

BACKGROUND INFORMATION DOCUMENT (BID)



as part of the
Basic Assessment Process



for the

Proposed Ngomankulu / Nsuze Bridge Construction, Nkandla Local Municipality, KwaZulu-Natal

EIA REF: DC28/0024/2013: KZN/EIA/0001242/2013

1. BACKGROUND INFORMATION

The proposed project is the construction of the Ngomankulu/Nsuze Bridge over the Nsuze River. The project site is situated within Ward 11 of Nkandla Municipality in KwaZulu-Natal, at approximately: - 28°44'38.80"S; 31°03'07.45"E

The proposed concrete bridge has a span of approximately 54m and will accommodate a single lane of traffic. This 4m wide lane will be flanked by a pedestrian walkway.

The proposed project site is situated in the Ngomankulu area which consists of small scattered villages. The Nsuze River flows in a north-south direction through this area, dividing the area into eastern and western halves. The proposed bridge will form a link between the two halves of the Ngomankulu area. The bridge will help to ensure safe passage for pedestrians, particularly children from the eastern villages that attend the Mngomezulu primary school in the western half of the area. The bridge will therefore address the safety hazard of crossing the river. The bridge is expected to service an estimated population of 1 000 people.

In broad terms the project will involve the following aspects:

- Design and sizing of bridge;
- Provision of single lane one way bridge and walkway;
- Provision of safety aspect for traffic and pedestrian crossing;
- Provision of erosion protection; and
- Provision of associated earthworks.

Terratest (Pty) Ltd has been commissioned to undertake a Basic Environmental Assessment for the proposed development in accordance with Sections 24 and 24D of the National Environmental Management Act (Act 108 of 1998) (NEMA) and associated EIA Regulations (2010). The following listed activities of Government Notice Regulation 544 are potentially triggered.

Activity 11 - The construction of:

iii. bridges;

vi. bulk storm water outlet structures;

xi. infrastructure or structures covering 50 square metres or more;

where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.

Activity 18 – *The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock or more than 5 cubic metres from:*

i. a watercourse;

The following listed activity of Government Notice Regulation 546 is potentially triggered.

Activity 16 - *The construction of:*

(iv) infrastructure covering 10 square metres or more

where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse

a) In Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga and Northern Cape provinces:

ii. Outside urban areas, in:

(hh) 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 area of a biosphere reserve.

2. PURPOSE OF THIS REPORT

This document provides preliminary project information to enable interested and/or affected parties (IAPs) an opportunity to comment on the proposed development. All issues and comments raised by IAPs will be documented. This will assist in the identification of social or biophysical issues that could have a negative and/or positive impact on the proposed site and the community.

3. AFFECTED AREA

3.1 Biophysical Environment

3.1.1 Topography

The project site is situated in the floodplain of the Nsuze River, at an elevation of 357m. The topography is relatively flat from the eastern to the southern edges of the project area. The slope gradient becomes steeper from the west to the mountainous northern edges of the project site. The Nsuze River is a perennial river that flows in a north to south direction.



Figure 1: Steeper western edge to mountainous north edge of project site.

3.1.2 Vegetation

The vegetation cover within the study area is classified as the “Sub-escarpment Savanna” (Mucina and Rutherford, 2006). There are two variations of this biome spreading over the study area. These variations are known as the Ngongoni Veld (SVs4) and the Eastern Valley Bushveld (SVs6) (Mucina and Rutherford, 2006).

The Ngongoni Veld is distributed from Melmoth in KwaZulu-Natal in the north, to Libode in the Eastern Cape. This vegetation is typically dense, tall grassland which is largely dominated by unpalatable wiry Ngongoni grass (*Aristida junciformis*). Thornveld are also found in valleys at lower altitudes. The Ngongoni Veld vegetation thrives in regions that receive summer rainfall with a Mean Annual Precipitation range of 700-1 100mm (Mucina and Rutherford, 2006).

The Eastern Valley Bushveld can be found in “deeply incised valleys of rivers” (Mucina and Rutherford, 2006: 512) from KwaZulu-Natal to the Eastern Cape. This vegetation characteristically consists of an assortment of semideciduous savanna woodlands with succulent thickets that are dominated by species of *Euphorbia* and *Aloe*. The vegetation is commonly found in regions that receive summer rainfall with a Mean Annual Precipitation range of 550-1 000mm.



Figure 2: Sub-escarpment Savanna vegetation along Nsuze River.

3.1.3 Geology

According to the 1:250 000 geological map 2830 Dundee, the site is situated on alluvium that overlays Halambu Gneiss which consists of granite gneiss and granodiorite gneiss. The Halambu Gneiss is part of the intrusive rocks of the Nkomo Nappe of the Natal Metamorphic Province.

Faulting is also evident in the vicinity of the study area. A northwest to southeast thrust faulting trend in the northern and southwestern regions of the project site. the angle of faulting within the Halambu Gneiss ranges between 20° and 56°.

3.1.4 Geohydrology

According to the Hydrogeological Map Series of the Republic of South Africa (DWAF, 1998), the general geohydrology comprises predominantly meta-arenaceous rocks such as quartzite, gneiss, migmatite and granulite. The principal groundwater occurrence of the Beaufort Group is from an intergranular and fractured aquifer type, with median borehole yields in the range of 0.1-0.5l/s. Mean Annual Precipitation (MAP) is typically in the range of 800 to 1 000mm. Groundwater conditions will vary according to local conditions but generally are characterized by low electrical conductivity values (0-70mS/m).

3.1.5 Surface Hydrology

The project site is situated within the V40D quaternary catchment. The catchment is drained by the Nsuze River which flows in a north to south direction. There are other non-perennial tributaries that drain from the mountainous regions of the study area that flow into the Nsuze River.

3.2 Social/Cultural Environment

3.2.1 Current Land Use

The project area is in a predominantly rural environment. There are traditional households established on small villages that are scattered in and around the study area. Most households are engaged in subsistence agricultural activities. A soccer field was also identified near the proposed project site as a recreational land-use.

3.2.2 Areas of Cultural/Heritage Significance

The proposed project area is situated on the edges of the Nsuze River. Areas of cultural/ heritage significance were not identified on the initial site visit and neither were they identified in map material. The Public Participation Process anticipated to provide valuable information about any sites of cultural/heritage importance that may be affected by the proposed project.

3.2.3 Property Ownership / Cadastral Information

The property on which the project is to be conducted is owned by the Ingonyama Trust. The property description is: Reserve Number 19, Farm Number 15839, Portion 24.

The location of proposed project site is **28°44'38.80"S; 31° 3'7.45"E**. Please see Figure 1.

4. INTERESTED AND AFFECTED PARTIES

All Interested and Affected Parties (IAPs) who would like to become registered as such and receive additional project information, should contact the environmental consultants to register as soon as possible (within 14 days of receiving this document). If any recipient of this information is aware of additional IAPs in the area who should be contacted and informed regarding this project, please advise us of such, so that we might contact them and afford them an opportunity to register, receive project information and be included in the Public Participation Process. We thank you for your assistance in this regard. Any issues which you would like to raise, or issues that have not been identified to date would be welcomed.

5. CONTACT NAMES AND ADDRESSES

Interested and Affected Parties may contact the Environmental Consultants listed below for additional information.

Environmental Consultants: Terratest (Pty) Ltd.

Contact: Sandile Nkomonde

PO Box 2762; Westway Office Park; 3635

Tel: 031 275 5500; Fax: 031 265 8255

Email: nkomondes@terratest.co.za

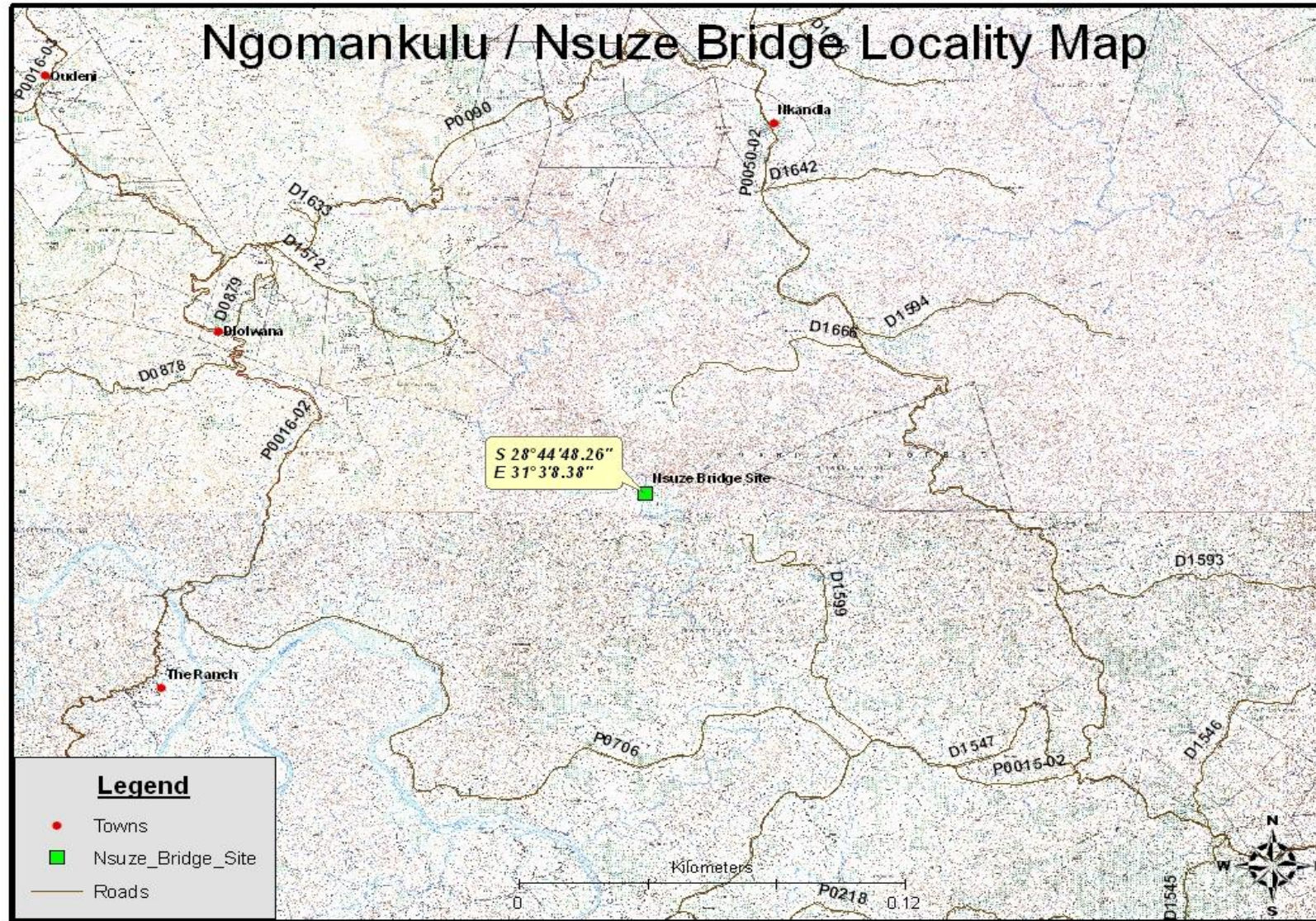






FIGURE 1

SITE LOCALITY

LEGEND

-  Town
-  Project Site
-  Local Municipality
-  Roads



APPLICANT

Nkandla Local Municipality

PROJECT

Ngomankulu / Nsuze Bridge Construction

JOB NUMBER

41366



