added by the Basic Assessment report and contractor. EMP's for quarries and borrow pits to be submitted to the Dept of Mining</p>
NEW ROADS (GREENFIELDS) AND UPGRADING INCLUDING HORIZONTAL RE-ALIGNMENT	<p>B. WORK EXTENDING BEYOND ROAD RESERVE</p> <ul style="list-style-type: none"> New alignments with associated activities Road structures for crossing of rivers and streams Possible relocation of road 	<ul style="list-style-type: none"> Impacts mentioned under rehabilitation but to a larger scale Biophysical impacts associated with 'lot plazas' weighing bridges <p>Project unique impacts not identifiable that the independent environmental consultant will address in scoping exercise.</p>	<ul style="list-style-type: none"> Project unique impacts not identifiable that the independent environmental consultant will address in scoping exercise Traffic disruption during construction Provides employment opportunities for the duration of the Agreement Economic injection to 	<p>The SANRAL enters into the process to obtain authorisation. An independent environmental consultant will be appointed for the process</p>

			<ul style="list-style-type: none"> adjacent communities, higher level of service provided to traveling public 	
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PROJECT TYPE	MAIN ACTIONS	IMPACTS		PROPOSAL
		Biophysical	Socio-economic	
EMERGENCY WORK AS A RESULT OF NATURAL AND ANTHROPOGENIC DISASTERS SUCH AS FLOODS AND MAJOR ACCIDENTS	<ul style="list-style-type: none"> Re-instating bridges, sections of road, etc. Safety enhancing measures Temporary deviations to accommodate traffic at disaster sites One or more of the other actions above, depending on the scale 	C. EMERGENCY WORK		<p>The SANRAL does not enter into the process to obtain authorization due to the emergency nature of the work. Section 24F(3) may apply</p> <p>The SANRAL proposes a generic EMP for these projects and a project report following restoration work</p>
		<ul style="list-style-type: none"> May be similar to the impacts above Confined to immediate risk area Includes alternative traffic accommodation measures as required 	<ul style="list-style-type: none"> Same as above Restoring integrity of road and/or road infrastructure Restoring safety features 	

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APPENDIX TWO

Public Participation Documentation



MINUTES OF THE PUBLIC PARTICIPATION MEETING FOR THE PROPOSED SPECIAL MAINTENANCE OF THE R61 FROM TARKASTAD TO QUEENSTOWN, EASTERN CAPE HELD ON WEDNESDAY 3 NOVEMBER 2010 AT 11:00 AT THE ZOLA COMMUNITY HALL, NEAR THORNHILL, EASTERN CAPE

ACTION

1. WELCOME, INTRODUCTION AND ATTENDANCE REGISTER

An attendance Register is attached.

Apologies

Mr C Arries SANRAL

Clr Mangcotywa welcomed everyone and opened the meeting with song and prayer. He then apologized to the meeting that he was the only representative present but the other Ward Councillors had to attend to other important matters. He requested that all telephones be switched off.

Dr Mongezi Noah introduced the professional team and the other ward committee member present at the meeting as well as a representative from DBSA who was working with the local municipality

2. ROLE OF SANRAL

Dr Noah explained the purpose of the meeting in Xhosa and then apologized on behalf of the client Mr Clive Arries who could not attend the meeting. Dr Noah briefly explained the role of SANRAL in rehabilitating the road. He furthermore explained that the R61 was now regarded as a National Road.

3. DEVELOPMENTAL PROPOSALS

Ms M Mosia and Mr C Jones from Goba Consulting Engineers gave a short overview presentation of the project and then ran the presentation with questions and answers (See Q's and A's below). The PowerPoint presentation is attached to these minutes.

4. ENVIRONMENTAL CONSTRAINTS AND OPPORTUNITIES

Mrs Muller explained the environmental reasons for holding the meeting and asked two specific questions as Dr Noah had already briefed the audience on the other environmental issues in order to comply with National Legislation. She requested that if any member of the public present at the meeting knows of any graves or heritage sites along or in close proximity (closer than 100m) to the fence line to please indicate this and come and speak to her and Dr Noah after the meeting. She repeated the question and specifically asked that the elderly members of the meeting respond as they would know if any old graves existed close to the fence line.

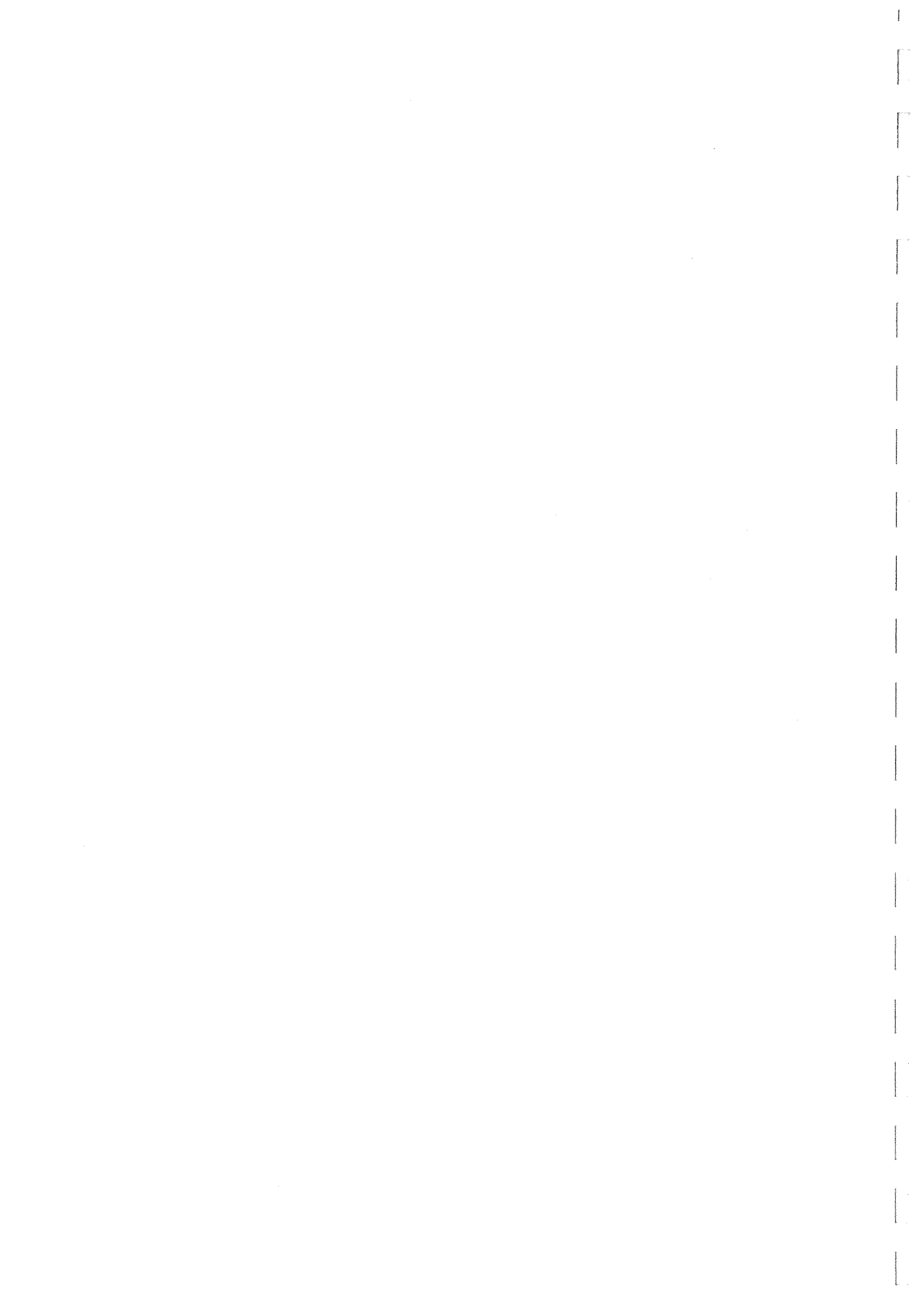
5. DISCUSSION QUESTIONS AND ANSWERS ON THE ENGINEERING ASPECTS

Mrs Muller and Dr Noah opened the floor for questions. The questions were asked in Xhosa, translated into English. The relevant person replied in English and the answer was then translated back to Xhosa.

- Q Ward Committee Member T Buny** expressed appreciation that at last the road was being improved and asked whether there could be any assistance with internal roads.



- A Ms Mosia and C Jones** replied that they would speak to the municipality who were working on the internal roads and see what contribution the SANRAL projects could make.
- Q Ms C Samela** expressed her Appreciation for the anticipated improvement to the roads and requested whether it was possible to construct a pedestrian bridge over the road as there was a school on the opposite side of the community.
- A** No response was forthcoming from the consultant as this would have to be discussed with the client.
- Q T Phip** expressed support for the sentiments given by C Samela above.
- Q P Msanjana** requested improvement to entrance roads as many accidents occurred.
- A Ms Mosia** replied that all entrance roads would be upgraded and therefore improved.
- Q M Sono** requested whether there was a possibility of constructing a shearing shed for the local farmers.
- A Ms Mosia** replied that this was not possible as it was not a road building activity.
- Q N Mpalumini?** Expressed thanks to SANRAL for upgrading the road and requested that the fence line be strong.
- A Ms Mosia** replied that all fences will be upgraded but would need assistance from the community to report any breakages, etc to the local Routine Road Maintenance (RRM) contractor.
- Q Cnr Mangcotywa** again expressed his appreciation to SANRAL for bringing this project to fruition as they had waited a very long time for the project to happen. He stated that the municipality had come up with a plan and has used the money for the proposed internal roads in a different location. He therefore requested a new access onto the R61.
- A C Jones** replied that no new access onto the R61 would be allowed due to safety and design factors.
- Q M Sono** asked if a fence line is broken who would be responsible for repairing the fence line and what would be done to ensure the safety of the people and their stock. He also asked what would happen at the borrow pits to ensure the safety of the community.
- A Ms Mosia and C Jones** replied that they would appreciate assistance from the community who should contact the RRM whose contact number would be made available to them, the minute a fencing problem was noticed to ensure everyone's safety is maintained.
- It was also stated by the consultants that all borrow pits would be fenced with a lockable gate before any contractual work is initiated.
- Q T Phip** discussed the problem with lack of water.
- A Mrs Muller** replied that water was not a SANRAL competency and they would not



get involved in any matters relating to water.

- Q O Gurista ?** indicated that information was available on graves and heritage sites and would speak to Dr Mongezi at the conclusion of the meeting.
- Q M Mangcotywa** asked whether it would not be possible to clean out the silted up dams whilst there was heavy machinery on site.
- A Mrs Muller** replied that the silt in the dams was fertile land and wanted to know who would be the beneficiary of this silt. Furthermore she indicated that on other projects where silt had to be disposed of the communities squabbled about who would be the beneficiary. She indicated that this matter would be raised and discussed with SANRAL but once again, this was not SANRAL's competency. Silt removal and spoiling of the same needs specialist input and the community should maybe speak to the representative from DBSA.
- Q S Tamele?** Raised the issue that the water pipelines crossed the R61 and if they were broken the community would have no water. To whom should this information be conveyed and how could the community be ensured that their water supply would be continuous.
- A Mrs Muller** replied that this was not a heritage issue but an engineering issue and she passed on this information to the engineers who would GPS the location of these pipelines and this would ensure that there would be a continuous water supply to the communities.
- Q O Gurista ?** came forward to discuss the heritage aspect but again the concern raised was that water from the pump stations would be cut off if the old pipes were damaged or broken during the road refurbishment.
- A Mrs Muller** replied and thanked O Gurista? But aid that this matter would be addressed by the engineers to ensure a continuous water supply to the community.

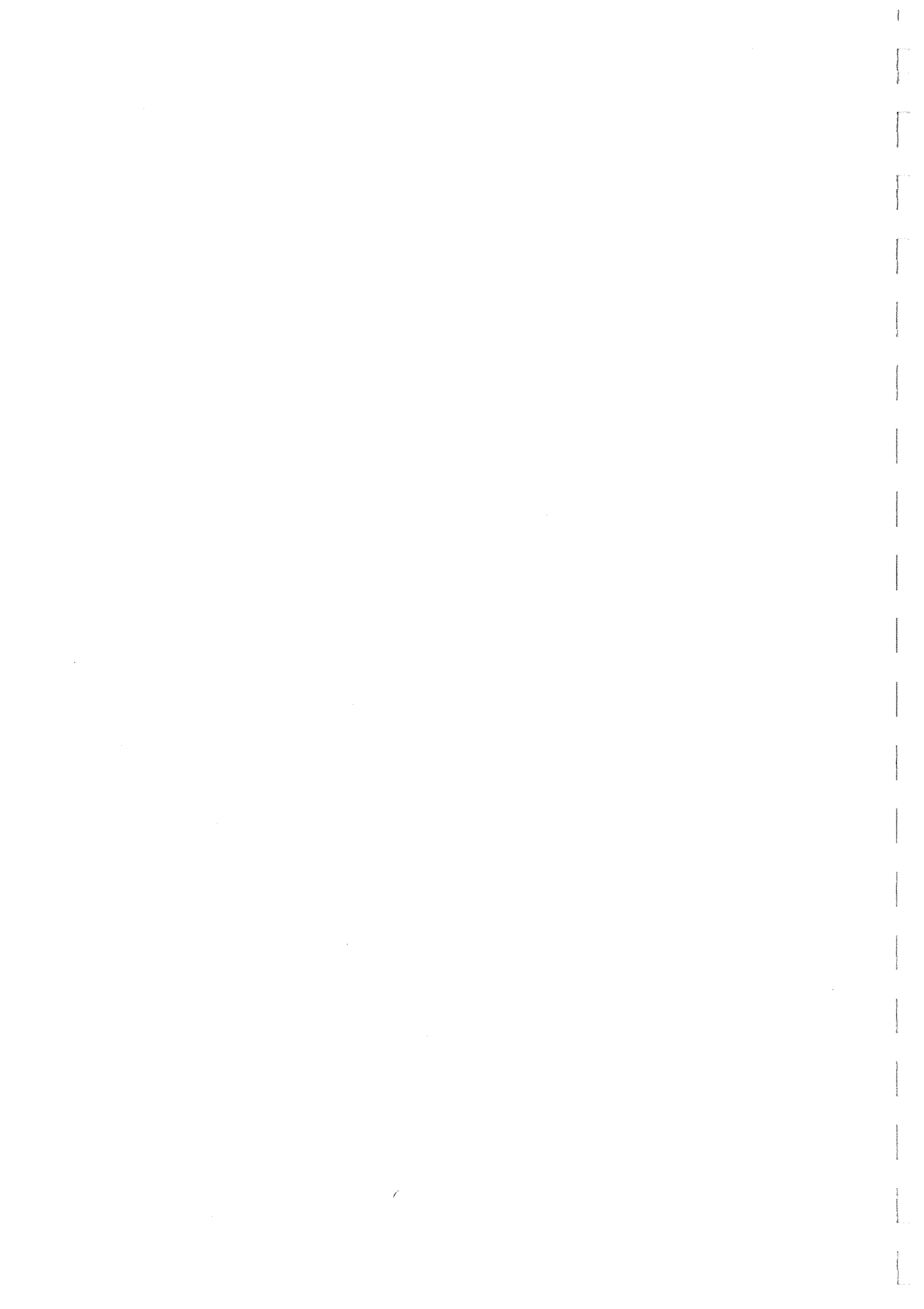
6. WAY FORWARD

Mrs Muller then explained the way forward. She asked the public meeting representatives where they would like to have the minutes and the report delivered. The floor responded that they would appreciate it if copies of the minutes could be given to the Ward Councilor and Ward Representative... This was agreed and the minutes and reports would be placed in the local authority offices at the Tsolwana Municipality in Tarkastad for their collection. It was agreed that Mrs Muller would contact Clr Mangcotywa before delivering the minutes so tht he could notify the other members of the imminent delivery.

7. CLOSURE







Clr Mangcotywa thanked the professional team and especially Dr Noah for taking the trouble to inform the community of the proposed project. The meeting was closed with prayer at 13:00.

SIGNED..... DATE.....



**National Route 61 Section 4
Public Participation Meeting**


**Attendance register for the public meeting to be held on Wednesday 3 November 2010 at 11:00
in the Zola Community Hall, Near Thornhill, Eastern Cape.**

Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
1	WUBENSIBA SAMELA	0722859607		
2	ROSEY MATHHEBE	0760886584		
3	N. GRACE GISHI	0710915699		Zola. X
4	NGAMILE XASHA			X
5	THAMSANUBA SAMELA	N/A		X
6	CUCKY SAMELA	0932936148		
7	ANDIL PERE	N/A		
8	LWANKO MALUMBOMBI	0724088777		
9	BULISWA GEGE	0730897874		








Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
10	Zoliswa NtsuBumhla	078 864 667	Box 293 Queenstown	
11	BEN KHANDELA	—		BEN
12	Letina P.P.			X
13	Kuzile MATHIHE			X
14	N Mbelane			X
15	Nokuthula Mkhale	072 180 89 82		Mkhale
16	Selena			X
17	Tobela			X
18	MShanku Khwatskha	072 548 5612	P.O. Box 2519 Queenstown	
19	MONICA STEWENIA	082 724 3331	POSTNET SUITE #61 P1BAG x7055 Q.S.	
20	MAGAYI SAISI	073 380 7198		M SAISI


Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
21	HLS Blegocivils	0827243331	APR 15 JUNE #6 / BLEGOCIVILS	[Signature]
22	M. Mangochanya Solwana Municipality	079 516588	TREDWANA L.M TARAKHAMA	M. Mangochanya (Committee)
23	N. Ohasho	—		X
24	S. MRAJI	0714116383		S. MRAJI
25	Olivia F. Eshe	073 87 96748		Olivia
26	Thembeka Buny Ward committee	073 72 92658	P.O BOX 4827 Gycenthama	V. Buny
27	Mtumbanzole Ngetu	073 2100365		M. Ngetu
28	Noxolo Semela	078 121 2250		N. Semela
29	Noligisi Bwanti			I
30	Siatu			X
31	Mndi Nempakamo	0837374612		M. Mndi
32	M Nempakamo	—		X

Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
33	MNTAKA FUNWA	NKONDESHI 0738977754	0713995518	
34	Beaulia Refyu	0738977754		D.B. Refyu
35	Butelwa April	0787689703		B. E April
36	Siyabulala Neogwana	071442559		E. Neogwana
37	Nontayithallwa	Femeler		
38	NGETU Simikude	0732100365		
39	Siemlu Siki Indu	015911470		Siemlu
40	IKOMXOLISI NUGEM	0735931444		N. NUGEM
41	Nokhondelakhe Dokini	0794187637		N. Dokini
42	Nick workahg MH Linduduna			NMF

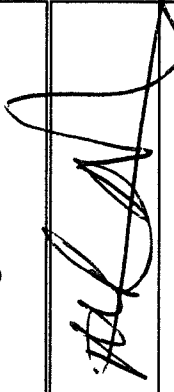





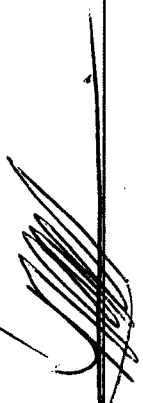
Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
43	Mokuzola Mbityana	0715245434		N. Mbityana
44	Nomble Ngungu	0833190605		N.A. Ngungu
45	Khetiani Samele	-		T
46	Vuyo Mumbi	0733045090		X
47	Yusumzim Bitsh	070998095		Y
48	Sandy Bollen	4 York Rd Vincent EC	083441199	
49	MAWANDE SAMELA	-		SAD
50	MR GYAKA	0739677516		MR Gyaka
51	M. Ndabandile	0738591908		M. Ndabandile

7






Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
52	FUNGELWA SCAM	0735245040		F. Some
53	Fikizoko Zandsike	071 816 7322		
54	Ngwenza Bethya	0745390570		
55	WILLIAM			
56	B. D. ULLUR	0832647880	4 York Rd Unionway	B.D. Ullur
57	JOHN			Samuel
58	M. Some	0796645852		
59	Sigebango Tarele	0787080033		
60	Nkos, Umlalelwe	0728474201		

Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
61	No kwakwate	Zola	-	W: Tete
62	N. S. mbeuzizi	Zola	072 1404 188	N. mbeuzizi
63	M. FIKANA	Zola	083 76 99343	M. FIKANA
64	N. Mqombothi	Zola	0786480	N.Q
65	T. Femele	Zola	0711 250779	
66	N. P. Heta	Zola	0735537270	N.P. Heta
67	L.D. Jasi	Zola	073 188 9900	L.D
68	S.S. Fafela	Zola	078 978 1824	S. Fafela
69	H. Mvula	Zola		X

Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
70	Nobuhide Oyasi	079 65-99 78		N.C. Oyasi
71	Ongena Sonon	073750 4435		O. Sonon
72	Lyone Cieplane	0788595074		C. Sonon
73	Esther Mawig	0783200740		E.M.
74	ZURU HES	0785557095		Z. HES
75	Cikusa Mbiam	0715245434		C. Mbiam
76	Nogusithe Sigan	0788507916		N. Sigan
77	Lungu Jofe	07 81305686		L. Jofe
78	SAMI S. NGWA	073126372		S.S.

Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
79	MONGEZI MOAH	083 283 6131	SANKAL	
80	MIRIAM			
81	BAQAWANA			X
82	NOUOJWANA			X
83	MOLAI MYALEMI	073 987 9396		
84	NOMATHA MGOBANE	084 9806 120		
85	Nomachule Portia Jithe	072 6977 016		
86	LENNEX MPEISHONI	073 6083 466		
87	TAYITHLE CONSTA V.M. MABUNU	983 929 1135		

Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
88	Thandeka Ngwenane	0736217955		Thandeka
89	Nongca Kung'u Mwangi	0787283775		N
90	Hluphla Sindi	0782917875		Hluphla Sindi
91	Nkululeko Ncube	0825415258	Nkululeko Ncube@isa.org	N. Ncube
92	Miriam Mdzurhe			M
93	Victoria Mthembu			Victoria Mthembu
94	Nokwisa Siza	0829642800		N. Siza
95	Nobongo Thembu	0731038560		N. Thembu

Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
96	Xobeklwu Mnzombu	0829642800		Xobeklwu
97	EMEDI MANGICINYWA			X
98	PALMEDA FEMEIE	0736547509		
99	SAPHY VALASHIR	0797940340		
100	SC JONES	0825594356		
101	Nengazi' Jorondo	0731600942		Nengazi
102	Nabuhlebathe Nkhalo			m. s.
103	Zubhigweniwezi Nombona	0823921099		
104	Siyabulela Siza	0738708725		

Sticker No	Contact person / organization	Contact details	Physical or postal address	Signature
105	Ludelia Sanele			L. Sanele
106	PATRICIA M'Sangwa			PA
107	MIREM Mosisa	0729865705	Goba (Gey) Ltd	RM Mosisa
108	N MOSI			
109	NIBEZU			
110	Bohonola			
111	Nambulo Kantsame	0781676585		H. Kantsame
112				
113				

CREATING UNIQUE SOLUTIONS
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Development Proposals

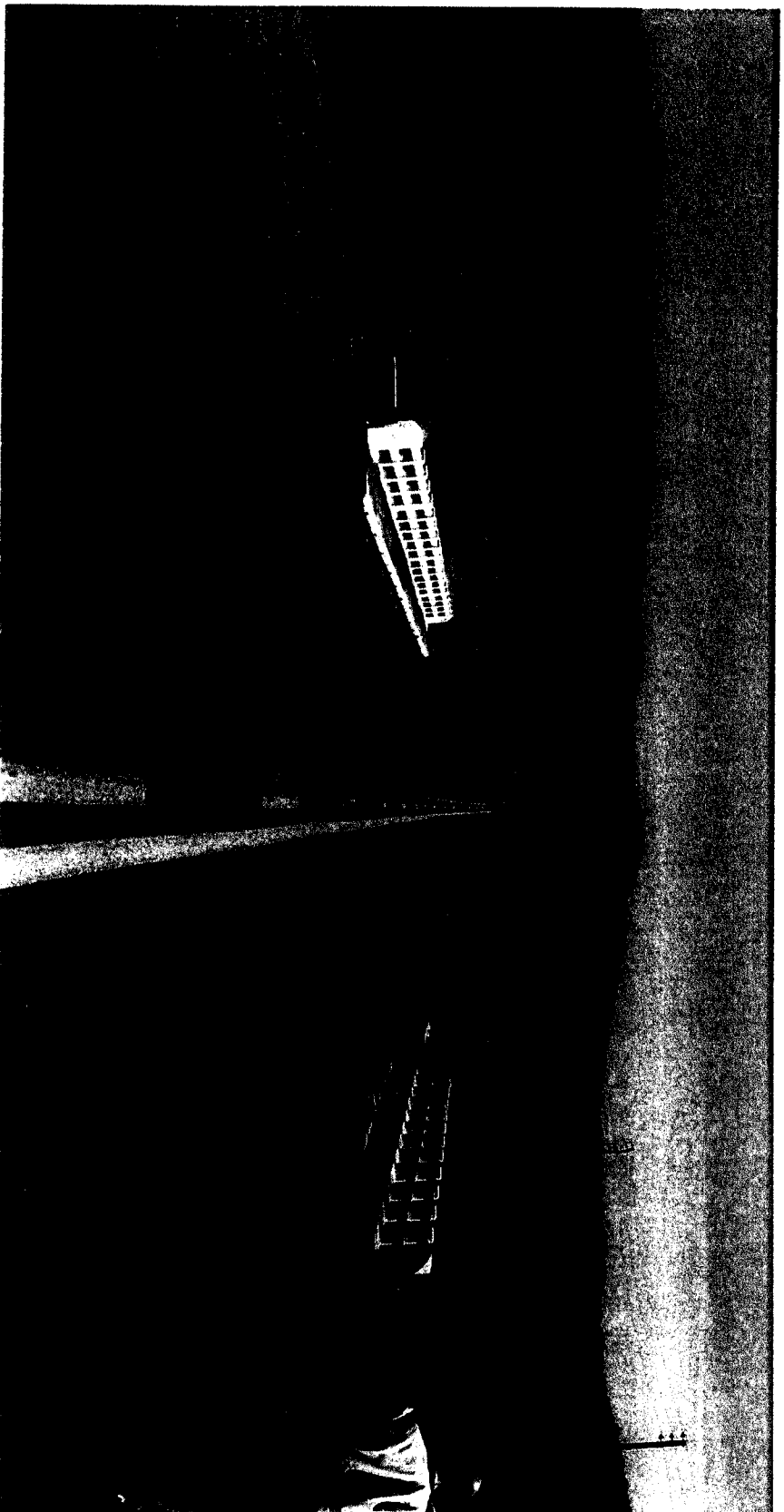
3.0 Contents

- General Overview
- Details of Reconstruction Works
- Alternatives
- Job Creation
- Land Owners
- Land Acquisition
- Community Project
- Photographs

3.1 General Overview

- National Route R61 Section 4 starts from km 0 to km 63,1.
- The entire R61 runs from the N9/R61 Intersection in Wadasberg Pass to the N2/R61 Intersection in Port Shepstone, however this section is from Tarkastad to Cradock.
- The existing road carriageway is narrow with gravel shoulders, which calls for rehabilitation.
- There are a total No. of 5 bridges widening along this section of the route will, but they will not form part of this project.
- Construction Contract Period will be approximately 24 months.

Existing Carriageway too narrow with gravel shoulders & Bridge Structure



3.2 Details of Re-construction Works

- The new carriageway will have a 2 lanes of 3,7m width, adequate for 2-way traffic with a 1,0m surfaced and 2,0m gravel shoulder on both sides as compared to the current narrow lanes of 3,0m.
- The general vehicle design speed for the route will be 100 km/hr.
- This portion of the national road has approximately 3 years of design life left, with some portions already showing signs of failure.
- The current AADT (annual average daily traffic) is 890. This is expected to grow in the next 20 years.

Areas showing signs of failure





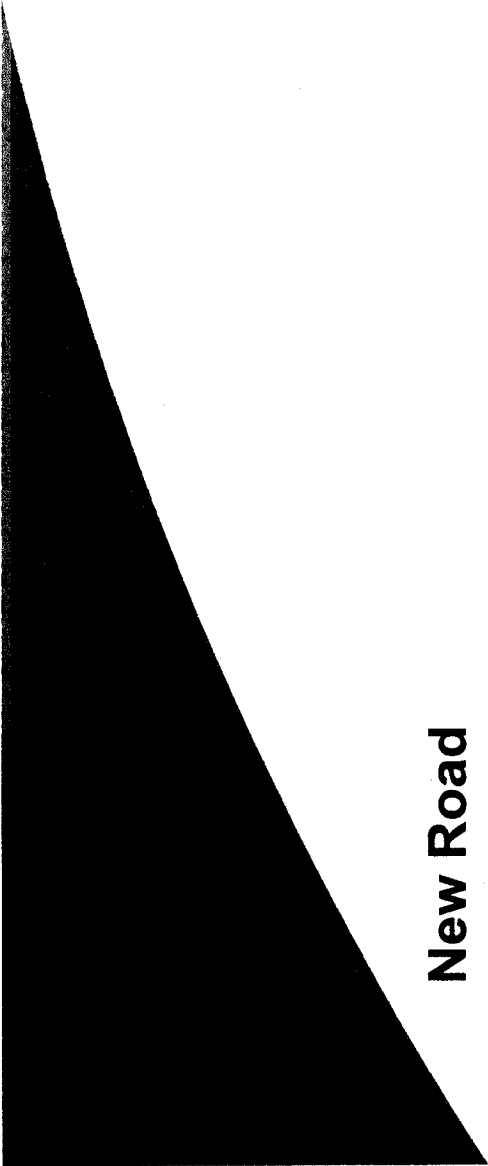
3.2 Details of Re-construction Works (cont.)

- The existing district road intersections with the R61 will also be upgraded.
- A total No. of 6 rest areas will be upgraded and unsafe rest areas will be closed.

3.3 Alternatives to the road upgrading

- Alternatives such as re-working the top layers of the existing road and adding one new layer, etc. were investigated.
- However, the only option that was considered was to widen the road from a surfaced width of 6,2m to a formation width of 13,4m and add 2 new layers on top of the existing road.
- The considered option conforms with SANRAL standards and it also offers sufficient structural capacity to cope with estimated future traffic.

New Road





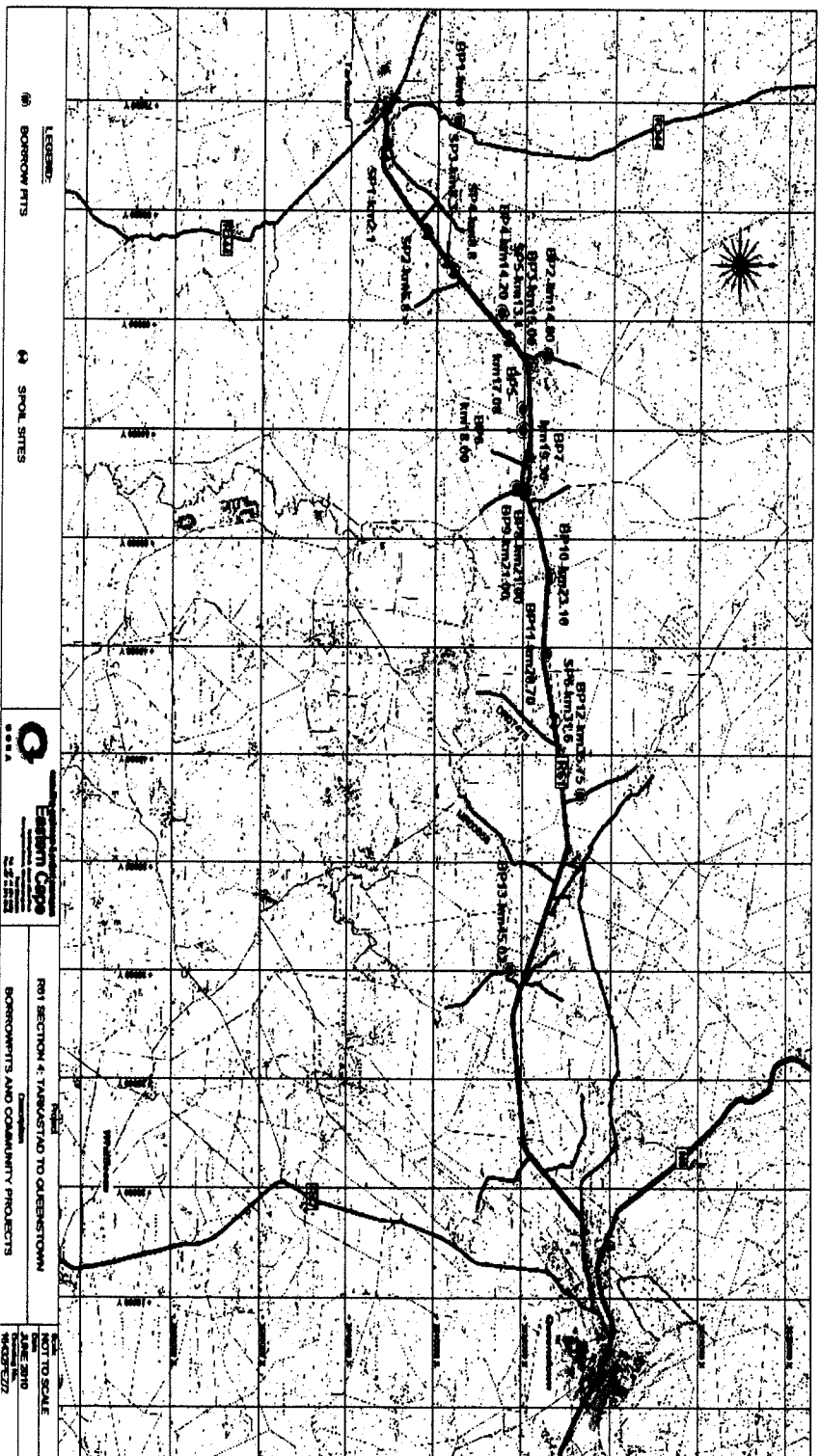
3.4 Job Creation

- Jobs will be created when Contractor commences on site in second quarter of 2011.
- A skills audit will be undertaken in the towns of Tarkastad, Queenstown and also in the communities along the R61.
- As is policy on all SANRAL projects, the successful Contractor will have to sub-contract a certain portion of the Works to SMME's. Therefore, Community road- building skills and resources will be utilised on the project.
- Local labour will also be employed for the Community Projects, which will be discussed later.
- The successful Contractor will be responsible for appointing the PLC and the CLO.

3.5 Land Owners

- All new fences will be erected at the start of the project and the old fences will be removed.
- There are 11 new borrow pits (refer Route map), that have been identified adjacent to the road, for sourcing of road building materials.
- One of these borrow pits will be a quarry site (hard rock quarry).

Route Map





3.5 Land Owners (contd.)

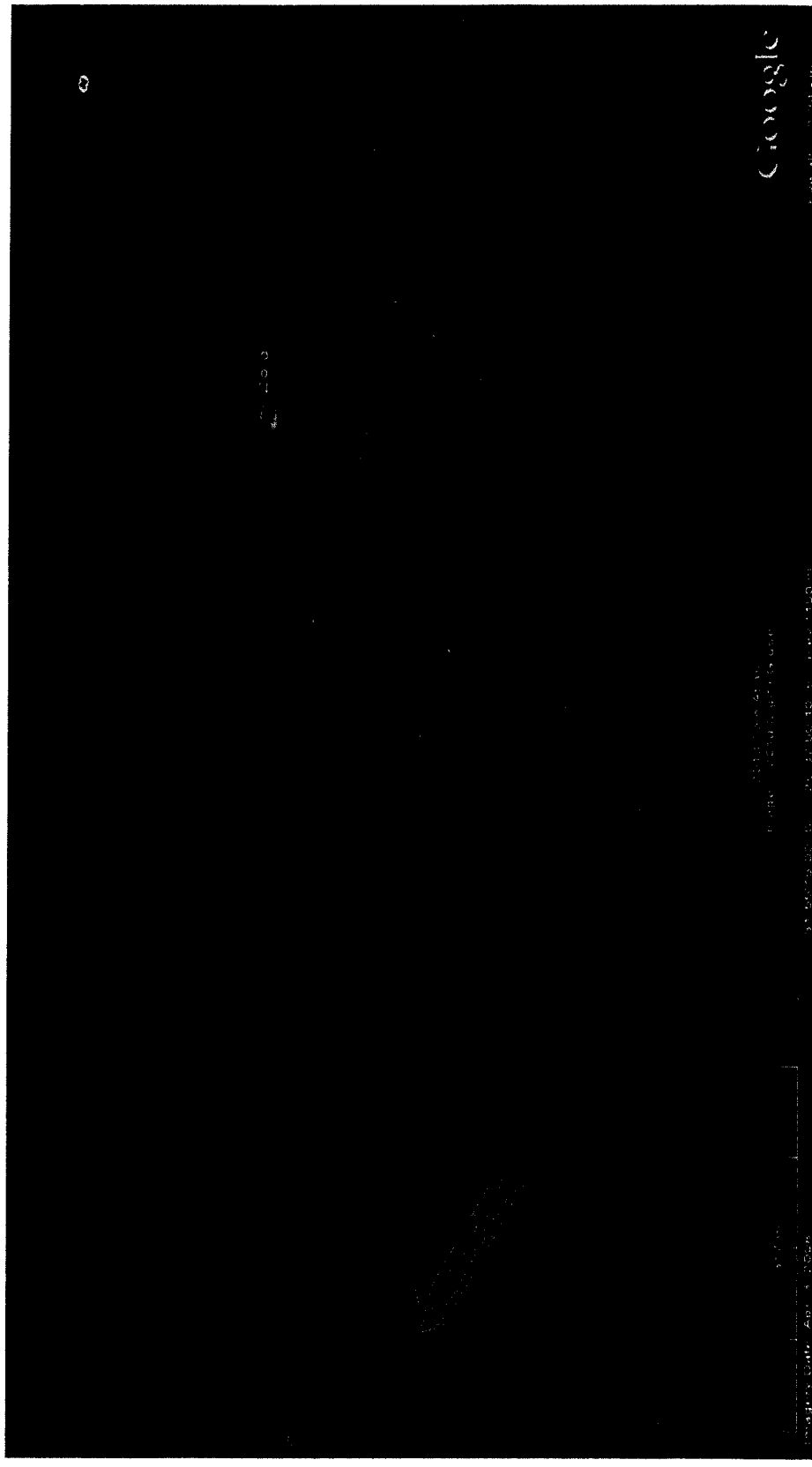
- Allowance has been made for 4 spoil sites (refer to Route Map).
- All the borrow pits and spoil sites, if they are used will be rehabilitated on completion of the project.
- Only frequently used farm accesses, district and main road intersections will be upgraded to a surfaced bell-mouth standard.



3.6 Land Acquisition

- At this stage, all land expropriation will be on the left-hand side of the road reserve.
- Generally, the expropriation width will be 3,0m except for portions where the new road encroaches over community or tribal land, where it will go up to 25m on each side of the new road centre-line.
- No compensation will be provided for land belonging to the community.

3.7 Community Project_1 – Refer to Route Map

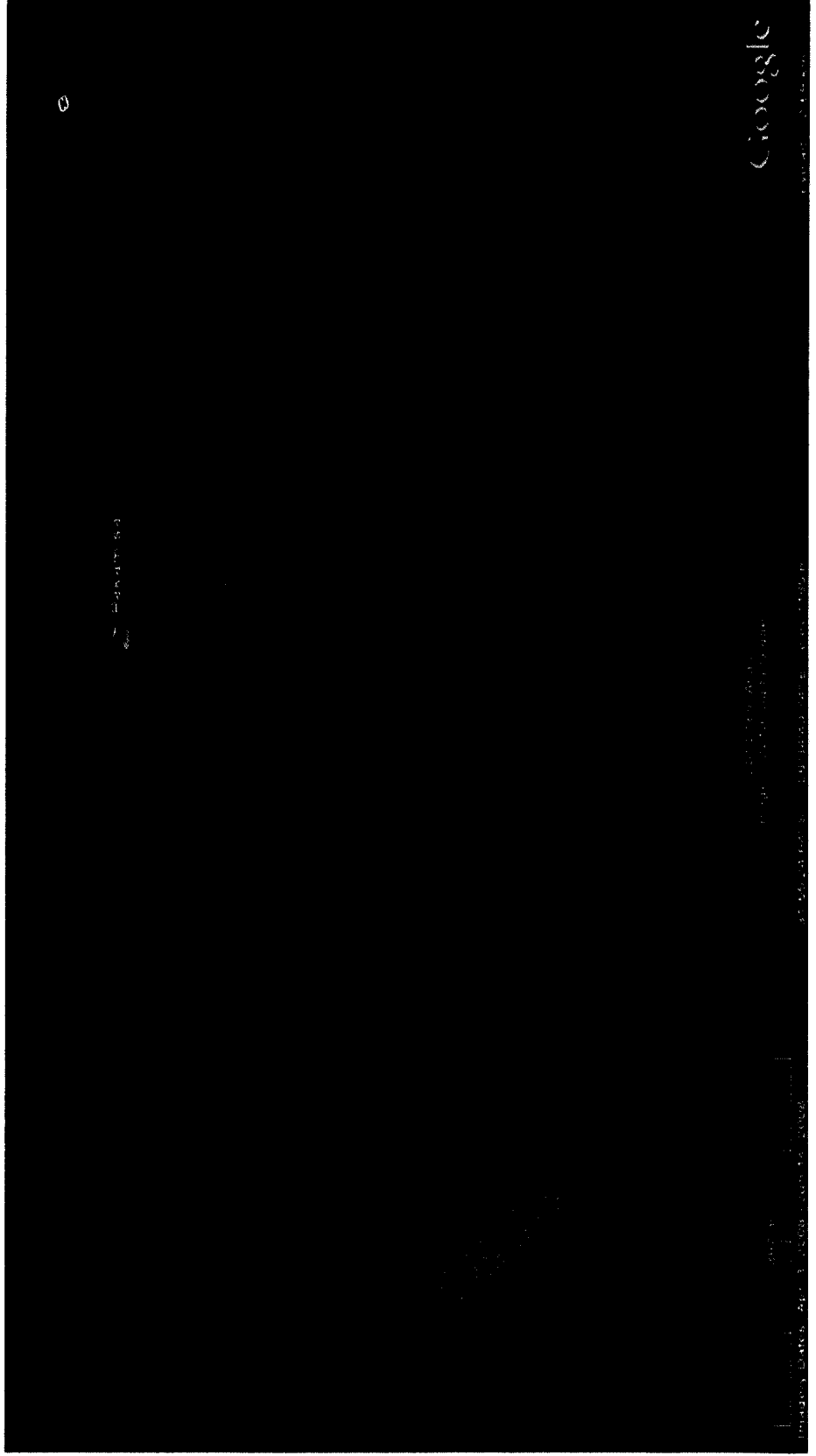




3.7 Community Development Project (cont.)

- The identified access roads are approximately 2,2 km each.
- The general improvements to the access road will be of minimum standards, and the roads will be aligned according to the existing ground topography.
- General storm-water design and drainage to be determined on site.
- No houses and property fences shall be damaged and re-erected.
- Minimal or no Eskom or Telkom lines to be removed.
- No graves to be exhumed.

3.7 Community Project _2 – Refer to Community Project Map



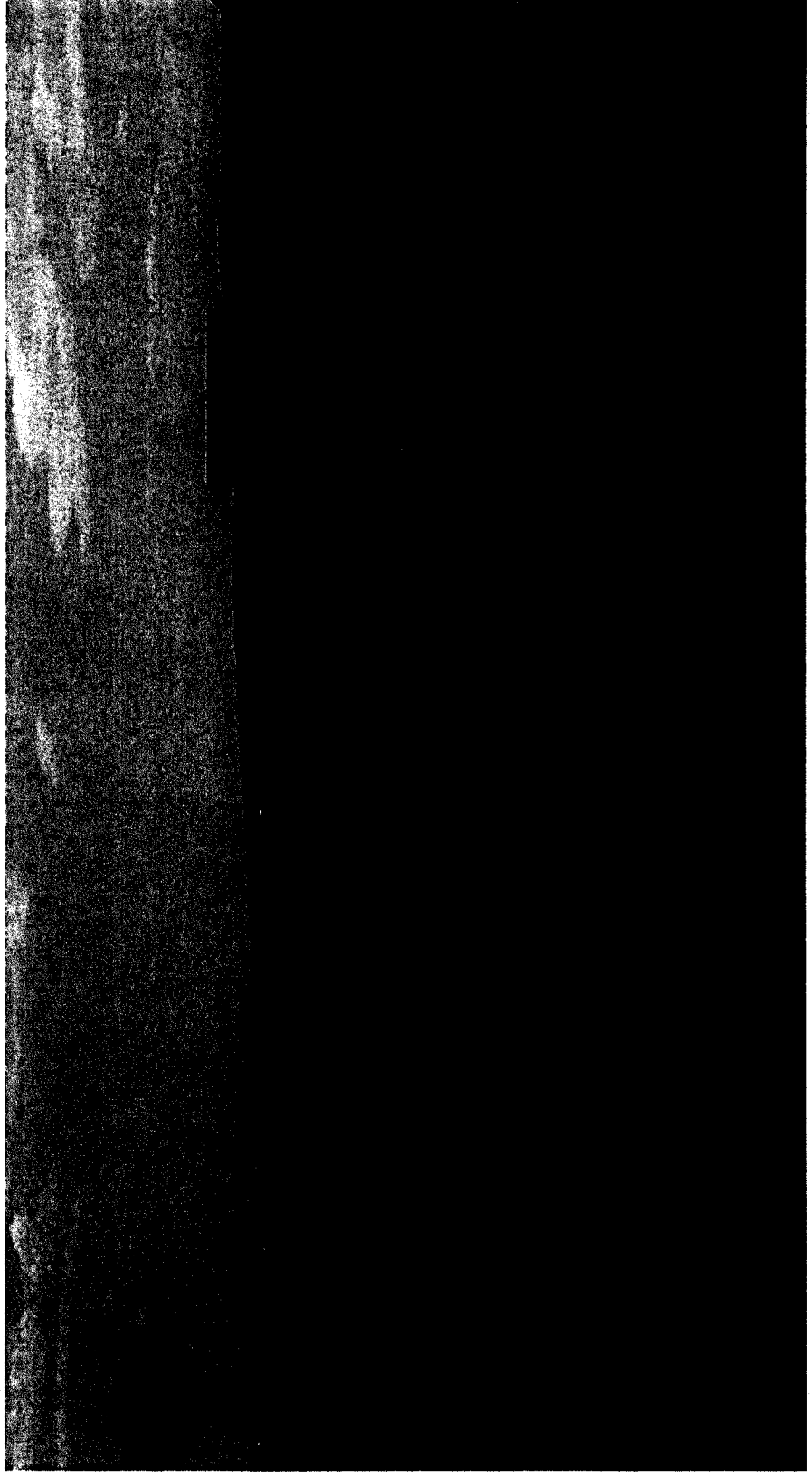
3.8 Photographs

- Areas showing signs of failure



3.8 Photographs

- New Road



CREATING UNIQUE SOLUTIONS
TOUCHING EVERYDAY LIVES