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PHASE 1 HERITAGE IMPACT ASSESSMENT: NSELENI RIVER BRIDGE (DC28/0013/2013)

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Executive Summary

SANRAL is proposing the construction of a new river bridge over the Nseleni River, north east of Empangeni, herewith replacing an old steel bridge constructed in the 1930s. The old bridge will not be demolished and is as such protected by Heritage legislation as it is over 60 years of age. This activity triggered an EIA to be completed to comply with National Heritage legislation.

Following a desktop survey, a field survey was undertaken on Thursday 15 August 2013. No archaeological sites were detected. The existing buildings bridge will not be affected and no other heritage resources are situated in close vicinity.

As the construction of the new bridge poses no threat to KZN's heritage resources, it was recommended that permission be granted to commence with construction. However, should any archaeological resources be accidentally unearthed during the course of construction, all such activities are to be halted and AMAFA alerted.

1. Introduction/background

A new river bridge is to be constructed adjacent to the existing bridge over the Nseleni River 11,3kms north east of Empangeni. The bridge links the town of Empangeni to the villages of Lubana and Mabuyeni.

The existing bridge is a single lane steel truss bridge similar to the old bridge over the Mlalazi River near Mtunzini. These bridges were imported by ship from Sheffield, Britain, during the 1930s in kit form – it was assembled on site, usually at a spot where bed-rock was found. There is no intention to demolish the existing bridge, with the advantage that these old bridges protect the new concrete structures during times of floods. During Cyclone Demoina (1984) and the floods of September 1987 the new Mlalazi bridge was saved by the old steel bridge, which took the wrath of the flood water's force.

The above activity triggers an Environmental Impact Assessment (EIA) to be completed and authorised prior to commencement of construction (See National Environmental Act No 107 of 1998). Triplo4 was appointed by the applicants to carry out the EIA and launch the application on their behalf. Albert van Jaarsveld was sub-contracted by Triplo4 to do a Phase I Heritage Impact Assessment in compliance of Section 38 of the National Heritage Resources Act of 1999 as amended. (See Section 3 of this report).

2. Details of consultant and ability to perform the service

Albert van Jaarsveld is currently Acting HOD of the Dept of History, University of Zululand. He obtained the degrees BA and BA (Hons) (Archaeology and History) cum laude from the University of Pretoria. He also has a Masters in History from Rhodes University (1986). He is a member of several professional societies, including the SA Archaeological society (SAAS), Association of Southern African Professional Archaeologists (ASAPA – cultural resources management section) and South African Historical Society (SAHS) and an AMAFA credited Cultural Heritage Resources practitioner. He is the

author of several scientific publications (books and articles) and has completed about 300 Heritage Impact Assessments in several provinces for several companies and institutions over the past five years, including major power transmission lines (such as Perseus-Hydra 765kv, Arcus Gibb). His detailed CV is available on request.

3. Heritage legislation affecting the proposed development

Cultural heritage resources can broadly be defined as “physical features, both natural and man-made, associated with human activity”. South African heritage legislation stretches further than the restricted definition above by also including invisible and intangible beliefs, ideas and oral traditions, which are regarded as important as physical cultural objects. Also included are fossils and meteorite sites. Heritage resources reflected in South African heritage legislation (Act No 25 of 1999) include the following:

- a) Places, buildings, structures and equipment;
- b) Places to which oral traditions are attached or which are associated with living heritage;
- c) Historical settlements and townscapes;
- d) Landscapes and natural features;
- e) Geological sites of scientific or cultural importance;
- f) Archaeological and palaeontological sites;
- g) Graves and burial grounds, including –
 - (i) Ancestral graves,
 - (ii) Royal graves and graves of traditional leaders,
 - (iii) Graves of victims of conflict,
 - (iv) Graves of important individuals,
 - (v) Historical graves and cemeteries older than 60 years, and
 - (vi) Other human remains, which are not covered under the Human Tissues Act, 1983 (Act No. 65 of 1983 as amended);
- h) Sites of significance relating to the history of slavery in South Africa;
- i) Movable objects, including –

- (i) Objects recovered from the soil or waters of South Africa including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
- (ii) Ethnographic art and objects;
- (iii) Military objects;
- (iv) Objects of decorative art;
- (v) Objects of fine art;
- (vi) Objects of scientific or technological interest;
- (vii) Books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings; and
- (viii) Any other prescribed categories.

But excluding any object made by a living person.

The above Act - Section 38 (1) – requires a Heritage Impact Assessment in case of:

- a) The construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- b) The construction of a bridge or similar structure exceeding 50m in length;
- c) Any development or other activity which will change the character of a site
 - (i) Exceeding 5 000m² in extent; or
 - (ii) Involving three or more existing erven or subdivisions thereof; or
 - (iii) Involving three or more erven or subdivisions thereof which have been consolidated within the past five years; or
- d) The costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- e) The re-zoning of a site exceeding 10 000m² in extent; or
- f) Any other category of development provided for in regulations by SAHRA or a provincial resources authority.

SAHRA (South African Heritage Resources Agency) requires sufficient information about identified heritage sites to enable it to assess with confidence:

- a) Whether or not it has objections to a development
- b) What the conditions are upon which such development might proceed
- c) Which sites require permits for mitigation or destruction
- d) Which sites require mitigation and what this should comprise
- e) Whether sites must be conserved and what alternatives can be proposed that may re-locate the development in such a way as to conserve other sites, for example, by incorporating them in a wilderness area, or under a parking space; and
- f) What measures should/can be put in place to protect the sites that should be conserved.

While grading (field rating or field significance) is actually the responsibility of the heritage resources authorities, all reports should include Field Ratings for the sites, to comply with Section 38 of the legislation, for example:

- National: Grade I significance e.g. resources such as the Castle in Cape Town (non-movable and no-go areas for any developer)
- Provincial: Grade II significance such as Later Stone Age engravings and paintings (non-movable and to be avoided as no-go areas)
- Local: Grade III A significance; where mitigation is not advised and the site should be retained as a heritage site of high significance
- Local: Grade III B significance; where a section of a site should be mitigated and part should be retained as a heritage site (high significance)
- Generally Protected A: where sites should be mitigated before destruction (generally high/medium significance)
- Generally Protected B: sites of medium significance that should be mitigated before development

- Generally Protected C: sites sufficiently recorded before development/construction (low significance)

Other sections of the Act with relevance are:

34 (1) No person may alter or demolish any structure or part of a structure which is older than sixty years without a permit issued by the relevant provincial heritage resources authority.

(2) Within three months of the refusal of the provincial heritage authority to issue a permit, consideration must be given to the protection of the place concerned in terms of one of the formal designations provided for in Part 1 of this Chapter.

(3) The provincial heritage resources authority may at its discretion, by notice in the Provincial Gazette, make an exemption from the requirements of subsection (1) within a defined geographical area, or for certain defined categories of site within a defined geographical area, provided that it is satisfied that heritage resources falling into the defined area or category have been identified and are adequately provided for in terms of the provisions of part 1 of this Chapter.

(4) Should the provincial heritage resources authority believe it to be necessary it may, following a three-month notice period published in the Provincial Gazette, withdraw or amend a notice under subsections (3).

The above legislation aims to promote and protect South Africa's rich cultural heritage so that future generations may bequeath this unique and precious aspect of our heritage to following generations.

4. Location and description of the affected environment

The proposed new bridge will span the Nseleni River to replace the existing steel bridge on road P425, 11,3kms north east of Empangeni, linking Empangeni to the villages of Lubana and Mabuyeni. GPS co-ordinates are S 28° 39' 20,39" and E 31° 56' 48,97".

The area is sandy and the banks of the Nseleni River are covered in thickly overgrown indigenous bush grass on the proposed construction site, with very little ground visibility. It is situated in the uThungulu Regional Municipality and City of Mhlatuze Local Municipality.

KZN Mapsheet 2831DB.

5. Study approach/method

Firstly, a desktop survey was undertaken to establish which known heritage resources occur in the area. It should also be mentioned that the author of this report did an extensive study on heritage resources in the area in 2008 for the uMhlatuze Municipality and as such is well acquainted with archaeological and historical resources in the area.

Secondly, a field survey was done on Thursday 15 August 2013. As mentioned earlier, ground visibility was not very clear due to dense overgrowth.

Photographs were taken with a seven pixel Sony Cybershot Digital camera while coordinates were taken with a handheld Garmin 75 Global Positioning System (GPS).

6. Results of survey

No archaeological artefacts – Stone or Iron Ages – were observed during the survey. Graves are unlikely to occur on the site of the river and none were observed.

7. Impact of the proposed development on existing cultural heritage resources and possible risks

No declared heritage sites (former National Monuments) occur on or close to the proposed bridge. The existing steel bridge will NOT be affected by the construction and is in no way under threat.

8. Recommended management/mitigation activities

Should any archaeological material be accidentally unearthed during the course of construction, all such activities should be halted and AMAFA alerted.

9. Conclusion

The proposed new bridge over the Nseleni River poses no threat to KZN's cultural heritage and it is recommended that the applicants be granted permission to proceed with the construction of the much needed bridge.

10. Sources

- Bulpin, T V. *Discovering South Africa*. Sixth Edition, Tafelberg Publishers, Cape Town, 2000
- Bulpin, T V. *Natal and the Zulu country*. Third Edition, Cape Town, 1987.
- Chadwick, G A: *The North Coast of Natal and Southern Zululand*. Durban, 1982.
- Deacon, H J & J. *Human Beginnings in Southern Africa. Uncovering the Secrets of the Stone Age*. David Philip, Cape Town & Johannesburg, 2002.
- Derwent, S. *KwaZulu-Natal Heritage Sites, A Guide to some great places*. David Philip, Claremont, 2006.
- Duminy, A & Guest, B (eds). *Natal and Zululand, from Earliest Times to 1910, A New History*. University of Natal Press, Shuter & Shooter, 1989.
- Hall, Martin. *The Changing Past: Farmers, Kings and Traders in Southern Africa, 200 – 1860*. David Philip, Cape Town & Johannesburg, 1987.
- Hall, Martin. *Archaeology Africa*. David Philip, Cape Town, 1996.
- Joukowsky, M. *A Complete Manual of Field Archaeology, Tools and Techniques of Field Work for Archaeologists*. Prentice Hall Press; New York, London, etc, 1980.
- Kaplan, J. *The state of archaeological information in the coastal zone from the Orange River to Ponta do Oura*. Department of Environmental Affairs and Tourism, Pretoria, 1993.
- KwaZulu Natal Provincial Gazette. KwaZulu Natal Heritage Act 1997, 23 January 1998.
- Maggs, Tim. "The Iron Age Farming Communities" in A Duminy and B Guest (eds): *Natal and Zululand from Earliest Times to 1910, A New History*, Shuter and Shooter, University of Natal Press, Pietermaritzburg, 1989.
- Mazel, A. "The Stone Age Peoples of Natal" in A Duminy and B Guest (eds): *Natal and Zululand from Earliest Time to 1910, A New History*, Shuter and Shooter, University of Natal Press, Pietermaritzburg, 1989.

- Meth, D, Uken, R and Whitmore, D. *KwaZulu Natal – 500 million years of geological history*. RBM, 2002.
- Mitchell, P. *The Archaeology of Southern Africa*. Cambridge University Press, Cambridge, 2000.
- Phillipson, D W. *African Archaeology*, Cambridge University Press, Cambridge, 1978.
- Raper, P E. *New Dictionary of South African Place Names*. Jonathan Ball, Johannesburg and Cape Town, 2005.
- Shaw, S, Sinclair, P, Andah and Okpoko A (eds). *The Archaeology of Africa, Food, Metals and Towns*. Routledge, London & New York, 1993.
- Van der Walt, J C. *Zululand: True Stories, 1780-1976*. Richards Bay, 2006.
- Van Jaarsveld, A: *Identification of Cultural Heritage Areas, City of uMhlatuze*. Unpublished report for City of uMhlatuze, 25 June 2008.
- Van Jaarsveld, A: *HIA – Proposed Double carriageway, Richards Bay*. Unpublished report for SIVEST Environmental, 28.02.2009.
- Van Jaarsveld, A: *HIA – Construction of East Central Arterial between John Ross Highway and Guldengracht*. Unpublished report for Ilifa Africa Engineers, 19.08.2009.
- Van Schalkwyk, L O & Wahl, B. *Cultural Heritage Management in KwaZulu Natal*. Natal Museum, Pietermaritzburg, 2002.
- Woodhouse, H C. *Archaeology in Southern Africa*. Pumell, Cape Town & Johannesburg, 1971.

11. Photographs



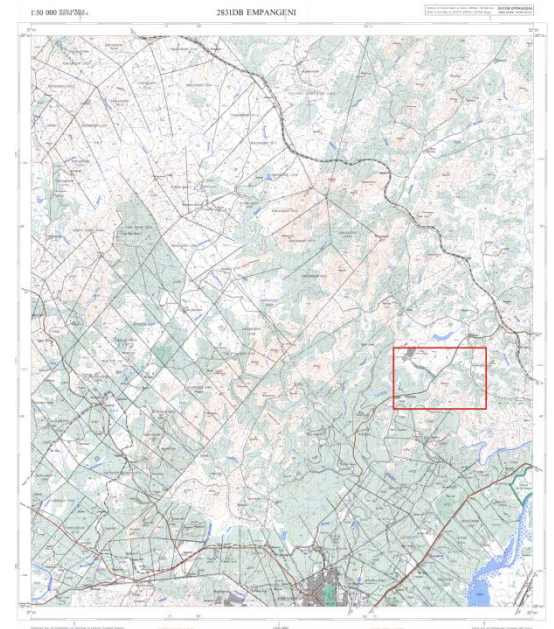
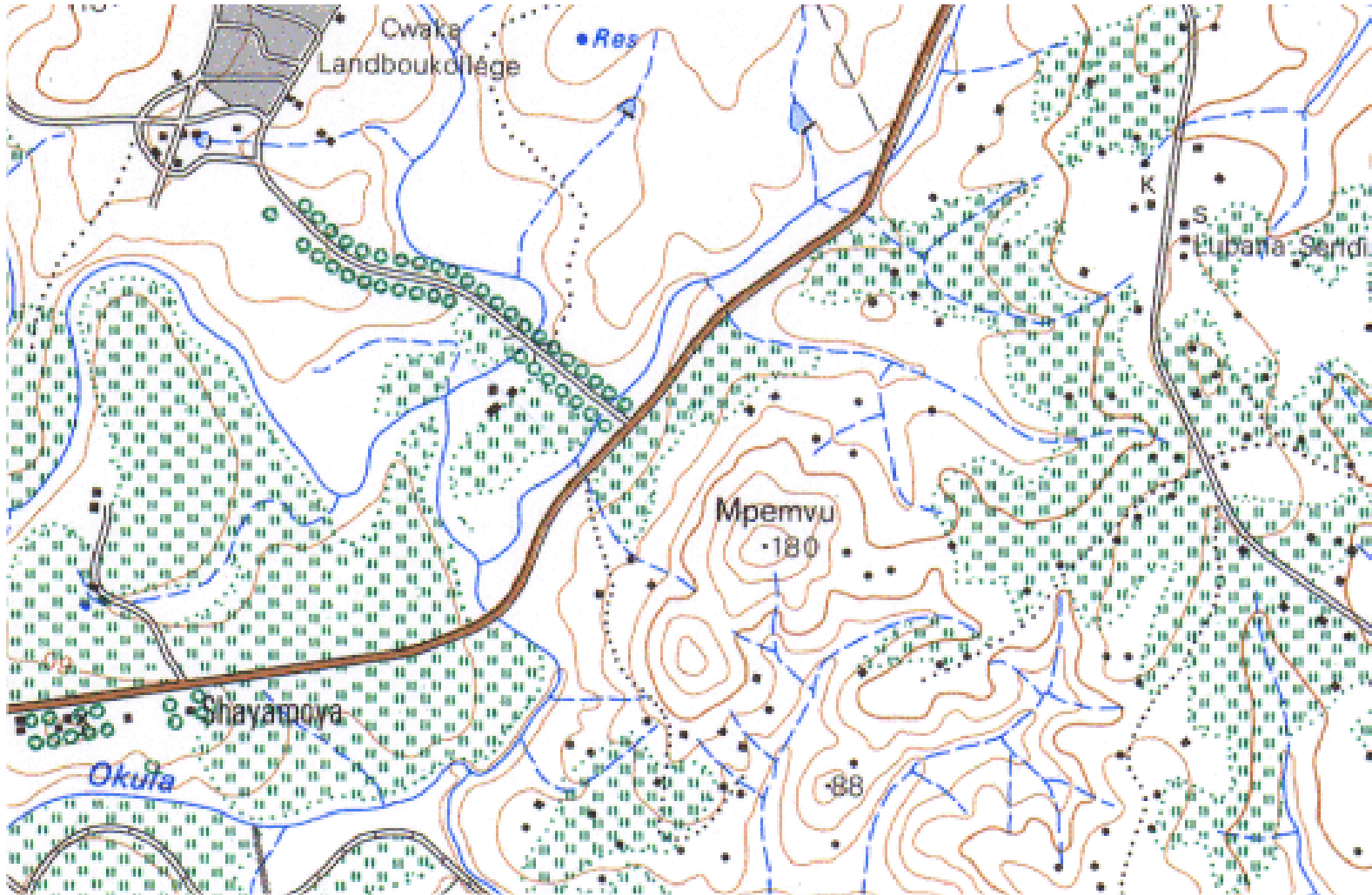
Existing Nseleni River Bridge.



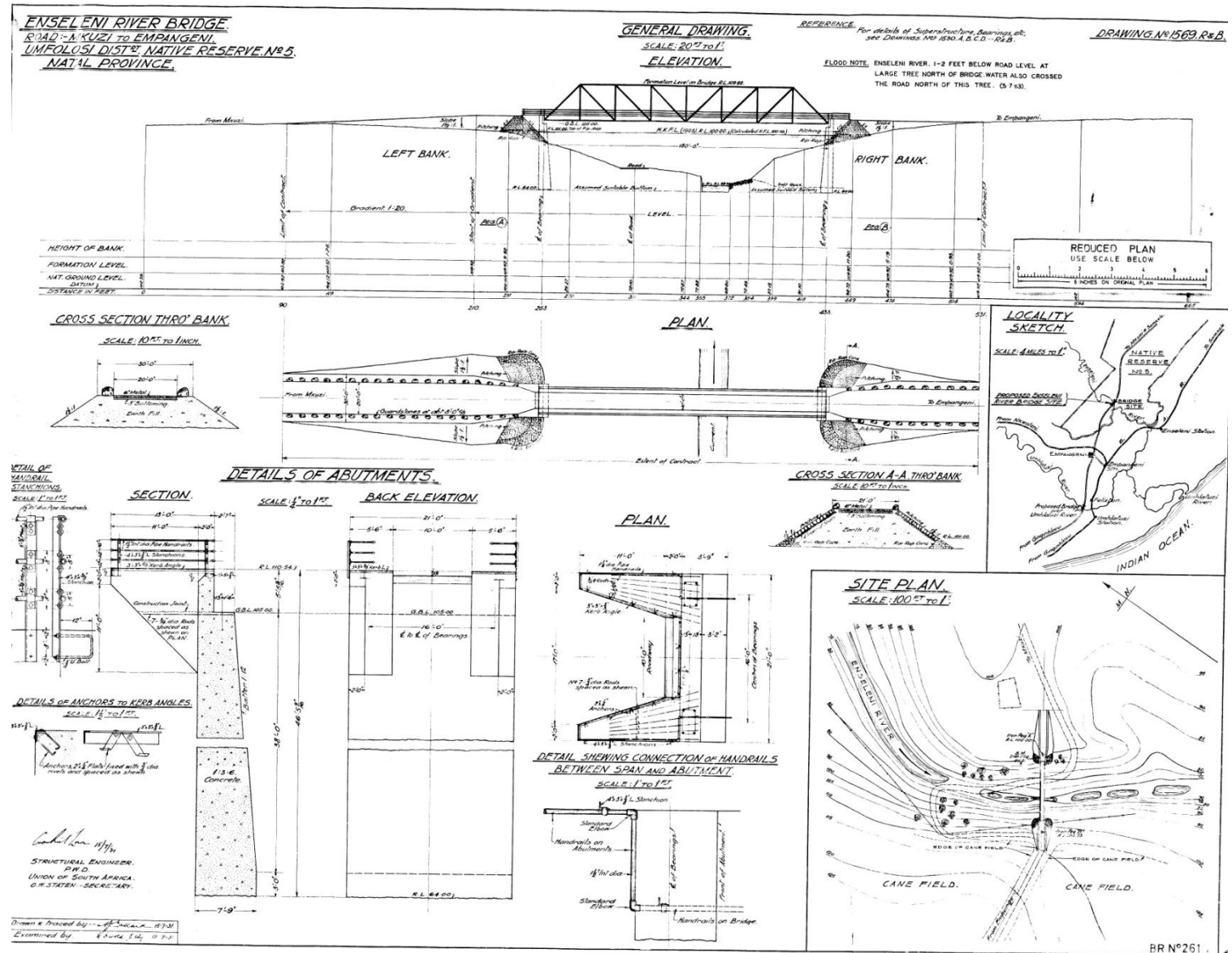
Existing Nseleni River Bridge.

12. Maps

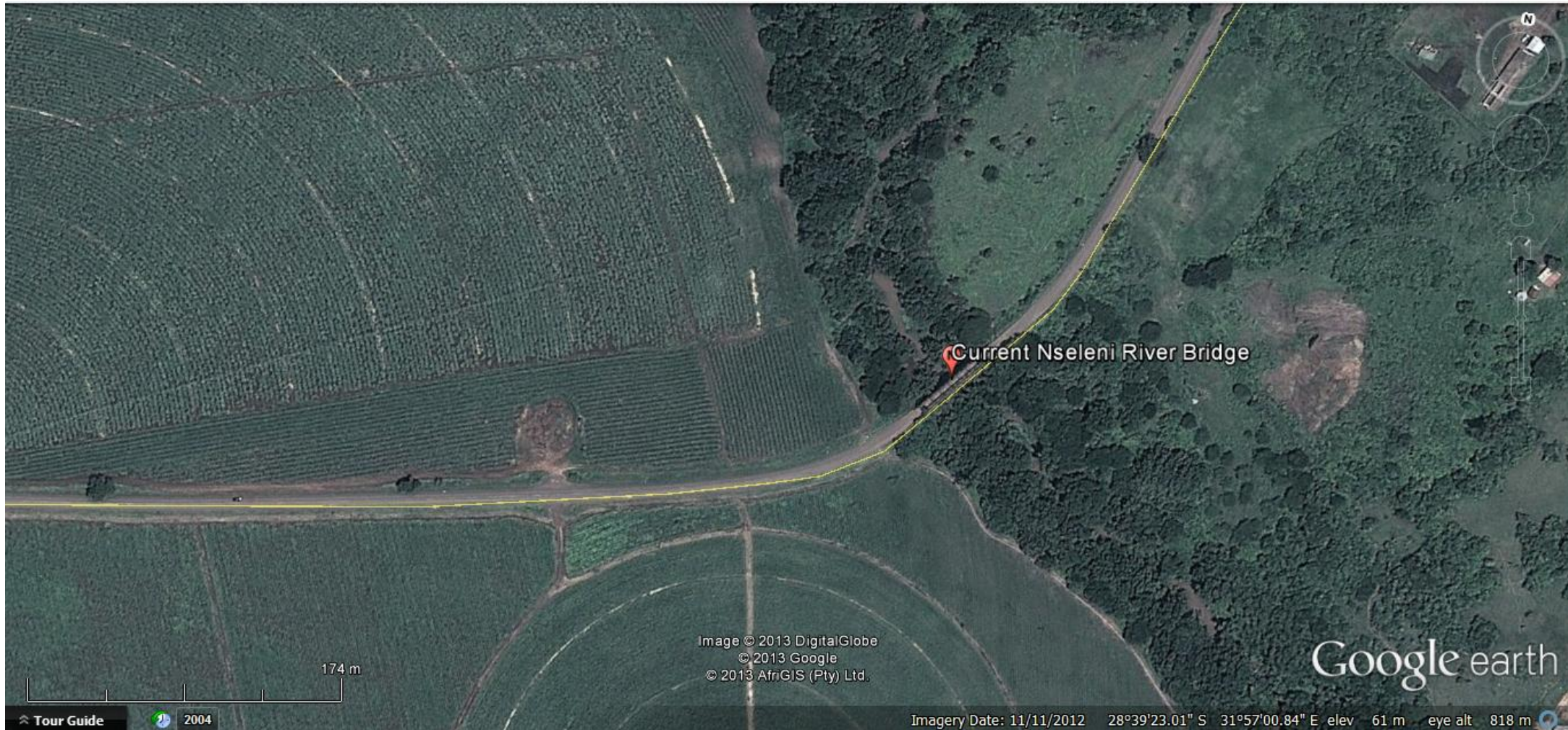
- Portion of KZN Mapsheet 2831DB



– Plans



– Google Earth Image



13. Declaration of Independence

SPECIALIST REPORT DETAILS

This report has been prepared as per the requirements of Section 33 of GNT 385 – Environmental Impact Assessment Regulations and the National Environmental Management Act (Act No. 107 of 1998), as well as minimum standards for report writing as determined by the South African Heritage Resources Agency (SAHRA) and ASAPA.

Report prepared by: *Albert van Jaarsveld*

Expertise/Field of Study: *Heritage*

I, *F.A. van Jaarsveld*, declare that this report has been prepared independently of any influence or prejudice as may be specified by the Department of Agriculture and Environmental affairs.

Signed:



Date	
Document title	
Author	
Revision number	
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Approved	
Signature	
For	