

**PROPOSED UPGRADE OF THE R22 HLUHLUWE RAILWAY
CROSSING, KWAZULU-NATAL:
BASIC ENVIRONMENTAL IMPACT ASSESSMENT, BACKGROUND
INFORMATION DOCUMENT
DEA REFERENCE: *PENDING***



Plate 1. The location of the proposed R22 Hluhluwe Railway Crossing.

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1. INTRODUCTION

Terratest (Pty) Ltd has been appointed to conduct the environmental services for the proposed upgrade of the R22/Railway Crossing on the outskirts of the town of Hluhluwe in KwaZulu-Natal. The application for Environmental Authorisation conforms to the National Environmental Management Act (Act 107 of 1998) (NEMA), Environmental Impact Assessment (EIA) Regulations of 2014.

The following activities contained in GNR 983 of the NEMA EIA Regulations, 2014, will be applied for:

Number and date of the relevant notice	Activity No (s) (in terms of the relevant notice)	Description of each listed activity as per project description
GNR 983	21	<p><i>“Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No.28 of 2002), including associated infrastructure, structures and earthworks directly related to the extraction of a mineral resource, including activities for which an exemption has been issued in terms of section 106 of the Mineral Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).”</i></p> <p>The construction of the proposed bridge interchange will require materials which will be mined from a borrow pit within close proximity to this development. The borrow pit has yet to be identified.</p>
GNR 983	24	<p><i>“The development of –</i></p> <p><i>(ii) a road with a reserve wider than 13.5 metres, or where no reserve exists where the road is wider than 8 metres.”</i></p> <p>The proposed roads associated with the railway crossing upgrade will have a width of more than 8 metres and the reserve of the road, once finalised is likely to be more than 13.5 metres.</p>
GNR 985	4	<p><i>“The development of a road wider than 4 metres with a reserve less than 13.5 metres. (d) In KwaZulu-Natal, (xii) Outside urban areas:</i></p>

		<p><i>(aa) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve”.</i></p> <p>The proposed bridge interchange is situated within 10 kilometres and to the west of the Isimangaliso Wetland Park. In addition, Bonamanzi Game Park is situated to the south-east of the proposed development. The proximity of these protected areas triggers the above mentioned listed activity.</p>
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According to the NEMA EIA Regulations, it is necessary for the applicant to appoint an independent Environmental Assessment Practitioner (EAP) who will adhere to the environmental stipulations and complete the applicable environmental process (a Basic Assessment process) on behalf of the applicant.

The relevant role players associated with the project are as follows:

Applicant	South African National Roads Agency Limited (SANRAL)
Design Engineers	Hatch Goba
Environmental Assessment Practitioner	Terratest (Pty) Ltd
Competent Authority	Department of Environmental Affairs

The Public Participation Process, as promulgated in terms of Chapter 6 of the NEMA EIA Regulations (GNR 543, 2010) is a fundamental process whereby the proponent, technical team, government authorities, key stakeholders and Interested and Affected Parties (IAPs) can engage in an informed decision-making process.

2. SITE LOCATION AND DESCRIPTION

The R22/Railway Crossing is located at the intersection of the R22 (Mbazwana/Sodwana) with the northern KwaZulu-Natal Mainline. The project site is surrounded by open land to the west, Gazebo Lodge to the north-east and Bonamanzi Game Park to the south-east. Co-ordinates for the site are as follows:

Point	Southerly co-ordinate	Easterly co-ordinate
A	28° 00' 41.90"	32° 16' 49.59"

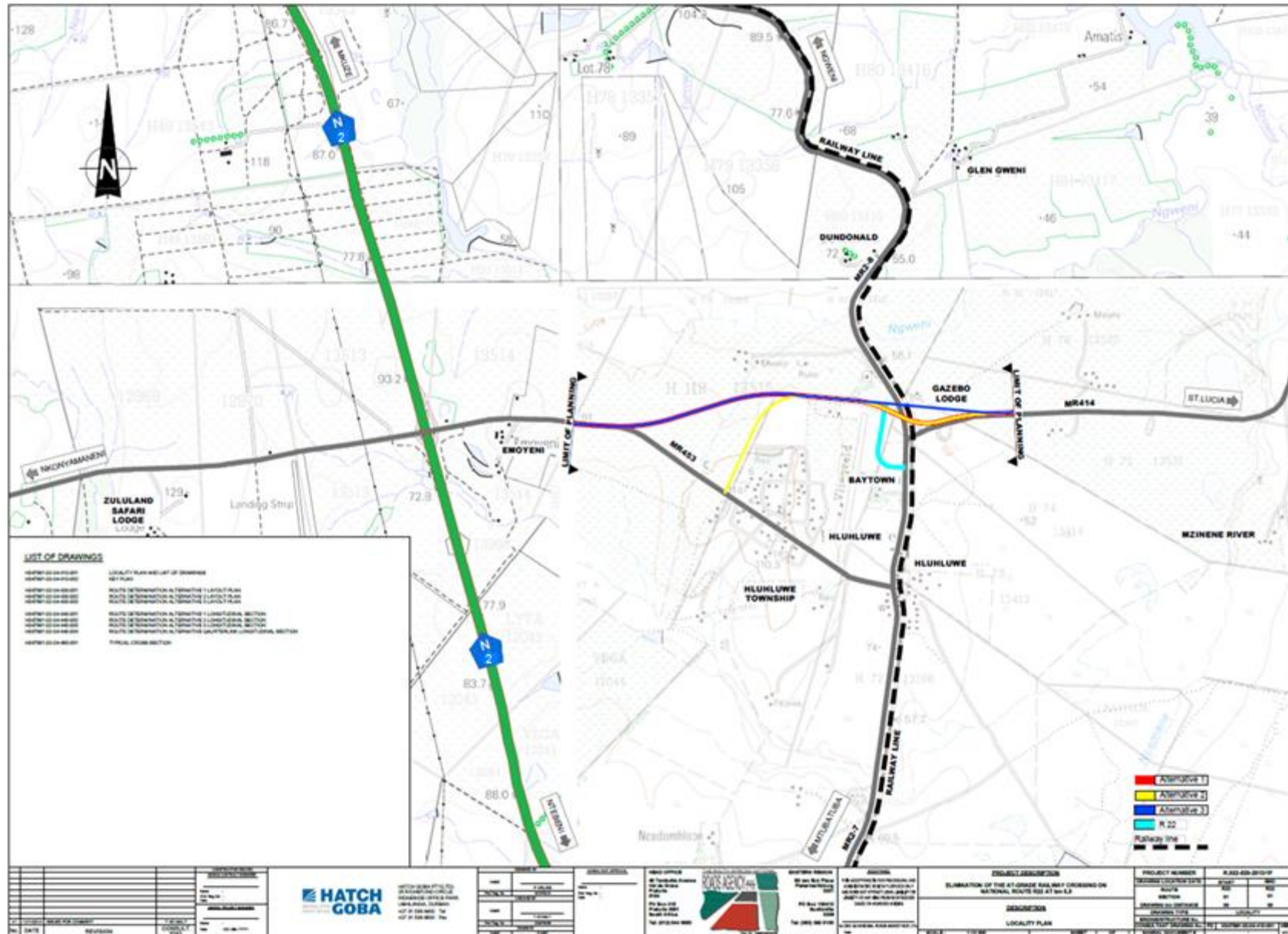


Figure 1. The locality of the proposed development, as per mapping produced by Hatch Goba.

3. EXISTING INFRASTRUCTURE

The existing infrastructure on site comprises of the R22 alignment traveling from the town of Hluhluwe, crossing the KwaZulu-Natal Mainline onwards to Mbazwana and Sodwana. The road and railway lines have the relevant stormwater infrastructure and the possibility of underground services such as pipelines are present. These will all be confirmed through a Services Report being compiled by Hatch/Goba.

4. PROPOSED ACTIVITY

The proposed development consists of three alternatives, all of which eliminate the existing at grade railway crossing along the R22, which offers significant safety benefits to both regional and local traffic.¹ This is in line with the proposed expansion and upgrade of the existing railway line, as well as the proposed Hluhluwe Town Bypass Road, which is planned for the future, as a separate application.

5. ENVIRONMENTAL SCOPE OF WORK

The Basic Assessment process that will be followed is in accordance with the NEMA EIA Regulations. The EAP is required to conduct the environmental application process and manage the public participation process, which is currently underway. Terratest (Pty) Ltd will perform the following:

1. Identify key stakeholders, authorities and municipalities, environmental groups and interested or affected members of the public, hereafter referred to as IAPs.
2. Compile a Background Information Document (BID) for the proposed development, providing details to IAPs of:
 - a. The listed activities that trigger the EIA process;
 - b. The scope of work;
 - c. The locality and current land use at the site;
 - d. A detailed site description;
 - e. The EIA process to be followed; and
 - f. The opportunity for IAPs to comment on the project.
3. Advertise the environmental application in a newspaper applicable to the region, namely: 'The Zululand Observer';
4. Place a poster/posters on the site;
5. Obtain landowner's consent;
6. Where necessary, attend Public Liaison Committee (PLC) meetings and workshops;
7. Host a Public Open Day, if necessary, providing details of issues identified by the EAP, stakeholders and IAPs;

¹ Hatch Goba, 2015: *Upgrade of the R22 between Hluhluwe and the MR 414: Transportation Report*.

8. Submit the completed Application Form and Landowner Consent form to the Department of Environmental Affairs (DEA), and obtain a project specific reference number;
9. Produce a draft Basic Assessment Report which is made available to all relevant stakeholders and registered IAPs for further comment;
10. Record all comments of IAPs and present such comments, as well as responses provided by Terratest, in a full Comments and Responses Report, which will be included in the Final Basic Assessment Report that will be submitted to DEA;
11. Submit the final Basic Assessment Report to DEA for review and Environmental Authorisation.
12. Notify all relevant stakeholders and registered IAPs of the Environmental Authorisation.

6. GENERAL SITE DESCRIPTION

a. Heritage

According to the National Heritage Resources Act No 25 of 1999, provisions are made to protect national heritage resources and this forms an integral part of the environmental assessment process. It is unknown at this stage what archaeological findings may be found at the proposed development site. Amafa is KwaZulu-Natal's heritage authority. An application has been made to this authority and a Heritage Impact Assessment (HIA) will be conducted, if required, in order to assess the cultural and heritage significance of any findings. This specialist study will be included in the Final Basic Assessment Report.

b. The Social Environment

Hluhluwe town is situated on the R22, adjacent to the N2, which is a major transport link connecting South Africa with Mozambique and Swaziland. The site experiences a fairly significant amount of vehicular traffic associated with its locality adjacent to a National Road, as well as its locality in proximity to the numerous surrounding game reserves. The R22 links Hluhluwe town, and the N2, to Mbazwana, St Lucia, Sodwana, and numerous other communities to the north of Hluhluwe, thus forming an important transport link.

c. Geology and terrain

The geology of the site consists of the Zululand sequence Letaba formation which consists of basalt and rhyolitic lava. The terrain of the greater Hluhluwe area is gently undulating, sporadically interspersed by streams and rivers.

d. Vegetation

The vegetation surrounding the site has been classified by Mucina and Rutherford (2006)² as Subtropical Alluvial vegetation, Zululand Lowveld and Western Maputaland Clay Bushveld.

Subtropical Alluvial vegetation is predominately found in the Limpopo, Mpumalanga and KwaZulu-Natal provinces. The vegetation is found in extensive flooded grasslands and flat alluvial riverine terraces supporting a complex of macrophytic vegetation.

Zululand Lowveld is predominantly found in the KwaZulu-Natal Province in slightly undulating landscapes. The predominant extent of this vegetation type in KwaZulu-Natal is Hluhluwe, Big Bend (south of Mkhuze) and Ulundi. The vegetation consists of tall grassland with sparsely scattered solitary trees and shrubs (forming a mosaic with the typical savannah), thornveld, bushveld and thicket patches. The conservation status of this vegetation is vulnerable, with up to 26% of the vegetation having been transformed due to cultivation.

Western Maputaland Clay Bushveld is predominantly found in the KwaZulu-Natal Province. In the Hluhluwe region, a narrow extension is found to the east of the town of Hluhluwe, on undulating landscapes. The vegetation consists of a mixed, wooded grasslands. The conservation status of this vegetation is vulnerable, with up to 34% of the vegetation having been transformed by cultivation. Vegetation transformation through agricultural practices has resulted in the conservation status of this vegetation group being listed as endangered. The vegetation type contains species such as the endemic taxon, *Crotalaria mollii* (Rattlepod).

Mucina and Rutherford (2006) have classified the site according to the above mentioned vegetation classifications. However the present on-site vegetation composition has been altered due to anthropogenic impacts; the private land to the west of the site is characterised as Zululand Lowveld and Western Maputaland Clay Bushveld. In reality, this land is disturbed land as a result of agricultural practices and burning regimes. Bonamanzi Game Park, to the south-east of the site can be assumed to contain the designated Makatini Clay Thicket and Western Maaputaland Clay Bushveld, as it is a protected area, experiencing limited human impact. Gazebo Lodge, to the north-east of the site, is transformed land containing housing and associated infrastructure.

² Mucina, L. & Rutherford, M.C. (eds) 2006. The Vegetation of South Africa, Lesotho and Swaziland. *Strelizia* 19. South African National Biodiversity Institute, Pretoria.

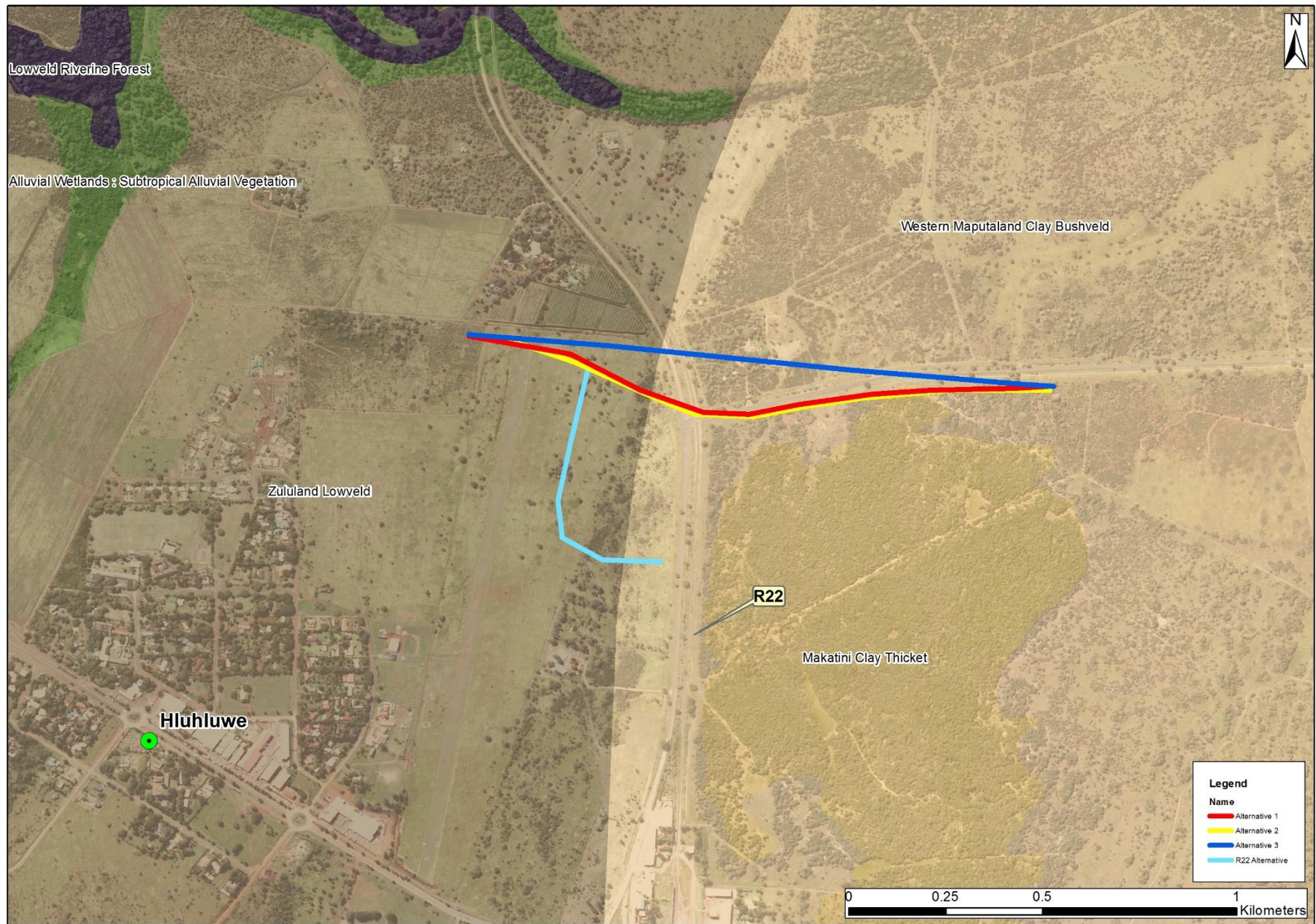


Figure 2. The location of the proposed site with regards to surrounding vegetation.

e. Photos



Plate 1. The intersection of the R22 (Bazwana/Sodwana bound), the R22 Hluhluwe bound, and the MR2-7.



Plate 2. The railway line over which a bridge is proposed, to provide safe crossing for vehicular and foot traffic.



Plate 3. The R22 is bordered to the south by Bonamanzi Game Park.



Plate 4. The site is bordered to the north by Gazebo Lodge.



Plate 5. The R22, Hhluwe bound.



Plate 6. The MR2-7, at the intersection with the R22.



Plate 7. A panoramic view, from the east, of the R22 intersection with the railway mainline.



Plate 8. A panoramic view from the west, of the R22 intersection.



Plate 9. The R22/railway mainline intersection. Note the Gazebo Lodge property in the background.

7. HOW DO I PARTICIPATE?

Every proposed development has the potential to significantly affect the natural and social environments, both at, as well as surrounding the proposed site. For this reason it is imperative that you as a stakeholder or an interested and/or affected party (IAP) comment on the proposed project and **highlight issues or concerns** that you feel need to be considered during the proposed planning and implementation process. Should you wish to register as an IAP or should you have any comments regarding the proposed development, please **state your interest** in the proposed development along with any **comments or queries** you may have.

A registration form is attached.

BASIC ENVIRONMENTAL IMPACT ASSESSMENT - PUBLIC PARTICIPATION PROCESS:
R22 HLUHLUWE INTERCHANGE

REGISTRATION FORM
Name: Surname Address: Postal Code: Tel No: Fax No: Cell No: e-mail :
Please state your interest in the proposed project:
Comments (add extra pages should you need):
Do you require any additional information?
Other parties which you think should be included in the process:
<i>Your comments are highly appreciated, and will be included in the final report to be submitted to the decision-making authorities.</i>
<u>PLEASE RETURN TO:</u> Imke Summers c/o TERRATEST (Pty) Ltd PO Box 794 Hilton 3245 Tel: 033 343 6789 Fax: 033 343 6788 email: summersi@terratest.co.za

Please Detach and Return to Terratest