



Figure 207. Subsection 9.3: Spot check SC9.3.8. Stone mound of unknown age or context at 31°6'22.16"S; 30°8'13.0"E, situated to the west of the road reserve alignment.

Photo: SAS DSC00093, October 2011. Photographed at 31°6'22.16"S; 30°8'13.0"E



Figure 208. Subsection 9.3: Spot check SC9.3.6. Three recently stacked stone mounds outside and to the east of the road reserve alignment.

Photo: DSC00095, October 2011. Photographed at 31°6'25.61"S; 30°8'18.22"E.



Figure 209. Subsection 9.3: The Mpahlane River ravine at the site of the Mpahlane River Bridge.

Photo: SANRAL Heli IMG_4473.

- **Subsection 9.4: From the Mpahlane River Bridge to the Mzamba River Bridge**

Subsection 9.4 of the N2WCTH road reserve runs between the Mpahlane River Bridge and the Mzamba River Bridge, across a landscape which is characterized by shallow soil on Msikaba sandstone. Several watercourses and small patches of wetland and agricultural fields surrounding scattered homesteads are visible on the satellite imagery (see Figure 210). No evidence of archaeological sites was found on the southern bank of the Mzamba River Bridge (see Figure 210, below).

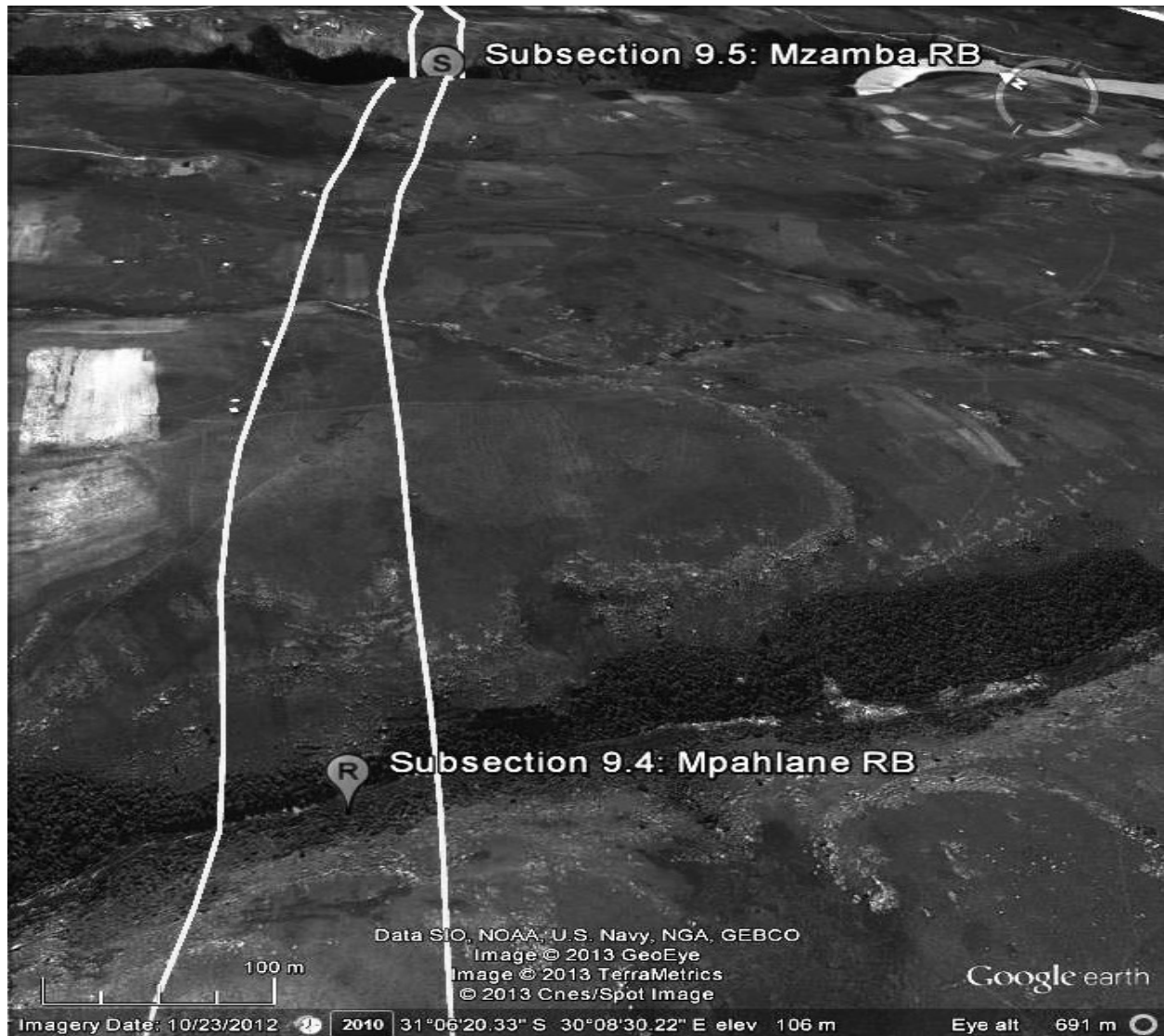


Figure 210. Subsection 9.4: Homesteads and adjacent agricultural fields along Subsection 9.4 of the road reserve.

Google Earth imagery date: 10/23/2012; ©2012. Viewed towards the north-east. Scale: 100 m.

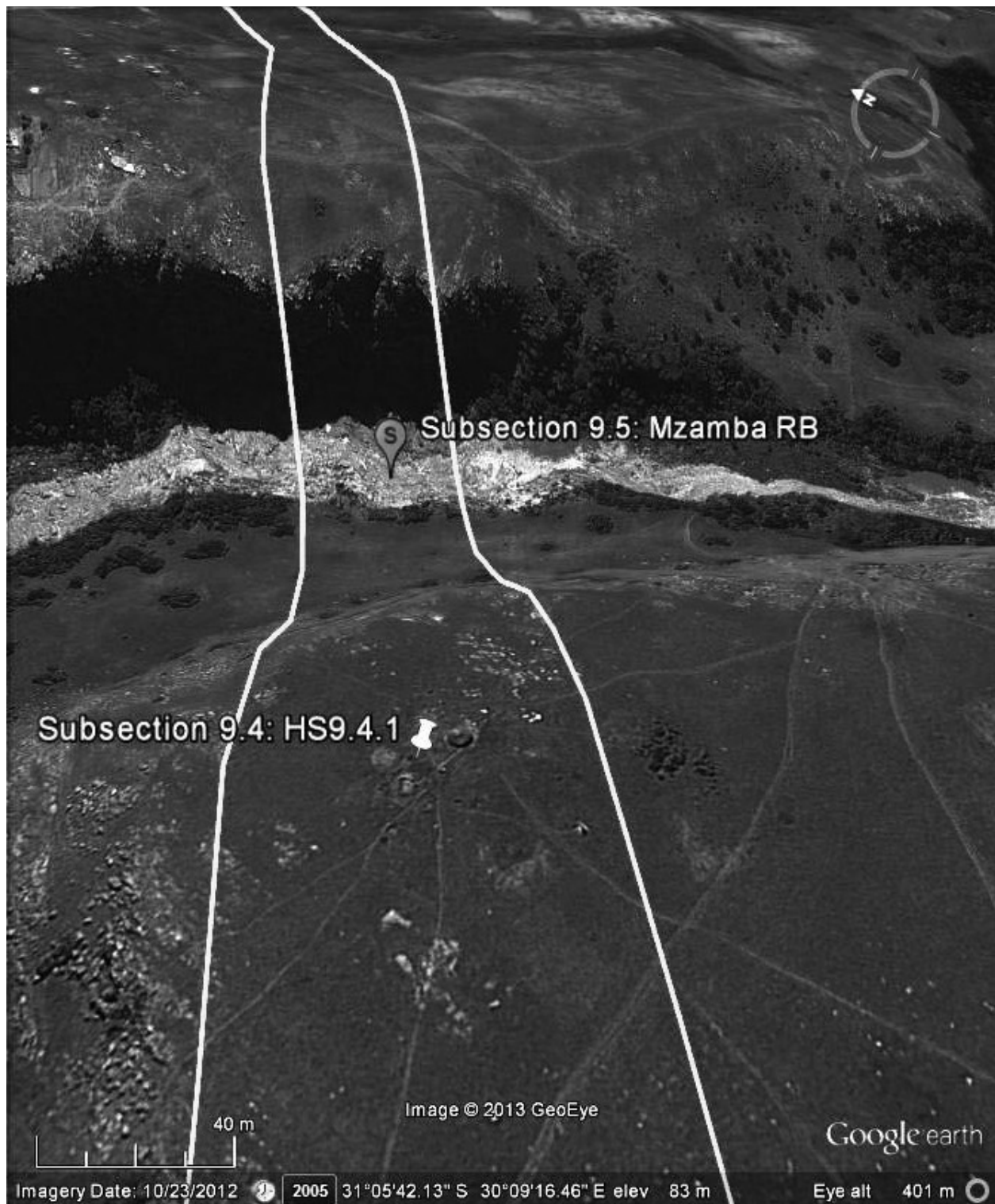


Figure 211. Subsection 9.4: Settlement landscape at the Mzamba River Bridge site (S). A network of footpaths connects the homestead within the road reserve (labelled HS9.4.1 in the SAS report) with the surrounding landscape and a crossing over the Mzamba River.

Google Earth imagery date 10/23/2012; ©2013. Viewed towards the north-east. Scale: 40 m.



Figure 212. Subsection 9.4: Location of the Mzamba River Bridge. No evidence of archaeological sites was found on the southern bank of the river.

Photo: SANRAL Heli IMG_4483.

- **Subsection 9.5: From the Mzamba River Bridge to the Casino Interchange**

Subsection 9.5 of the N2WCTH road reserve runs from the Mzamba River Bridge up to the Casino Interchange, between a built-up area towards the north-east, and agricultural fields, as well as estate land north of the Mzamba River, along the nearby coastline towards the east. Rural homesteads with adjacent agricultural fields near water courses can be seen on satellite imagery. No evidence of archaeological sites was observed along Subsection 9.5 of the road reserve, although a number of graves, of which one is located within the road reserve, are recorded in the Grave Audit List (see Figures 213 and 214).

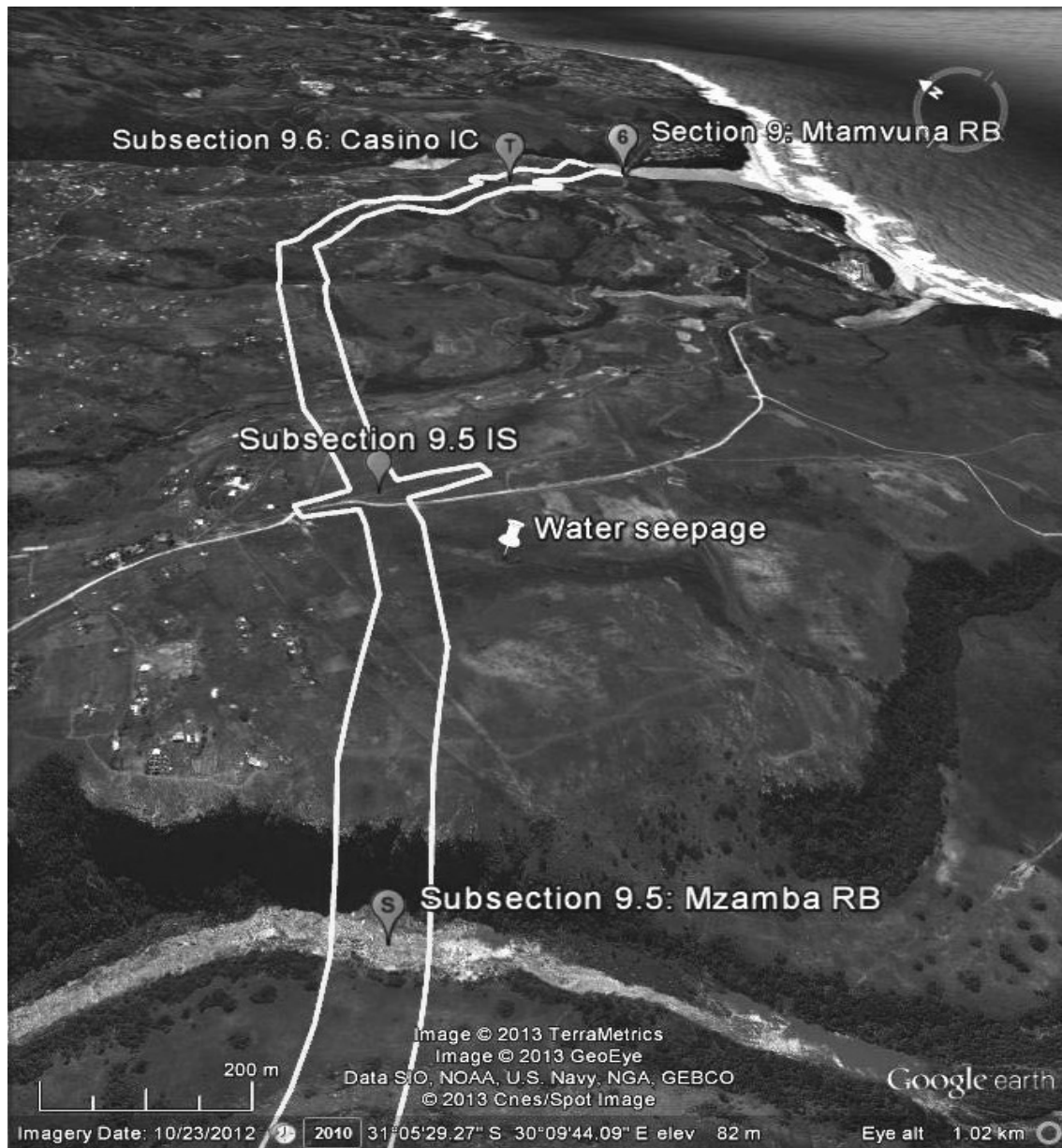


Figure 213. Subsection 9.5: The road reserve intersection in Subsection 9.5 in the landscape between the Mzamba River and the Casino Interchange, near a typical water seepage where there are signs of agricultural activity.

Google Earth imagery date 10/23/2012; ©2013. Viewed towards the north-east. Scale: 200 m.

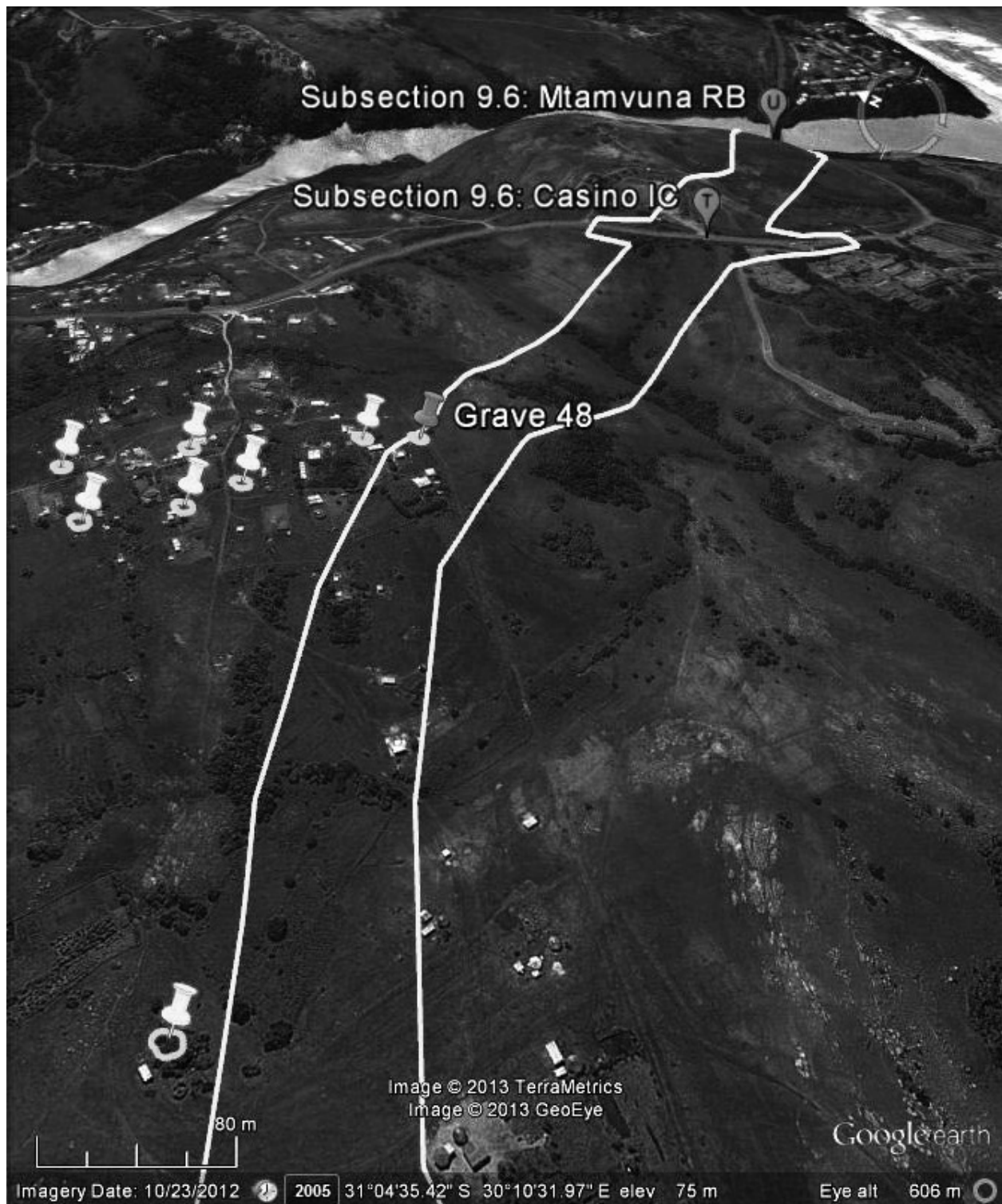


Figure 214. Subsection 9.5: Built-up area to the south-west of the Casino Interchange and graves as listed in the Grave Audit List.

Google Earth imagery date 10/23/2010; ©2013. Viewed towards the north-east. Scale: 80 m.

- **Subsection 9.6: From the Casino Interchange to the Mtamvuna River Bridge**

Subsection 9.6 of the N2WCTH road reserve includes the Casino Interchange at the crossing of the N2WCTH and the R6, and also the Mtamvuna River Bridge close to the river mouth in the vicinity of prehistoric (Pleistocene) coastal red dunes (see Figures 215 and 224). To the south of the site of the Casino Interchange, there are the remains of the former Mzamba Craft Market, and south of the R61, there is the Wild Coast Sun Hotel complex.

The construction site for the Casino Interchange is partially located on a red soil deposit and sandstone (see Figures 215 to 220). During the field survey, it was not clear whether this red soil deposit could be a red dune element and could therefore contain Stone Age artefacts. Road construction on the northern side of the Mtamvuna River and the road reserve will be adjacent to this known red dune and will require careful monitoring for Stone Age artefacts by the ECO.

During the SAS, spot checks on exposed land surfaces on the site of the Casino Interchange revealed no archaeological sites or cultural materials (see Figures 215 to 221). A number of graves recorded in the LAC's Grave Audit List are located in the town area to the south-west of the Casino Interchange, one of which is inside the road reserve (see Figure 214).

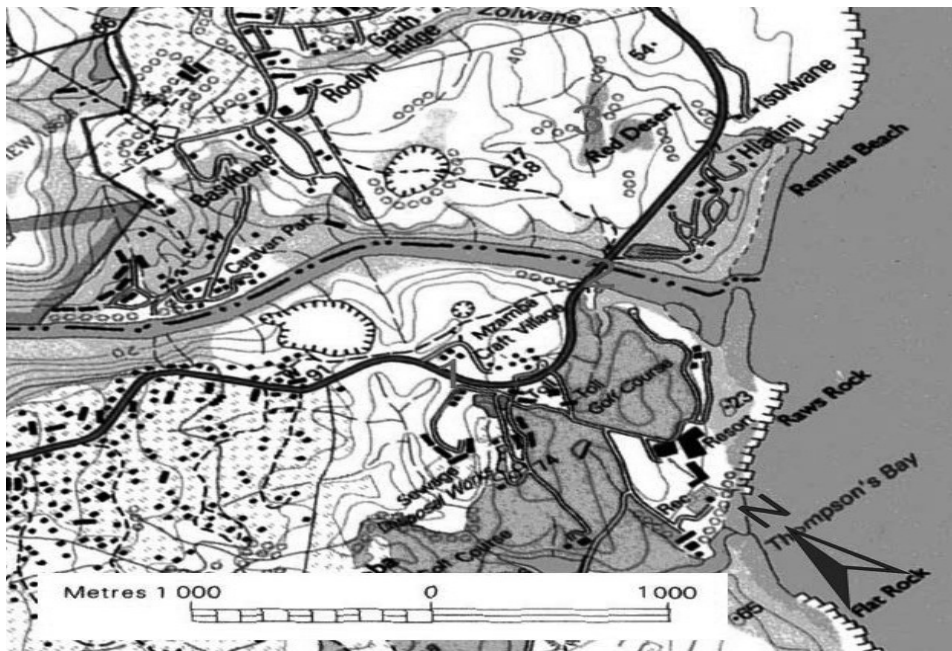


Figure 215. Subsection 9.6: Russet shading indicates the location of the coastal Pleistocene red dunes around the mouth of the Mtamvuna River and to the northwest of the Mtamvuna River Bridge (see Figures 216, 217, 223 and 224 below).

- 1 Subsection 9.6 (see Figures 216 to 222).
- 2 Mtamvuna River Bridge (see Figure 223).
- 3 Red dune (see Figure 224).

1:50 000 topo-cadastral map WGS3130AA & AB Port Edward (1993). Scale: 1000 m.

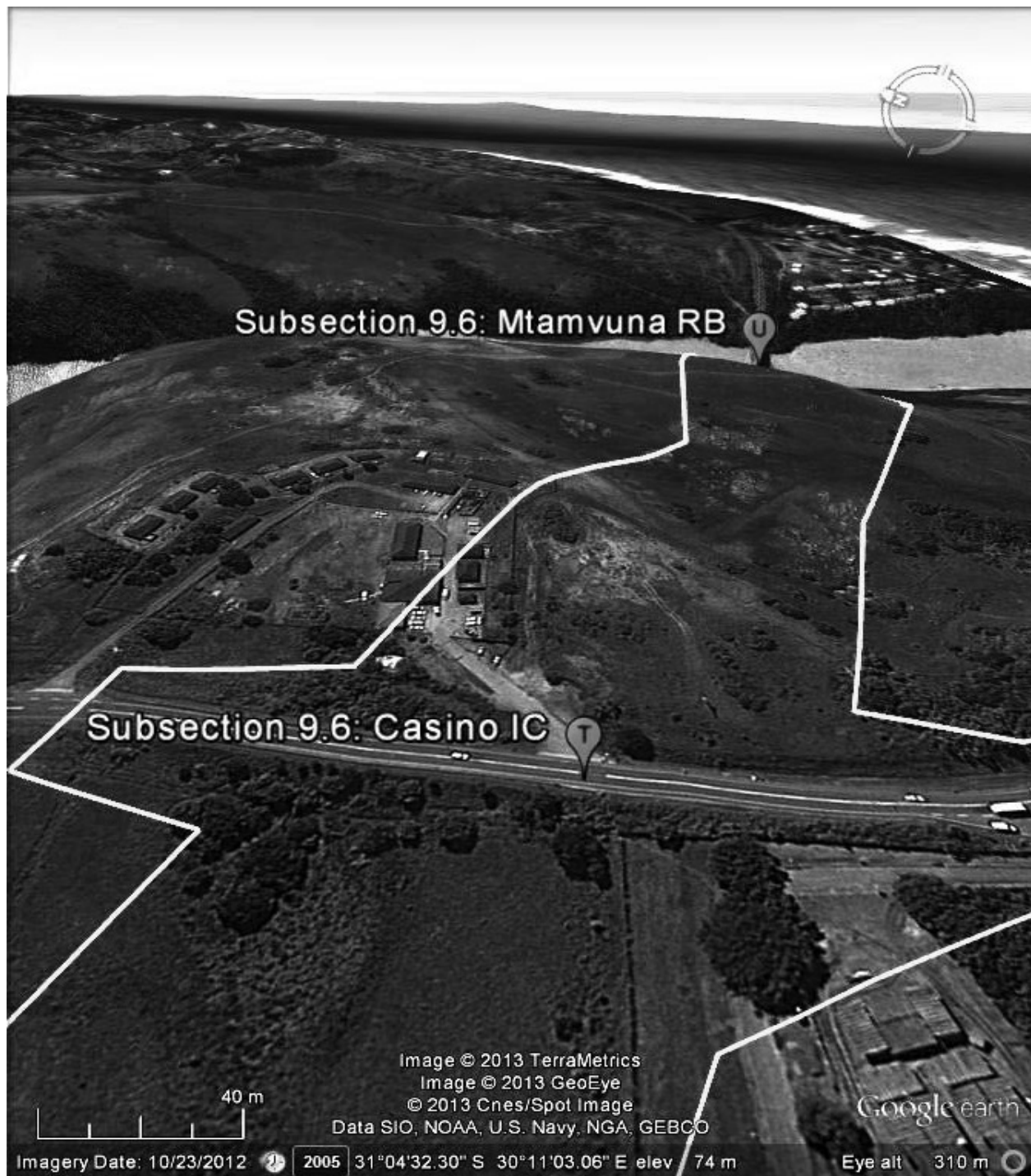


Figure 216. Subsection 9.6: Pleistocene red dune remains adjacent to the existing R61 north-west of the Mtamvuna River Bridge.

Google Earth Imagery date 10/23/2010; ©2013. Viewed towards the north-east. Scale: 40 m.

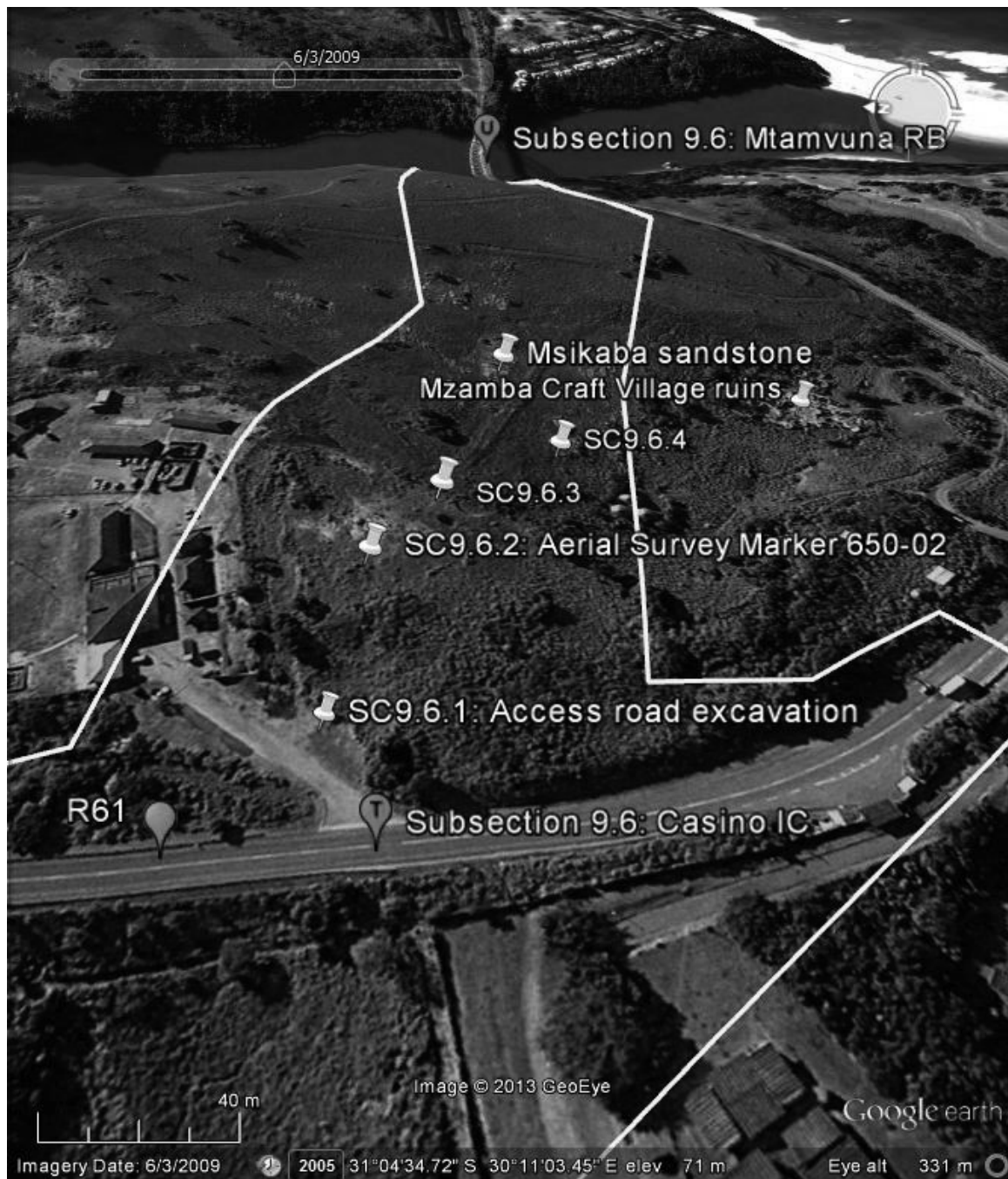


Figure 217. Subsection 9.6: Casino Interchange (also see Figures 218 to 222).

- SC9.6.1: Access road excavation (see Figure 218).
- SC9.6.2: Aerial Survey Marker 650-02 at 31° 4'33.21"S; 30°11'3.65"E (see Figure 219)
- SC9.6.3: Exposed land surface (see Figures 220, 221)
- SC9.6.4: Msikaba sandstone (see Figure 222)
- Mzamba Craft Village ruins (see Figure 222)

Google Earth Imagery date 6/3/2009; ©2013. Orientation: Viewed towards the east. Scale: 40 m.



Figure 218. Subsection 9.6. Spot check SC9.6.1. SAS vehicles parked in the access road excavation on the site of the Casino Interchange.

Photo: SAS DSC00062, October 2011. Photographed at $31^{\circ}4'32.76''\text{S}$; $30^{\circ}11'2.36''\text{E}$??.



Figure 219. Subsection 9.6. Casino IC. Spot check SC9.6.2. Aerial Survey Marker Reference 650-02. Remains of the abandoned Mzamba Craft Village in the background.

Photo: SAS DSC00061, October 2011.
Photographed at $31^{\circ}4'33.21''\text{S}$; $30^{\circ}11'3.65''\text{E}$



Figure 220. Subsection 9.6: Spot check SC9.6.3 Exposed surface on the site of the Casino Interchange.

Photo: SAS DSC00051, October 2011. Photographed from 31°4'33.75"S; 30°11'5.07"E.



Figure 221. Subsection 9.6: Exposed surface at spot check SC9.6.3. on the approved site of the Casino Interchange. Soil, polished dark stones and grass on a partially exposed rock surface.

Photo: SAS DSC00048, October 2011. Photographed at 31°4'33.76"S; 30°11'4.57"E.



Figure 222. Subsection 9.6: Casino Interchange. Spot check SC9.6.4. Exposed Msikaba sandstone. Mzamba Craft Village ruins to the left in the background.

Photo: SAS DSC00054, October 2011. Photographed at 31°4'35.00"S; 30°11'6.86"E.



Figure 223. Subsection 9.6: Helicopter view from the Casino Interchange site towards the existing (Mitchell) bridge over the Mtamvuna River.

Photo: SANRAL Heli IMG_4492.

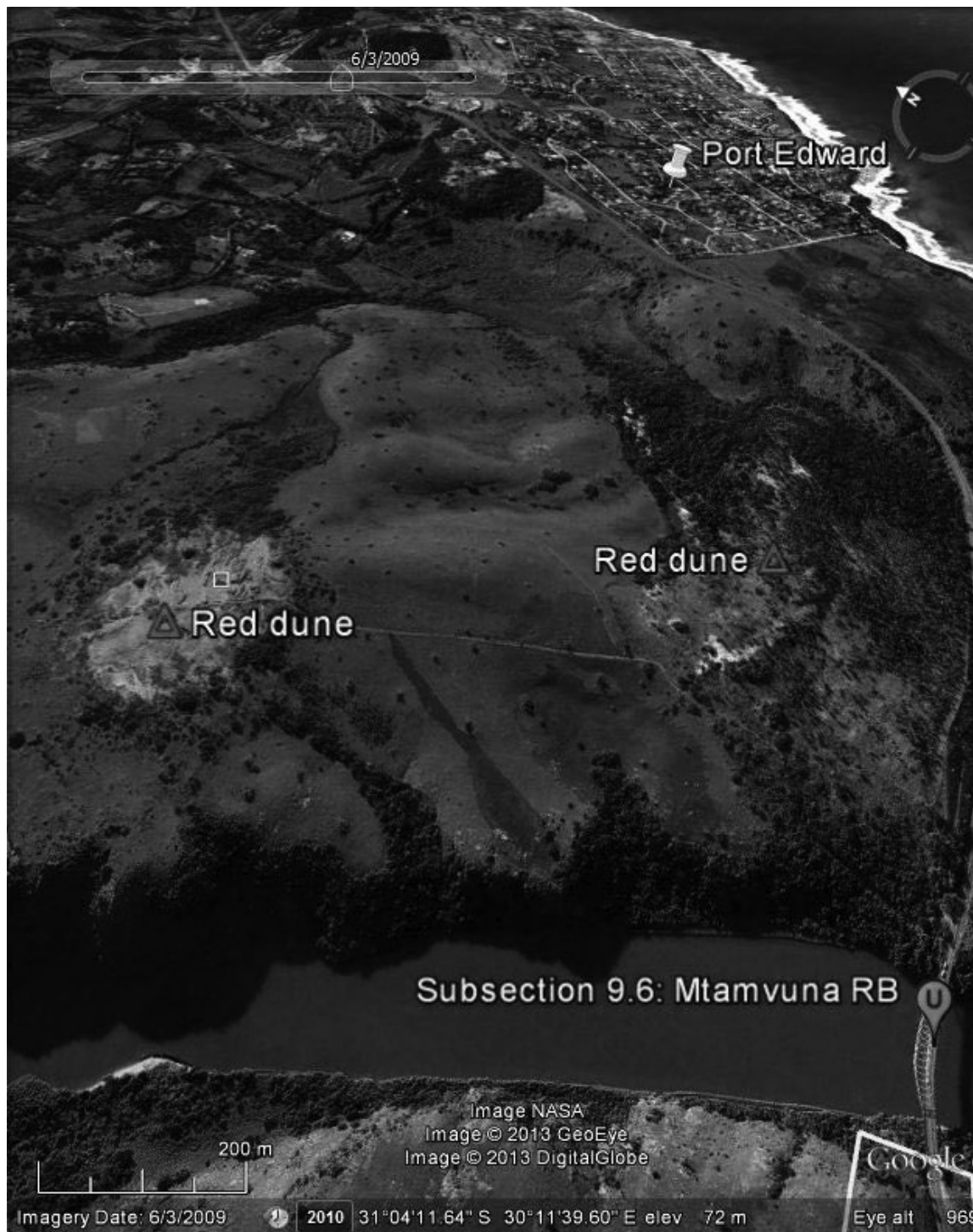


Figure 224. Subsection 9.6: The existing Mtamvuna River (Mitchell) Bridge and nearby Pleistocene red dunes on the northern side of the Mtamvuna River.

Google Earth imagery date 6/3/2009; ©2013. Viewed towards the north-east. Scale: 200 m.

3.5 Findings of the Supplementary Archaeological Survey

(a) Location of the N2WCTH reserve in relation to previously recorded archaeological sites

By confirming the geographic location of the proclaimed N2WCTH road reserve greenfields sections in relation to the locations of the identified archaeological sites and artefacts referred to in the previous AIA reports, it was established that all of these heritage remains are located outside the proclaimed N2WCTH road reserve, and will thus not be affected by the construction of the highway.

Details which confirm the above finding are the following (see Figure 2 below):

- (i) The historical trading store to the south-west of the Mzimvubu River located by Binneman (2002a:29, 2002b:2) and eThembeni Cultural Heritage (2008b:11) at 31°36'02"S; 29°29'14"E is positioned, according to satellite imagery, approximately 2.5 km to the east of the proclaimed N2WCTH road reserve, adjacent to the Alternative 1B route alignment which was assessed in the AIA reports.
 - (ii) The potsherds located by Binneman and eThembeni to the west and north of the Mzimvubu River Bridge site are outside the proclaimed N2WCTH road reserve. The details are the following:
 - The potsherds located by Binneman (2002a:29) at 31°31'53"S; 29°29'27"E near the existing Ntli Neck road north of the Mzimvubu River are located, according to satellite imagery, approximately 60 m to the east of the N2WCTH road reserve.
 - The scattered potsherds observed by Binneman (2002b:2) and also located by eThembeni (2008b:11) at 31°32'53.0"S; 29°28'42"E near Ngqotsini, to the west of the adjacent Mzimvubu River bend are located, according to satellite imagery next to the Alternative 1B route alignment, approximately 1 km to the west of the N2WCTH road reserve.
 - (iii) Coordinates were provided by eThembeni Cultural Heritage (2008b) for the King Faku burial heritage site in the vicinity of Section 6 of the NWCTH road reserve (the section of the road reserve from the Ntafufu Interchange up to and including the Magwa Interchange). The locality lies to the east of the existing Mzintlava River Bridge, as determined by eThembeni Cultural Heritage by means of Google Earth imagery, at approximately 31°25'36.93"S; 29°33'18.93"E (eThembeni 2008b: Appendix I). Current Google Earth satellite imagery indicates that this locality is positioned near or in a bend of the Mzintlava River on the northern side of the river, approximately 1.75 km to the east of the Mzintlava River Bridge and approximately 1.37 km to the east of the nearest point of the proclaimed N2WCTH road reserve.
- Note that Section 6 of the N2WCTH follows the existing R61 main road. Section 6 is not a greenfields section, and in that sense cannot pose a threat to the King Faku heritage site.
- (iv) The four stone cairns in the proclaimed Mpahlane River Bridge area that Binneman reported (Binneman 2002a) at 31°06'21"S; 30°08'10"E could not be found. Local inhabitants who were interviewed during the SAS were unable to confirm that such cairns previously existed in the area. Current Google Earth satellite imagery shows their recorded location to be outside, and some 120 m to the west, of the proclaimed N2WCTH road reserve.

(v) The proclaimed road reserve alignment at the Mnyameni River crossing is positioned well away from the rock shelters and the nearby site where Binneman (2002a) found the ceramic pot fragments in a ploughed field during a previous AIA survey. In line with the locations recorded during the previous AIA surveys, the locations of these rock shelters/caves are shown by current Google Earth satellite imagery to be the following:

- Rock Shelter Site 1 (31°08'51"S; 30°03'05"E) is situated approximately 415 m to the west of the road reserve.
- Rock Shelter Site 2 (31°08'52"S; 30°03'54"E) is situated approximately 600 m to the east of the road reserve.
- Rock Shelter Site 3 (31°08'54"S; 30°03'59"E) is situated approximately 750 m to the east of the road reserve.
- Rock Shelter Site 4 (31°08'55"S; 30°04'01"E) is situated approximately 800 m to the east of the road reserve.
- The site location of the potsherds (31°09'2"S; 30°03'49"E) is situated approximately 640 m to the east of the road reserve.

(b) Supplementary sites and features found and described during the SAS

(i) In the vicinity of Subsection 9.3 (which is the road reserve section from the site of the proposed Kulumbi River Bridge site up to and including the Mpahlane River Bridge site) on the southern side of the Mpahlane River ravine near the Mpahlane River and the Mpahlane River Bridge site, there are four previously unrecorded small stone mounds which are located safely outside the road reserve. They are located, according to current Google Earth satellite imagery, as follows:

- Outside and approximately 5 m to the east of Subsection 9.3, there are three of these mounds, located close together at approximately 31°06'25.6"S; 30°08'18.2"E. These mounds, which were not observed during the previous surveys, consist of rock fragments that appear to have been broken off a nearby rock outcrop not long ago. They must therefore be of recent origin. A local inhabitant explained that these were stone stockpiles for construction purposes.
- The fourth stone mound, located at approximately 31°06'22.2"S; 30°08'13.0"E, outside and approximately 40 m to the west of Subsection 9.3, appears to be older and smaller.

Note that because these mounds are located outside the proclaimed road reserve, they will not be affected by the road construction.

Note:

Although these four stone mounds which were discovered during the SAS are located in the same area as those reported earlier by Binneman (2002a, 2002b) and eThembeni Cultural Heritage (2008b), neither Binneman nor eThembeni Cultural Heritage located these four mounds and they did not mention them in their reports. According to SANRAL, neither the team which compiled the Land Audit Report nor the team which investigated the site of the proposed Mpahlane River Bridge and adjacent sections of the road reserve for the purposes of road and bridge construction, found any such structures in the area of the construction site. The stone mounds found there during the SAS are therefore likely to be of more recent origin, making it improbable that they are *isivivane* (stone mounds belonging to the Eastern Cape herder period or the Late Iron Age). One

possible alternative explanation for their presence is that they are piles of stones collected by local inhabitants for use elsewhere, as a local inhabitant stated to SANRAL personnel during the SAS.

- (ii) Two modern-type graves were observed at 31°06'28.8"S; 30°08'16.0"E, approximately 40 m outside and to the east of Subsection 9.3 (the road reserve section from the Kulumbi River Bridge site up to and including the Mpahlane River Bridge site) near an abandoned homestead to the south of the Mpahlane River Bridge site. These graves are probably recent, as they were not recorded during the land audit by MANCO (2003). The homestead consists of the ruin of a recently abandoned rondavel-type structure outside and approximately 6 m to the east of the road reserve.
- (iii) No other additional archaeological sites, features or artefacts were found during the SAS.

(c) Cultural landscapes, settlement patterns or traditions

- (i) Subsection 5.2 (the road reserve section from the Ndwalane Interchange up to, but excluding, the Mzimvubu River Bridge):

A farmhouse was located at 31°33'45.67"S; 29°28'40.01"E during the SAS satellite imagery survey and the SAS field survey. The house which is indicated as "Retreat" on the 1:50 000 topo-cadastral map (WGS3129CB Thombo, date 2004), is located within the historical British colonial enclave of privately owned farms. The farm is situated in the Mzimvubu River bend to the south of the proposed Mzimvubu River Bridge. The house is part of the existing commercial farm infrastructure. The original core structure of the house may be older than 60 years, but it seems to have been added onto substantially in more recent years. Apart from the house itself and possible historical household refuse dumps that may be associated with it, no historical colonial heritage remains have been identified or are expected in the greenfields road reserve sections.

- (ii) Subsection 5.6 (the road reserve section from Ntli Neck up to the Ntafufu Interchange):

Ntli Neck may be a possible Late Iron Age or historical period settlement location. An area in the vicinity of the existing Mntafufu River causeway and the proposed new Mntafufu River Bridge may possibly be a typical settlement locality for Early and Late Iron Age subsistence farmers, as it offers reasonable accessibility, gentle terrain, plentiful water resources and a flood plain consisting of alluvial soils suitable for agriculture. Although no archaeological evidence of human settlement has been found during the SAS, this site may possibly yield some Iron Age settlement remains such as potsherds or bone fragments during the construction phase. As a precaution, two potentially sensitive locations were identified at the site of the proposed Mntafufu River Bridge at 31°30'6.97"S; 29°30'40.01"E, and the location north-west of the Mntafufu River bend around 31°29'37.06"S; 29°31'3.74"E respectively. These locations therefore need to be regarded as potentially sensitive areas with regard to mitigation measures that may be required during the construction phase.

- (iii) Sub-section 9.6 (the road reserve section from the site of the proposed Casino Interchange up to and including the Mtamvuna River Bridge):

At the site of the proposed new Casino Interchange, a red soil deposit could possibly be the minor remains of a Pleistocene coastal red dune, in which case the deposits could

contain Early and Middle Stone Age artefacts. However, no such artefacts were found on the site during the SAS.

(iv) As recorded in the SANRAL Land Audit documentation (MANCO 2003) there are a number of existing homesteads (dwellings) that must be relocated from the proclaimed road reserve. This may include homestead units, graves, cattle kraals, wells, pipe and power lines and cultivated fields. Examples of such homesteads observed during the SAS field survey and on satellite imagery are located in a number of subsections, listed below as follows:

- Subsection 5.4 (the road reserve section from the Mzimvubu River Bridge up to and including Esipati Village): Esipati Village.
- Subsection 5.6 (the road reserve section from Ntli Neck up to the proposed Ntafufu Interchange): The Mntafufu River Bridge area.
- Subsection 8.2 (the road reserve section from the Kwadlambu River Bridge site up to and including the Mtentu River Bridge site): homesteads on the site of the proposed N2WCTH/Holy Cross-Mkambati Road Intersection.
- Subsection 9.1 (the road reserve section from the Mtentu River Bridge site up to and including the Mnyameni River Bridge site): homesteads recorded for reference purposes as HS9.1.1 to HS9.1.5.
- Subsection 9.3 (the road reserve section from the Kulumbe River Bridge site up to and including the Mpahlane River Bridge site): homesteads on the site of the proposed Kulumbe Interchange and homesteads recorded for reference purposes as HS9.3.1 to HS9.3.3.

(v) Historical evidence in the form of observations by 16th century European shipwreck survivors indicates that the Pondoland-Ugu Sandstone Coastal Sourveld on which a substantial part of the greenfields road reserve is located was sparsely inhabited (typically by scattered family units) during the Late Iron Age (Maggs 1989:39; eThembeni Cultural Heritage 2008b:33). This evidence is corroborated by similar observations of current settlement patterns during the SAS.

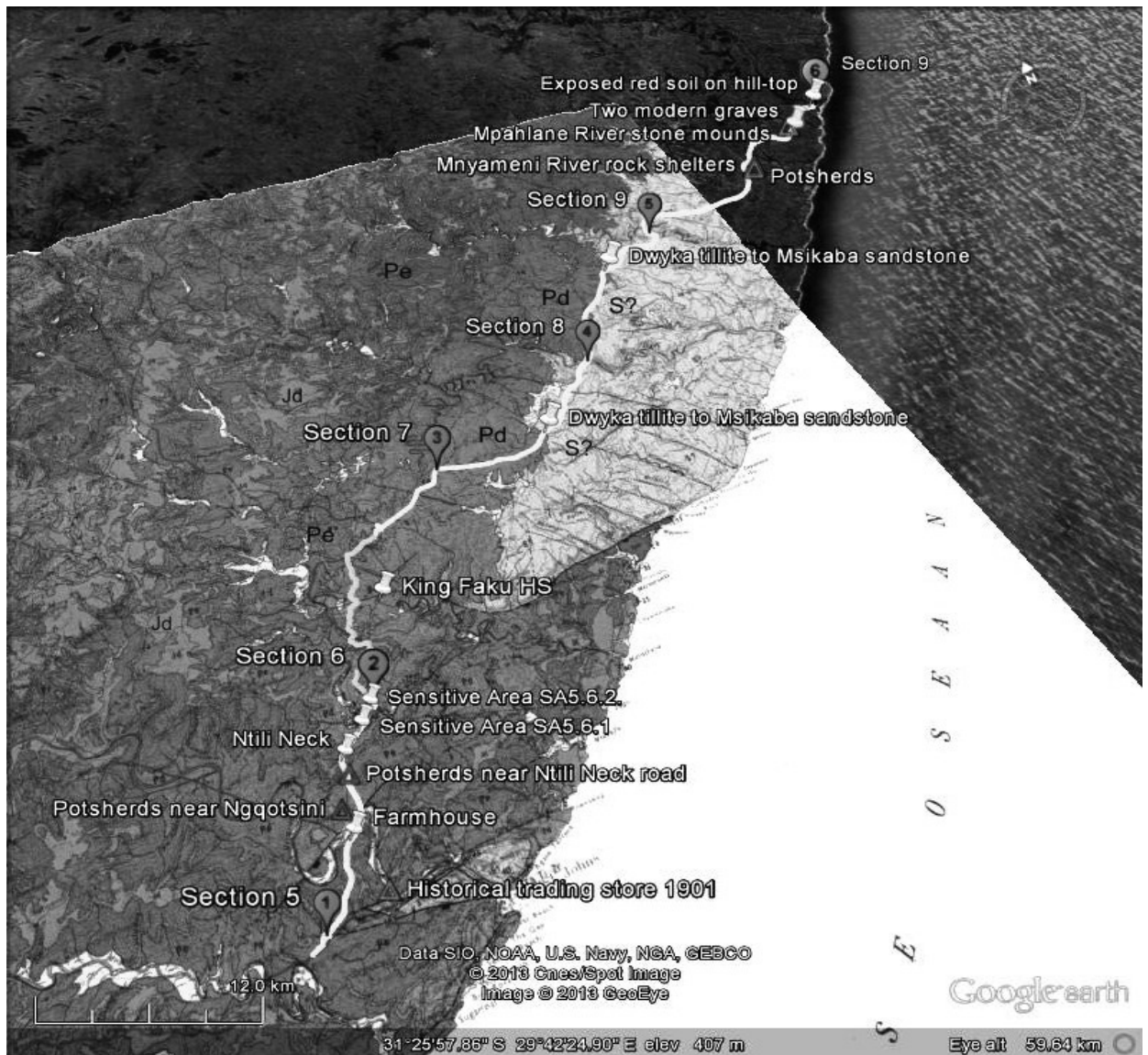


Figure 225. Sections 5 to 9 of the N2WCTH road reserve: the locations of the archaeological sites, which are all located outside the road reserve, and possible sensitive areas.

1 Section 5: Ndwalane IC to Ntafufu IC

- Historical trading store dated to 1901
- Farmhouse in the historical Port St Johns enclave
- Potsherds near Ngqotsini
- Potsherds near the Ntli Neck road
- Ntli Neck
- Possible sensitive areas SA5.6.1 and SA5.6.2

2 Section 6: Ntafufu IC to Magwa IC

- Indicated location of the King Faku heritage site

3 Section 7: Magwa IC to Msikaba RB (none)

4 Section 8: Msikaba RB to Mtentu RB (none)

IC = Interchange RB = River Bridge

5 Section 9: Mtentu RB to Mtamvuna RB

- Rock shelters near the Mnyameni River Bridge
- Potsherds near the Mnyameni River Bridge
- Stone mounds (*isivivane*) near the Mpahlane River Bridge
- Red soil on the hill within the Casino Interchange

Geology

S?: Msikaba sandstone

Pd: Underlying Dwyka tillite of the Dwyka Group

Pe: Overlying Eccca Group shale

Jd: Drakensberg Group dolerite

Google Earth imagery date: 2/20/2013; ©2013. Viewed towards the north-east. Scale: 12.0 km. With geological overlay.

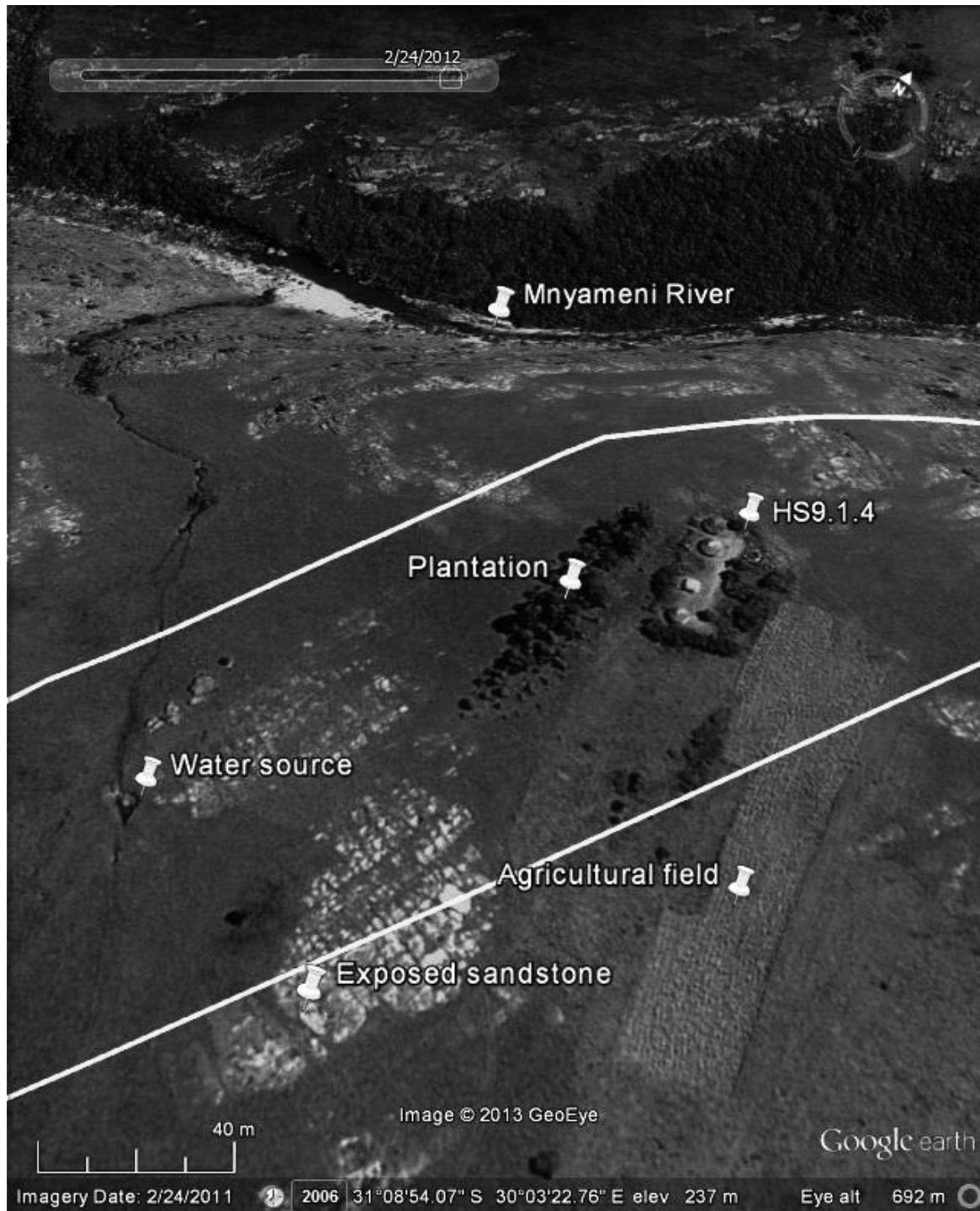


Figure 225. Subsection 9.1: A homestead, recorded during the SAS as HS9.1.4, featuring the typical subsistence farming settlement pattern of the area (also see Figure 226, below).

Google Earth imagery date: 2/24/2011; ©2013. Viewed towards the north-west. Scale: 40 m.

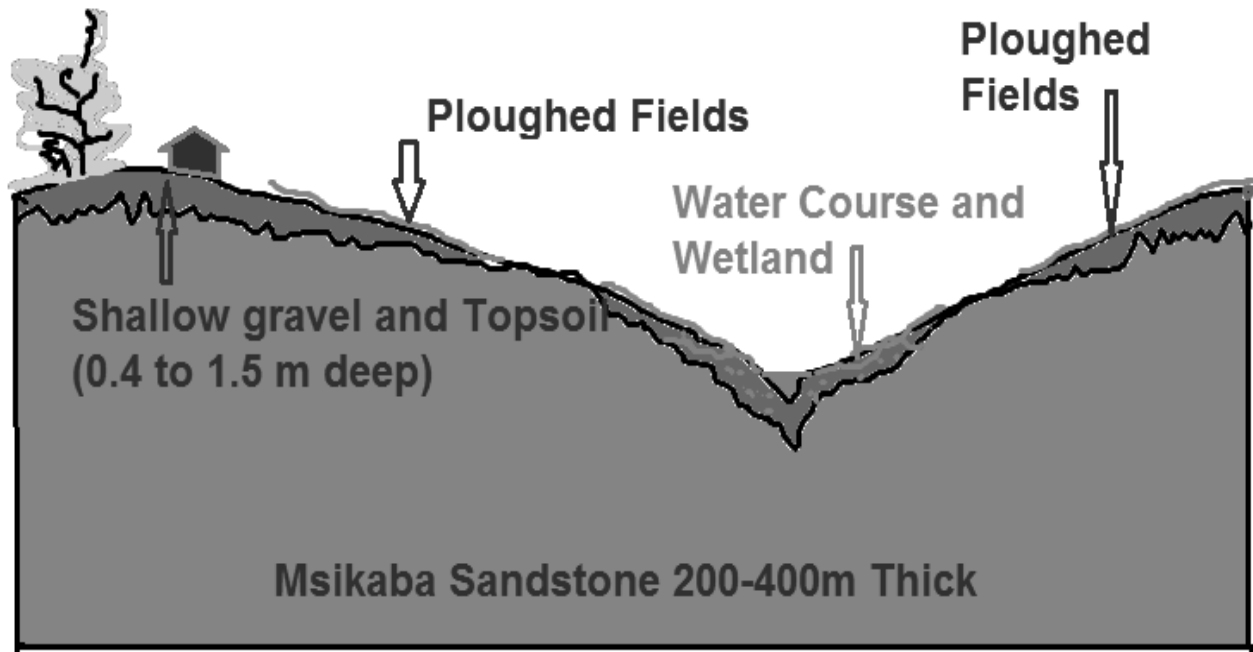


Figure 226. Current traditional subsistence farming settlement pattern, expected to be similar to local Late Iron Age practices.

3.6 Conclusions of the Supplementary Archaeological Survey

- (a) The proclaimed alignment of the N2WCTH greenfields road reserve will not have any impact on the known heritage sites and features identified during the previous archaeological heritage field surveys, and there are no immediate threats to these sites and features, all of which are outside the proclaimed road reserve.
- (b) The SAS did not reveal or uncover any additional cultural heritage resources within the proclaimed N2WCTH road reserve.
- (c) The only evidence of visible cultural landscapes or settlement patterns or traditions located within the proclaimed road reserve is the following:
 - (i) The core section of the existing farmhouse, located in Subsection 5.2 (the road reserve section from the site of the approved Ndwalane Interchange up to, but excluding, the Mzimvubu River Bridge) within the historical British colonial enclave of privately owned farms, may be older than 60 years. This core section should be further investigated and dealt with suitably by the Land Acquisition (LAC) team.
 - (ii) There are a number of existing rural homesteads/dwellings and associated graves, as recorded in the SANRAL Land Audit documentation, which must be
 - relocated from the proclaimed road reserve, which would be one of the LAC team's responsibilities; and
 - regarded as similar (to some extent) to Late Iron Age or colonial period homesteads, the remains of which may be discovered during land clearing or road construction, and

must be dealt with in the EMP and monitored for by the Environment Control Officer (ECO).

- (iii) The Pondoland-Ugu Sandstone Coastal Sourveld on which a major part of the greenfields sections of the road reserve are located was, and to some extent still is, sparsely inhabited.
- (d) Possible sensitive areas and terrain types within the N2WCTH road reserve where heritage resources may potentially be found during land-clearing and construction are the following:
 - (i) Subsection 5.3 (the Mzimvubu River Bridge site and Mzimvubu River flood plain at the site):

The alluvial floodplains and adjacent higher ground at the northern bend of the Mzimvubu River may be a sensitive area, in the sense that there are some indications of Iron Age farming activities. However, the proposed new Mzimvubu River Bridge will be constructed at a safe distance from these locations and will cross the river at a high elevation.

- (ii) Subsection 5.6 (the road reserve section from Ntli Neck up to the site of the approved Ntafufu Interchange):

The potentially sensitive areas at Ntli Neck are located in the area of the current soccer field, where Late Iron Age remains can be expected, and in the vicinity of the existing Mntafufu River causeway and approved Mntafufu River Bridge, where Early Iron Age and Late Iron Age settlement remains may be present.

- (iii) Subsection 9.1 (the road reserve section from the Mtentu River Bridge site up to and including the Mnyameni River Bridge site):

The few thin-walled potsherds found by Binneman (2002a, 2002b) at 31°09'2"S; 30°03'49"E to the south of the Mnyameni River, in the vicinity of the rock shelters and the site of the approved Mnyameni River Bridge, could possibly indicate evidence of a Late Iron Age settlement.

- (iv) Subsection 9.6 (the road reserve section from the Casino Interchange up to and including the Mtamvuna River Bridge):

The possible remains of Pleistocene coastal red dunes in Subsection 9.6 at the site of the proposed new Casino Interchange.

3.7 Recommendations of the Supplementary Archaeological Survey

In the light of the findings and conclusions of the SAS, it is recommended that the following be taken into consideration:

- (a) Specific heritage management guidelines and construction mitigation measures to be included in the EMP and to be referred to the appointed ECOs for their attention are as follows:
 - (i) Subsection 5.2 (the road reserve section from the Ndwalane Interchange up to the Ntafufu Interchange):

The age of the farmhouse located at 31°33'45.67"S; 29°28'40.01" in the Mzimvubu River bend south of the approved Mzimvubu River Bridge must be determined by the LAC team. If the house is older than 60 years, SANRAL must obtain the necessary permits for its demolition. During land clearing of the site, the ECO should routinely monitor for former rubbish and ash dumps which could contain cultural heritage material.

- (ii) Subsection 5.2 (the road reserve section from Ntili Neck up to the approved Ntafufu Interchange):

The following possible sensitive areas in the road reserve must be carefully monitored by the ECO for heritage resources such as potsherds, bone fragments, ash and human grave remains during the clearing of vegetation or topsoil and subsequent earthworks operations:

- Ntili Neck in the area of the current soccer field where Late Iron Age remains can be expected; and
- the vicinity of the existing Mntafufu River Bridge where Early Iron Age and Late Iron Age remains can be expected.

- (iii) Subsection 9.1 (the road reserve section from the Mtentu River Bridge up to and including the Mnyameni River Bridge):

To the south of the Mnyameni River in the vicinity of the rock shelters and the site of the approved Mnyameni River Bridge, where potsherds could possibly indicate evidence of a Late Iron Age settlement, construction phase measures must provide for monitoring the possible presence of heritage resources such as potsherds and human remains.

- (v) Subsection 9.3 (the road reserve section from the Kulumbe River Bridge site up to and including the Mpahlane River Bridge site):

The two modern type graves, which were observed at 31°06'28.8"S; 30°08'16.0"E, to the east of Subsection 9.3 near an abandoned homestead south of the Mpahlane River Bridge site, must be added to the Land Audit List of graves during the updating of the list and must be appropriately dealt with by the LAC team during the land acquisition process.

- (vi) Subsection 9.6 (the road reserve section from the Casino Interchange site up to and including the Mtamvuna River Bridge):

At the site of the approved Casino Interchange, the exposed red soil deposit, which could be the minor remains of a Pleistocene coastal red dune and could contain Early and Middle Stone Age artefacts, should be monitored for Stone Age artefacts during land-clearing and the construction phase.

- (b) SANRAL has completed its obligations in terms of the pre-construction conditions of the Record of Decision and SAHRA's requirements, therefore SANRAL may proceed with the land acquisition of the N2WCTH road reserve.
- (c) The relocation of identifiable and known graves in the proclaimed road reserve must be implemented as part of the land acquisition process. This relocation must be a separate process and must precede any construction activities.

- (d) The above recommendations must be included in the EMP in conjunction with the palaeontology mitigation measures specified in the palaeontology impact assessment report dated May 2012 (Gess 2012).

Chapter 4 Key conclusions and recommendations

A synthesis of the key recommendations and mitigation measures arising from the AIA Reports and Reviews and the SAS report is provided below.

(a) Heritage mitigation procedures of the N2WCTH project design phase prior to construction

- (i) EMP: The mitigation measures included in the EMP must be updated according to the recommendations of the Supplementary Archaeological Survey and must be implemented by the road construction contractors and workers in the event that any human and cultural heritage remains are discovered during construction activities.
- (ii) ECO: A full-time ECO is required on each construction site during vegetation-clearing and commencement of the construction, to monitor and manage human and cultural heritage remains that may be discovered.
- (iii) The ECOs, contractors and construction teams must be briefed, and where necessary must be trained, by an archaeologist regarding the relevant heritage legislation, heritage remains and mitigation measures. This briefing and training should be conducted in conjunction with the palaeontology mitigation briefing and training specified in the paleontological impact assessment report dated May 2012 (Gess 2012).

(b) N2WCTH project road construction phase: Routine monitoring and inspection

- (i) Monitoring: Constant monitoring by the ECOs of the construction sites and processes for investigating for the presence of human and cultural heritage remains is required.
- (ii) Possible sensitive areas: Selected construction sites in areas considered to be sensitive in terms of the presence of human and cultural heritage remains, such as the bridge sites where heritage remains have previously been found, may require inspection by an archaeologist after surface clearing.

(c) Management mitigation measures regarding the discovery of further heritage sites during construction:

- (i) In the event of the discovery of human and cultural heritage remains at any site, all work on that site must be stopped immediately and an archaeologist must be appointed to investigate the remains and to submit a report with the relevant findings.
- (ii) The ECOs and contractors must ensure that workers do not disturb, damage or collect any heritage material from any existing sites or from new sites that may be identified during the construction.

References

Publications

- Beinart, W. 1980. 'Production and the Material Basis of Chieftainship: Pondoland, c.1830-1880'. In: Marks, S. and Attmore, A. (eds). *Economy and Society in Pre-industrial South Africa*. London: Longman.
- Bergh, J.S. & Bergh, A.P. *Stamme & Ryke*. Kaapstad: Don Nelson.
- Boonzaier, E., Malherbe, C., Smith and Behrens, P. 2000. *The Cape Herders. A History of the Khoikhoi of Southern Africa*. Cape Town & Johannesburg: David Philip
- Deacon, H.J. and Deacon, J. 1999. *Human Beginnings in South Africa*. Cape Town: David Philip Publishers.
- Feely, J.M. 1987. 'The Early Farmers of Transkei, Southern Africa before A.D. 1870'. Oxford: *British Archaeological Reports International Series* No. 378.
- Frescura, F. 1981. *Rural Shelter in Southern Africa*. Johannesburg: Ravan.
- Gordon-Brown, A. 1975. *Pictorial Africana*. Cape Town: Balkema.
- King, L. 1982. *The Natal Monocline*. Pietermaritzburg: University of Natal Press.
- Maggs, T. 1984. 'The Great Galleon Sao Joao: Remains from a Mid-Sixteenth Century Wreck on the Natal South Coast'. *Annals of the Natal Museum* 26(1):173-186.
- Maggs, T. 1989. 'The Iron Age farming communities'. In: Duminy, A. and Guest, B. (eds) *Natal and Zululand from Earliest Times to 1910. A New History* pp. 28-48. Pietermaritzburg: University of Natal Press.
- McCarthy, T. & Rubidge, B. 2005. *The Story of Earth and Life*. Cape Town: Struik.
- McKenzie, B. 1984. 'Utilisation of the Transkeian Landscape – an Ecological Perspective'. *Annals of the Natal Museum* 26(1): 165-172.
- Meyer, A. 1998. *The Archaeological Sites of Greefswald*. Pretoria: University of Pretoria.
- Prins, F.E. and Granger, J. E. 1993. 'Early Farming Communities in Northern Transkei: the Evidence from Ntsitsana and Adjacent Areas'. *Natal Museum Journal of Humanities* 5:153-174.
- Van Aswegen, H.J. 1993. *History of South Africa to 1854*. Pretoria: Van Schaik.
- Van Warmelo, N.J. 1935. *A Preliminary Survey of the Bantu Tribes of South Africa*. Ethnological Publications Vol. V. Pretoria: Union of South Africa.
- Van Wyk, A.E. & Smith, G.F. 2001. *Regions of Floristic Endemism in Southern Africa*. Pretoria: Umdaus.
- Walton, J. 1956. *African Village*. Pretoria: Van Schaik.

Winter, S. and Baumann, N. 2005. *Guideline for involving heritage specialists in EIA processes: Edition 1*. CSIR Report No ENV-S-C 2005 053 E. Cape Town: Department of Environmental Affairs & Development Planning, Provincial Government of the Western Cape, Republic of South Africa.

Government Gazette Notices and Record of Decision

Department of Environmental Affairs, 2010a. 'Record of Decision for the Proposed N2 Wild Coast Toll Highway'. Letter from the Deputy Director-General: Environmental Quality and Protection, Department Environmental Affairs to the Chief Executive Officer, South African National Roads Agency.

Department of Environmental Affairs, 2010b. 'Record of Decision. Decision in Terms of Section 22(3) of the Environment Conservation Act 1989 with regard to the Undertaking of the Activity described below as required by Government Notice No. R. 1183 of September 1997'.

Government Notice No. R. 1183 of 5 September 1997. 'Proposed Construction of the N2 Wild Coast Toll Highway'. Reference Number 12/12/20/701. Pretoria. 19/04/2010.

Government Gazette Vol. 467 No. 26330. Pretoria. 7 May 2004.

Acts

South Africa. 1989. Environment Conservation Act No. 73 of 1989 (as amended). **Government Gazette No. 32267**. Cape Town. 27 May 2009.

South Africa. 1999. National Heritage Resources Act No. 25 of 1999. Government Gazette Vol. 1406, No. 19974. Cape Town. 28 April.

Unpublished reports and peer review

Binneman, J. 2001. 'Wild Coast Toll Highway: Cultural Heritage Sensitivity Scoping Report'. April. Appendix B. Grahamstown: Albany Museum. Prepared for Coastal & Environmental Services, Grahamstown.

Binneman, J. 2002a. 'A Preliminary Reconnaissance Archaeological Heritage Sensitivity Survey along the Proposed Route for the N2 Wild Coast Toll Road between Durban and East London: The Section between Tombo and Mtamvuna'. August. Grahamstown: Albany Museum. Prepared for Coastal & Environmental Services, Grahamstown.

Binneman, J. 2002b. 'Archaeological Heritage Sensitivity Survey'. September. Grahamstown: Albany Museum.

- CCA Environmental. 2009. 'Final Environmental Impact Report: Proposed N2 Wild Coast Toll Highway. Volume 1. Main Report'. December. Cape Town.
- Deacon, H.J. 2008. 'Environmental Impact Assessment of the Proposed N2 Wild Coast Toll Highway: Peer Review of Specialist Cultural and Historical Heritage Study'. 12 March. Stellenbosch.
- De Klerk, W.J. 2001. 'Transkei Toll Road. Scoping Study – Palaeontology'. Grahamstown: Albany Museum.
- De Klerk, B. 2002. 'N2 Wild Coast Toll Road Project – Potential Impacts on Palaeontological Sites'. Grahamstown: Albany Museum.
- Department of Environmental Affairs. 2010b. 'Record of Decision. Decision in Terms of the Environmental Conservation Act, 1989, with Regard to the Undertaking of the Activity Described'.
- eThembeni Cultural Heritage. 2008a. 'Heritage Impact Assessment of the Proposed N2 Wild Coast Toll Highway'. Pietermaritzburg: Ethembeni Cultural Heritage, 5 February.
- eThembeni Cultural Heritage. 2008b. 'Cultural and Historical Heritage. Final Draft Report. Heritage Impact Assessment of the Proposed N2 Wild Coast Toll Highway'. For CCA Environmental (Pty) Ltd. on behalf of the South African National Roads Agency Limited. 8 April.
- Gess, R. 2012. 'N2 Wild Coast Toll Highway Palaeontological Impact Assessment Report'. Grahamstown: Albany Museum. May 2012.
- Küsel, U. S. 2008. 'Assessment of the Cultural Heritage Resources on the Provincial Heritage Site of Tjate on the Farm Djate 249KT in Sekhukhune Limpopo Province'. July. <http://www.sahra.org.za/user>.
- MANCO, 2003. 'Land Audit on the Proposed Wild Coast Toll Road'. Prepared by MHP Consulting (Pty Ltd) trading as MANCO. 7 October.
- MANCO, no date. 'N2 Wild Coast Toll Highway Plan of Proposed Route & Tribal Authority Extents'.
- Van der Walt, J. & Fourie, W. 2005. 'Proposed Rand Water Bulk Water Supply Pipeline from Brakfontein Reservoir in Centurion to Barnardsvlei Reservoir near Rustenburg, Gauteng and North West Provinces Heritage Impact Assessment'. Figure 18, p54. <http://www.sahra.org.za/user>.
- Whitelaw, G. 1998. 'Desktop Assessment of the Archaeological Potential of Durban Outer West'. 29 May. Pietermaritzburg: Institute for Cultural Resource Management, Natal Museum. <http://www.sahra.org.za/user>.

Letters

- Department of Environmental Affairs. 2010a. 'Record of Decision for the Proposed N2 Wild Coast Toll Highway'. Letter to the South African National Roads Agency Limited. 19 April.

- eThembeni Cultural Heritage. 2010a. 'Proposed N2 Wild Coast Toll Highway Clarification of Heritage Assessment Methodology and Findings/Recommendations'. Pietermaritzburg. 18 March.
- eThembeni Cultural Heritage. 2010b. 'Assessment of Potential Heritage Impacts: N2 Wild Coast Toll Highway – Gonubie Interchange to Ngobozi / Ndwalane, Eastern Cape Province'. Letter to CCA Environmental, 6 September.
- Heritage Kwazulu-Natal. 2008. 'Re: Proposed N2 Wild Coast Toll Highway'. Letter to NMA Effective Social Strategists, 21 November. Pietermaritzburg.
- Merryweather Environmental (Pty) Ltd. 2008. 'Specialist Report on the Potential Impact of the Proposed N2 Wild Coast Highway on Soils, Land Use and Agriculture'. Cintsa East. March.
- SAHRA APM Unit. 2003. 'Review Comment on Archaeological/Palaeontological Impact Assessment'. 27 February. Cape Town.
- SAHRA APM Unit. 2007. 'Minimum Standards: Archaeological and Palaeontological Components of Impact Assessment Reports'. Last edited May 2007. Cape Town.
- SAHRA APM Unit. 2009a. 'Archaeological and Palaeontological Review Comment: Proposed N2 Wild Coast Toll Highway, Eastern Cape'. Letter to CCA Environmental, with attachment: 'Review Comment on Archaeological Impact Assessment', 21 August. Cape Town.
- SAHRA APM Unit. 2009b. 'Proposed N2 Wild Coast Toll Highway: Further Clarification and Recommendations'. Letter to CCA Environmental and the South African Road Agency, 14 December. Cape Town.
- SAHRA APM Unit. 2010a. 'Proposed N2 Wild Coast Toll Highway Environmental Impact Assessment'. Letter to CCA Environmental and SANRAL, 12 April. Cape Town.
- SAHRA APM Unit. 2010b. Letter to CCA Environmental and SANRAL, 15 July. Cape Town.
- SAHRA APM Unit. 2010c. Letter to CCA Environmental and SANRAL, 20 July. Cape Town.
- SAHRA APM Unit. 2012. 'Compliance to SAHRA Minimum Standards for Phase 1 Archaeological Assessments', 12 September. Cape Town.
- SAHRA BBG Unit. 2009. 'Draft Environmental Impact Report: Proposed N2 Wild Coast Toll Highway, Eastern Cape and Kwazulu Natal'. Letter to CCA Environmental (Pty) Ltd., 10 September. Braamfontein.

Post-graduate study

- Prins, F. 1993. Aspects of Iron Age Ecology in Transkei. Unpublished MA thesis: University of Stellenbosch.
- Van der Waal, C.S. 1977. Die Woning en Woonwyse onder die Venda. Ongepubliseerde Magisterverhandeling, Universiteit van Pretoria, Pretoria.

Internet

Frescura, F. (no date). A Venda Sketchbook. <http://www.sahistory.org.za/franco/indiginous-venda-sketchbook.html>.

Personal Comments

Harmse, A. W. 2012. Personal Comment. Head Office, The South African National Roads Agency Ltd. (SANRAL), Val de Grace, Pretoria.

Digital photographs

SANRAL: Series of aerial low altitude photographs.

Field survey: Canon 35mm camera digital photographs.

Satellite images

Google Earth based desk-top produced maps and views.

**N2 WILD COAST TOLL HIGHWAY
SUPPLEMENTARY ARCHAEOLOGICAL SURVEY
FIELD SURVEY CONDUCTED 24 TO 28 OCTOBER 011
FINAL REPORT DECEMBER 2012**

Appendices

Appendix 1. Draft Environment Management Plan (EMP): CRM sections

Appendix 2. Record of Decision (RoD)

Appendix 3. Correspondence from SAHRA

Appendix 4. Land Audit of Graves: List of graves within the N2WCTH road reserve

Appendix 1. Draft Environment Management Plan (EMP) CRM Sections

PROPOSED N2 WILD COAST TOLL HIGHWAY

EXTRACTS FROM ENVIRONMENTAL MANAGEMENT PROGRAMME (DRAFT) RELATING TO “HERITAGE MANAGEMENT”

“DESIGN” CHAPTER

4.3 HERITAGE IMPACT MANAGEMENT

In compliance with ROD Item 6.2.14.1, a heritage practitioner has been appointed to undertake a supplementary archaeological inspection of limited sections of the approved alignment, in different terrain types, with the objective of determining areas identified as sensitive in terms of the discovery of any heritage resources. The findings and recommendations of the supplementary inspection will be presented in a report which will be submitted to SAHRA for consideration. The report will provide further detail on monitoring that may be required in identified sensitive areas during the construction phase. Upon acceptance, relevant heritage impact management requirements stipulated by SAHRA will be incorporated into this EMP and into any relevant site-specific Construction EMPs, as appropriate.

The following heritage impact management measures are applicable to the design phase:

- Comply with the requirements of Section 36 of the NHRA, 1999 (Act No. 25 of 1999) (and associated guidelines) in terms of protection and/or relocation of graves. A permit application process will be required by the SAHRA Burial Grounds and Graves Unit (contact Troy Phili/Godfrey Tshivhalavhala at tel. no. 012 362 2535, e-mail tphili@sat.sahra.org.za/gtshivhalavhala@sat.sahra.org.za) for the exhumation and relocation of any graves that are believed to be 60 years or older (this would include graves of unknown date) – an archaeologist accredited to work with burial grounds and graves should be appointed to conduct the permit application process and the relocation process; the permit application process requires a public consultation process of 60 days and the provision of evidence of consent of any next of kin; and the permit application(s) will be considered by the specialist SAHRA Permit Committee for a decision on whether the application(s) can be approved or not;
- In terms of palaeontology, and as per SAHRA requirements, a palaeontologist was appointed to update the original palaeontological study and to investigate whether monitoring, etc. may be needed during construction for any road cuttings that were either highlighted as sensitive in the original specialist report or not assessed in that report – relevant requirements in this regard have been included in Section 5.21 of this EMP. According to the palaeontologist, it was deemed inappropriate to undertake a survey of the greenfields sections before commencement of construction due to their extreme inaccessibility as well as minimum current outcrop – rather, it was deemed that it would be far more productive to survey these areas during the late construction phase as the road works were likely to produce much more outcrop;
- Based on the findings of the updated palaeontological impact assessment (Gess, 2012), SAHRA issued a Decision (on 19 July 2012) which stipulates the following requirements:
 - A Phase 2 palaeontological impact assessment must be undertaken for the shale layers in the Eccra Group in the proximity of the Mngazi River;

- ❑ A Phase 2 palaeontological impact assessment must be undertaken on the significant palaeontological material (mostly fossilised bone) identified between East London and Mooiplaas in the Adelaide Subgroup;
- ❑ A Phase 2 palaeontological impact assessment must be undertaken on the already identified fossils along the section close to the Mbashe River in the Katberg Formation, Tarkastad Subgroup, Beaufort Group;
- ❑ For all Phase 2 palaeontological impact assessments, before any collections or excavations of fossil material may occur, the palaeontologist will require a mitigation permit in terms of Section 35 of the NHRA, 1999 (Act No. 25 of 1999). SAHRA will make further recommendations regarding the sites upon receipt of a satisfactory Phase 2 mitigation report. The specialist may also apply for a destruction permit on behalf of SANRAL after the submission to SAHRA of the final Phase 2 report; and
- ❑ A palaeontologist must train the ECOs in the identification of fossil material.
- A heritage practitioner should undertake induction and training of the ECOs and relevant site management personnel in the identification and monitoring/recovery protocols for heritage resources in general (including marked and unmarked burial grounds and graves); and
- Ensure that environmental induction/awareness courses for construction personnel include relevant heritage-related aspects to enable personnel to participate effectively in heritage resource management.

DEA must be kept abreast of all issues related to and discussed with SAHRA (ROD Item 6.2.14.2).

“CONSTRUCTION & OPERATION” CHAPTER

5.21 MANAGEMENT OF HERITAGE RESOURCES

SANRAL must ensure compliance with the relevant requirements of the NHRA, 1999 (Act No. 25 of 1999) and its Regulations (Government Notice No. R548 of 2 June 2000), the Human Tissues Act, 1983 (Act No. 65 of 1983) and the Exhumations Ordinance (No. 12 of 1980) during the construction and operational phases. Ongoing monitoring of potential impacts on heritage resources must be undertaken as construction activities proceed (see Appendix C).

As mentioned in Section 4.3, upon acceptance of the supplementary archaeological survey report, relevant construction-related heritage impact management requirements stipulated by SAHRA will be incorporated into this section of the EMP and into any relevant site-specific Construction EMPs, as appropriate.

5.21.1 Archaeological and historical sites and materials

Archaeological and cultural sites must be identified and fenced off in accordance with the requirements of the relevant heritage authority before construction commences.

If any evidence of archaeological sites or materials (e.g. remnants of stone-made structures, indigenous ceramics, stone artefacts, etc.) is found during construction in the absence of a professional archaeologist, all work in the immediate vicinity must be stopped. The Contractor shall notify the RE and ECO immediately and divert plant away from the archaeological site/material until an inspection by an accredited professional archaeologist has been completed. SAHRA shall immediately be informed in the event of such a find.

The contact details for SAHRA are as follows:

Attention: Dr Mariagrazia Galimberti
 111 Harrington Street, Cape Town, 8001
 P O Box 4637, Cape Town, 8000
 Tel: 021 462 4502; Fax: 021 462 4509
 Email: mgalimberti@sahra.org.za

Historical buildings, structures or features shall not be destroyed, damaged, excavated, altered or removed from its original position without formal permission given (a permit issued) by SAHRA. Offenders may be prosecuted.

5.21.2 Burial grounds and graves

Graves **younger than 60 years** fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance, No. 7 of 1925, the Human Tissues Act, 1983 (Act No. 65 of 1983) and the Eastern Cape Exhumations Act, 2004 (Act No. 4 of 2004), as appropriate. Such graves are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and applications for their alteration must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the MEC for Local Government and Planning, or in some cases the MEC for Housing and Welfare.

Authorisation for exhumation and re-interment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains the professional service provider/institution conducting the relocation should be authorised/registered under Section 24 of the Human Tissues Act, 1983 (Act No. 65 of 1983).

Graves **older than 60 years** (not in a municipal graveyard) fall under Section 36 of the NHRA, as well as the Human Tissues Act, 1983 (Act No. 65 of 1983). The procedure for Consultation regarding Burial Grounds and Graves (Section 36(5) of the NHRA) is applicable to graves older than 60 years that are situated outside a formal cemetery administered by a local authority (as per Chapter XI of the NHRA Regulations – Government Notice No. R548 of 2 June 2000). Graves in this category located inside a formal cemetery administered by a local authority will also require the same authorisation as set out above for graves younger than 60 years, over and above SAHRA authorisation.

If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

Exhumation and re-interment shall be carried out with all due procedures, ceremony and ritual as required. The compensation for re-interment, if applicable, shall be negotiated on an individual basis.

Previously unknown graves that are discovered during the course of construction must not be disturbed but must be protected immediately against further alteration or damage. SAHRA and the South African Police Services must be notified so that appropriate mitigation measures can be implemented (as per the requirements of Chapter XII of the NHRA Regulations - Government Notice No. R548 of 2 June 2000).

5.21.3 Palaeontological material

Based on the findings of the updated palaeontological impact assessment (Gess, 2012), SAHRA issued a Decision (on 19 July 2012) which stipulates the following construction-related requirements:

- Any road widening in the Mbashe River valley (Katberg Formation) must be monitored by a qualified palaeontologist;
- ECOs, trained by a palaeontologist, should monitor the following identified sensitive features:
 - ❑ Freshly exposed outcrops of the Ecca and Beaufort Group;
 - ❑ Shales in the Msikaba Formation; and
 - ❑ Possible outcrop of the Mzamba Formation.
- A palaeontologist should inspect any new road cuttings before rehabilitation occurs in order to identify possible exposure of palaeontological material.

Appendix 2. Record of Decision (RoD)



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Fedure Building · 315 Pretorius Street · PRETORIA
Tel (+ 27 12) 310 3911 · Fax (+ 2712) 322 2682

Reference: 12/12/20/701

Enquiries: Mr Danie Smit

Telephone: 012-310-3659 Fax: 012-320-7539 E-mail: dsmit@deat.gov.za

Mr Nazir Ali
The Chief Executive Officer
South African National Roads Agency Limited
PO Box 415
PRETORIA
7905

Fax: 012 362 2116

PER FACSIMILE / MAIL

Dear Mr Ali

RECORD OF DECISION FOR THE PROPOSED N2 WILD COAST TOLL HIGHWAY

Please find attached the record of decision in respect of your application for authorisation in terms of Regulations R1182 and R1183 (as amended) promulgated under sections 21, 22, 26 and 28 of the Environment Conservation Act (Act 73 of 1989). The environmental authorisation and reasons for the decision are attached herewith.

You are instructed to notify all registered interested and affected parties, in writing and within ten (10) calendar days of the date of this letter, of the Department's decision in respect of your application as well as the provisions regarding the lodging of appeals that are provided for in Government Notice No. R. 1183 Regulation 11.

A copy of the official appeal form can be obtained from:

Mr TH Zwane
Senior Legal Administration Officer (Appeals)
Tel: 012 310 3929
twane@deat.gov.za; or

Ms MM Serite
Legal Administration Officer (Appeals)
Tel: 012 310 3788
mserite@deat.gov.za

at the Department.

Should you wish to appeal any aspect of the decision, you must lodge an appeal with the Minister within 30 calendar days of the date of this letter by means of one of the following methods:

By facsimile: 012 320 7561;
 By post: Private Bag X447, Pretoria, 0001; or
 By hand: 2nd Floor, Fedsure Form Building, North Tower, cor. Van der Walt and Pretorius Streets, Pretoria.

Should you wish to appeal any aspect of this decision, you must notify and furnish copies of the appeal which will be submitted to the Minister, to all registered interested and affected parties. Proof of such notification must be submitted to the Minister with the appeal. Failure to comply with this provision may result in the Minister refusing to consider the appeal.

Please include the Department in the list of interested and affected parties, notified through your notification letter to interested and affected parties, for record purposes.

Yours faithfully



Ms Joanne Yawitch

DEPUTY DIRECTOR-GENERAL: ENVIRONMENTAL QUALITY AND PROTECTION

Department of Environmental Affairs

DATE: 19/04/2010

Cc:

Mr G Mahlalela Director-General: Department of Transport

Mr F Fredericks CCA Environmental

Ms Allan KZN DAEA

Mr A Mfenyana EC DEAET

Appeals Administrators DEA (see details above)

Fax: 012 328 5926

Fax: 021 461 1120

Fax: 033 343 4396

Fax: 040 609 4700

RECORD OF DECISION

DECISION IN TERMS OF SECTION 22(3) OF THE ENVIRONMENT CONSERVATION ACT, 1989 WITH REGARD TO THE UNDERTAKING OF THE ACTIVITY DESCRIBED BELOW AS REQUIRED BY GOVERNMENT NOTICE NO. R. 1183 OF 5 SEPTEMBER 1997

PROPOSED CONSTRUCTION OF THE N2 WILD COAST TOLL HIGHWAY

1. **REFERENCE NUMBER:** 12/12/20/701
2. **BRIEF DESCRIPTION OF ACTIVITY**

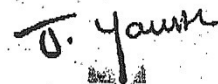
The project entails the construction of the N2 Wild Coast Toll Highway, which extends over a distance of approximately 560km between the Gonubie Interchange (near East London in the Eastern Cape) and the N2 Isipingo Interchange (south of Durban in Kwazulu-Natal). The width of the road servitude will vary, but will be approximately 80 metres. The road will follow a new route through the area known as the Wild Coast and will connect major centres, including East London, Butterworth, Idutywa, Mthatha, Ndwalane, Lusikisiki, Port Edward, Port Shepstone and Durban. The new route will be approximately 75km shorter than the existing N2 via Mount Frere, Kokstad and Harding.

The project aims to provide a national route that improves access and linkage to the east coast region of South Africa while reducing road-user costs and optimising safety, comfort and socio-economic benefits through:

- The upgrading and/or construction of the proposed route to a design speed of 90 – 120 km/h for the majority of its length, with the speed decreasing to 60km/h in limited sections only;
- The provision of a two-lane single carriageway with wide shoulders, while dual-carriageways and/or climbing lanes would be constructed where warranted by traffic volumes and capacity requirements;
- The construction and maintenance of appropriate safety devices such as fencing and vehicular/pedestrian/livestock over –or underpasses and walkways;
- The consolidation and formalisation of accesses onto the proposed toll road in order to ensure road-user safety (in terms of sight distances and provision of traffic turning lanes);
- The eradication of illegal access along the proposed route;
- The rehabilitation and overall improvement of the road surface along existing sections of the route;
- The implementation and maintenance of appropriate road signage, road furniture and roadside emergency facilities; and
- The provision of a well-maintained road reserve along the length of the proposed route.

The key components of the proposed project include:

- Upgrading and widening of existing road sections (of the N2 and R61) included within the proposed project (approximately 460km);
- new road construction within two greenfields sections (approximately 90km);
- construction of nine new bridges;
- upgrading and/or construction of new road interchanges and intersections; and
- construction of associated structures (such as toll plazas, pedestrian overpasses and animal underpasses).

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Approximately 80% of the proposed route utilises existing road alignments (i.e. sections of the existing N2 and R61 routes). This will affect the following sections of road:

- existing N2 between the Gonubie Interchange and Mthatha;
- existing R61 between Mthatha and Ndawalané;
- existing R61 between the Ntafufu River and Lusikisi; and
- existing R61 and N2 between the Mthamvuna River and the Isipingo Interchange.

The authorised activity can be described as follows as per the Final EIR dated December 2009:

- The upgrade of district road intersections along the entire route in order to provide turning slots and improve safety;
- The construction of feeder roads to provide access at new, safe and appropriate access points with a minimum spacing of approximately 1km;
- The construction of underpasses, overpasses, sidewalks, fencing, cattle grids and frontage roads, where required, in order to improve safety and provide grade separation accesses across the route;
- The construction and provision of public transport lay-byes at existing major intersections, where required and where possible and safe to do so;
- The construction of a new road between Ndawalané and Ntafufu, and between Lusikisi and the Mthamvuna River (the greenfields sections);
- The construction of seven (7) Mainline Toll Plazas (four in the Eastern Cape and three in KwaZulu Natal) and twenty-four (24) Ramp (interchange) Toll Plazas.
- The proposed Mainline Toll Plazas are as follows:
 - i. to the north-east of the Kei River cuttings, just outside Ngobozi – the Ngobozi Toll Plaza;
 - ii. in the Bashee Bridge region, close to the Candu River – the Candu Toll Plaza;
 - iii. in the vicinity of Ndwalane – the Ndwalane Toll Plaza;
 - iv. immediately north of the Mthentu River – the Mthentu Toll Plaza;
 - v. the existing Oribi Plaza between Izotsha and Umtentweni;
 - vi. just north of the Park Rynie Interchange – the Park Rynie Toll Plaza; and
 - vii. just south of the Isipingo Interchange – the Isipingo Toll Plaza.
- Ramp Toll Plazas are proposed as follows:
 - i. Ndwalane Interchange (southern ramps);
 - ii. Shelly Beach Interchange (existing Izotsha ramp plazas);
 - iii. Marburg Interchange (existing Oribi northern and southern ramp plazas);
 - iv. Umtentweni Interchange (existing Umtentweni ramp plazas);
 - v. Pennington Interchange (southern ramps);
 - vi. Park Rynie Interchange (southern ramps);
 - vii. Scottburgh Interchange (northern ramps);
 - viii. Umkomaas Interchange (northern ramps);
 - ix. Adams Road Interchange (southern ramps);
 - x. Moss Kolnick Interchange (southern ramps); and
 - xi. Joyner Road Interchange (southern ramps).
- Grade separation interchanges are approved as follows:
 - i. Komga Interchange;
 - ii. Ndabakazi Interchange;
 - iii. Elliotdale Interchange;
 - iv. Viedgesville Interchange;
 - v. Ndwalana Interchange;
 - vi. Ntafufu Interchange;

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- vii. Lusikisiki Interchange;
- viii. R61 (Mthamvuna Interchange);
- ix. Port Edward Interchange;
- x. Southbroom Interchange; and
- xi. Adams Road Interchange.

In terms of GN R1182 of 5 September 1997 (Schedule 1) as amended the listed activities applicable to the proposed project (or particular stretches of the route include the following):

- 1 (d) *The construction, erection or upgrading of roads and associated structures;*
- 1 (c) ii *With regard to any substance which is dangerous or hazardous and is controlled by national legislation – storage and handling facilities for any such substance [storage and handling of diesel and oil during construction, if required];*
- 2 (c) *The change of land use from agricultural or zoned undetermined use or an equivalent zoning to any other land use;*
- 7 *The reclamation of land, including wetlands, below the high-water mark of the sea and in inland waters; and*
- 9 *Scheduled processes listed in the Second Schedule to the Atmospheric Pollution Prevention Act, 1965 (No. 45 of 1965).*

Within the new road sections, new bridges are proposed at the Mzimvubu, Ntafufu, Msikaba, Kwadlambu, Mthentu, Mnyameni, Kulumbe, Mpahlane and Mzamba river crossings.

"Tolling" and the "structuring of toll fees" fall outside the ambit of environmental impact assessment (EIA) regulations and the jurisdiction of the Department. Socio-economic considerations associated with the tolling are adequately considered in the "intent to toll" process as provided for in the South African National Roads Agency Limited and the National Roads Act, 1998 (Act No. 7 of 1998). Any attempt by the department to address these issues through the EIA process would constitute unnecessary and unjustified duplication of effort between government departments. In addition, the Environment Conservation Act does not give the Minister or the department the competence to make decisions relating to the declaration of a toll road or the operation thereof.

In terms of section 27 of the South African National Roads Agency Limited and National Roads Act, 1998 (Act No. 7 of 1998), notification of intent to toll is the responsibility of the South African National Roads Agency Limited (SANRAL). Such notification will follow the environmental authorization. Issues related to the positioning of the toll plazas, fees, etc., other than the biophysical impacts, will be evaluated in terms of the said legislation.

3. LOCALITY

The road is located between the Gonubie Interchange near East London in the Eastern Cape and the Isipingo Interchange south of Durban in Kwazulu-Natal and extends over a total distance of approximately 560km as per the Final EIA report dated December 2009.

T. Yau
2010/01/20

4. APPLICANT

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0001

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5. CONSULTANT

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6. DECISION

Authorisation is granted in terms of section 22(3) of the Environment Conservation Act, 1989 (Act No. 73 of 1989) for the construction of the N2 Wild Coast Toll Road between Gonubie Interchange near East London (Eastern Cape) and the Isipingo Interchange south of Durban (Kwazulu-Natal) (a detailed description and location of the activity is given in the Final Environmental Impact Assessment report dated December 2009).

This authorisation is granted subject to the following conditions:

6.1 General conditions

- 6.1.1 This authorisation is granted only in terms of section 22 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) and does not exempt the holder thereof from compliance with any other legislation. Although authorisation is granted in terms of the ECA, your attention is drawn to Regulation 84(3) of the Environmental Impact Assessment ("EIA") Regulations (GN No. R385 of 21 April 2006 which commenced on 3 July 2006). This authorisation is therefore regarded as being an environmental authorisation issued in terms of NEMA and its regulations.
- 6.1.2 Authorisation of the activity is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.

T. Yamm

- 6.1.3 The holder of the authorisation shall be responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
- 6.1.4 This authorisation refers only to the activity as specified and described in the Final Environmental Impact Assessment (EIA) report and supporting documentation dated December 2009. Any other activity listed under the National Environmental Management Act (Act 107 of 1998), which is not specified above, is not covered by this authorisation, and must therefore comply with the requirements of the National Environmental Management Act (Act No 107 of 1998).
- 6.1.5 This development is also subject to the approval by the relevant local authorities in terms of any applicable legislation administered by those authorities.
- 6.1.6 Two week's written notice must be given to this department and the relevant provincial environmental departments before the commencement of construction activities. The notices shall make clear reference to the site location details and reference number given above. This notice must also contain proof of compliance with the conditions of this ROD as appropriate.
- 6.1.7 Two week's written notice must be given to this department and the relevant provincial environmental departments before the commencement of the operation of the road. The notice shall make clear reference to the site location details and reference number given above. This notice must also contain proof of compliance with the conditions of this ROD as appropriate.
- 6.1.8 The applicable conditions of this authorisation must form part of all contractors' and sub-contractors' conditions of contract. A performance-based requirement with regard to environmental impact management must be included in all contracts related to any aspect of this authorisation. The applicant must carry out regular environmental audits to establish compliance with the conditions of this authorisation and contracts. In the event of non-compliance the applicant must institute an appropriate penalty based on a 'penalty system' developed by the applicant and included as an annexure in the contract.
- 6.1.9 The applicant must, within 10 calendar days of receipt of this record of decision (ROD):
- a) Advertise the issuing of the authorisation in the Sunday Times, Daily Dispatch, Die Burger, Natal Mercury and Ilanga as well in the following publications: Pondo News, Kokstad Advertiser, Wild Coast Herald, Rising Sun, South Coast Herald, South Coast Sun. Should it not be possible to advertise within this period, due to it being a bi-weekly publication, the applicant must advertise in the next available edition of the relevant publication.
 - b) Inform all interested and affected parties registered during the EIA process of the decision through reasonable means such as broadcasts on community radio stations and notification of elected representatives (Councillors).
 - c) The above must state at least the following:
 - i) That an authorisation has been issued to the applicant to proceed with the construction of the N2 Wild Coast Toll Road.
 - ii) That any appeals against the issuing of the authorisation for the construction of the road must be lodged with the Minister of Water and Environmental Affairs within 30 days from the date on which the ROD has been issued to the applicant at the address stipulated in the authorisation.

T. Yamm

- iii) That an appeal questionnaire may be used in the lodging of an appeal. It is obtainable from Mr. TH Zwane at the department's offices at tel: (012) 310 3939 or e-mail: ptzwane@deat.gov.za or Ms. M Serite on tel: 012 310 3788 or email mserite@deat.gov.za.
- iv) The date on which the record of decision was issued to the applicant in terms of regulation 10(1) and the date by which appeals must reach the Minister.
- v) Where copies of the ROD can be viewed/obtained.
- vi) That the process to decide on the intent to toll this road is a separate process in terms of the South African National Roads Agency Limited and National Roads Act, 1998, and this process will occur subsequent to the EIA process and will include its own associated public participation process.

- 6.1.10 The applicant must notify this department and the relevant provincial environmental provincial departments, in writing, within 24 hours thereof if any condition of the authorisation is not complied with.
- 6.1.11 A copy of the authorisation, the Final EIA report dated December 2009 and the approved Final EMP must be available at the project site offices during construction and all staff, contractors and sub-contractors must be familiar with or be made aware of the contents of this authorisation.
- 6.1.12 Compliance/non-compliance records must be kept and must be made available on request from the authorities.
- 6.1.13 Any changes in the project that differ from what was authorised by this department, must be submitted to this department for approval prior to such changes being effected.
- 6.1.11 This department may add to, change and/or amend any of the conditions in this authorisation in such lawful and fair manner if, in the opinion of the department, the addition, change or amendment is environmentally justified.
- 6.1.12 In the event that the predicted impacts exceed the significance as predicted in the EIA report and supporting documentation, the authorisation may be withdrawn after the appropriate procedures have been followed.
- 6.1.13 In the event of any dispute concerning the significance of a particular impact, the opinion of the Department of Environmental Affairs (DEA) in respect of its significance will prevail.
- 6.1.14 This department and the relevant provincial environmental departments must be notified within 30 days thereof, of any change of ownership and/or project developer. Conditions imposed in this record of decision must be made known to the new owner and/or developer and are binding on the new owner and/or developer.
- 6.1.15 This department and the relevant provincial environmental departments must be notified of any change of address of the applicant.
- 6.1.16 National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority or organisation shall not be held responsible for any damages or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of approval as set out in this document or any other subsequent document emanating from these conditions of approval.

T. Yauw

- 6.1.17 The applicant shall be responsible for all costs necessary to comply with the above conditions unless otherwise specified.

6.2 Project specific conditions

6.2.1 Administration

- 6.2.1.1 The following documentation/plans must be implemented, adhered to and strictly enforced:

- conditions of this ROD;
- the mitigation measures and recommendations contained in the Final EIA report and supporting documentation dated December 2009;
- the final construction and operational environmental management plans (EMPs); and
- any other subsequent documentation that requires approval.

- 6.2.1.2 All recommendations contained in the Final EIA report and supporting documentation dated December 2009, which are not covered explicitly under the conditions contained in this ROD, must be regarded as conditions in terms of this ROD.

- 6.2.1.3 Copies of all permits or licenses issued to the applicant that have relevance to the environment, must be provided to this department for record purposes. The relevant environmental conditions of these permits or licences must be incorporated into the final construction and operational Environmental Management Plans (EMPs).

- 6.2.1.4 The conditions of this ROD, the mitigation measures and recommendations contained in the Final EIA report and supporting documentation dated December 2009, and the final approved construction and operational EMPs and/or any other subsequent submitted approved documentation/method statements/plans, shall be a legally binding component of any contract and must therefore be legally enforceable.

- 6.2.1.5 The land acquisition process must be conducted in terms of section 25 of the Constitution. The land acquisition process where relocation of settlements, communities and assets will take place (including compensation) must be finalised before construction on these specific sections of the road commences. A detailed Relocation Action Plan must be developed in consultation with the directly affected parties, including traditional leaders as well as the relevant authorities prior to the resettlement of communities or assets. The latter must be submitted to this department for record keeping purposes.

- 6.2.1.6 The intent-to-toll process must take cognisance of the environmental issues identified in the Final EIA report dated December 2009. Additional environmental impacts associated with the outcome of the tolling process that requires additional mitigation must be incorporated in the construction and operational EMPs.

- 6.2.1.7 Construction activities must, as far as possible, be scheduled to take place during the lowest rainfall season, when flows are the lowest and inundation is limited.

- 6.2.1.8 SANRAL must ensure that key policies and plans around the employment, empowerment and skills development of local people are developed to effectively manage the key social issues associated with the proposed project.

T. Yank

6.2.2 Compliance with other legislation

6.2.2.1 This authorisation refers only to the activity as specified and described in the Final EIA report dated December 2009. Any other listed activities in terms of the National Environmental Management Act (Act 107 of 1998), which are not specified above, is not covered by this authorisation and must therefore comply with the NEMA Regulations, Government Notice 386 and 387 of 2006.

6.2.2.2 Provisions of the relevant legislation that must be complied with by the holder of this authorisation includes, but is not limited to:

- The requirements of Chapter II, Section 38(1), (3) and (7) of the National Heritage Resources Act, 1999 (Act 25 of 1999), including the comments and recommendations of the relevant heritage resources authority responsible for the area in which the development is proposed.
- All provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).
- All provisions of the National Water Act, 1998 (Act 36 of 1998).
- All provisions of the National Forest Act, 1998 (Act No 84 of 1998) as amended.
- All provisions of the National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004).
- All provisions of the National Environmental Management: Protected Areas Act, 2003 (Act 57 of 2003) and its Regulations.
- No prospecting or mining activities or extraction of any material shall be conducted within the proposed project area, or in relation to the proposed project without necessary authorisations in terms of the Minerals and Petroleum Resources Development Act (Act 28 of 2002). Should fill material be required for any purpose, the use of borrow pits must comply with the provisions of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) administered by the Department of Mineral Resources.
- A permit shall be obtained from the relevant nature conservation agency for the removal or destruction of indigenous protected and endangered plant and animal species. At all times the principles of search and rescue of species must be explored prior to destruction.
- All provisions of the Noise Control Regulations: Environment Conservation Act, 1989 (Act No. 73 of 1989).
- All provisions of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).
- All provisions of the Hazardous Substances Act and NEM: Waste Act.
- All provisions of the NEM: Air Quality Act.
- All provisions of the National Roads Act 1998 (Act No. 7 of 1998).
- All provisions of the Policy Principles and Guidelines for Control of Development Affecting Natural Forests.

6.2.3 Monitoring and auditing

6.2.3.1 A monitoring and auditing programme must be developed and implemented to assess compliance with the conditions stipulated in this ROD, the EMP and any other required plans prior to construction taking place. This monitoring and auditing programme must be included in the final construction and operation EMPs.

T. Yauw

- 6.2.3.2 This department reserves the right to monitor and audit the development throughout its full life cycle to ensure that it complies with the conditions of this ROD and other relevant provisions. Records of monitoring and/or auditing must be made available for inspection to any relevant authority inspecting the development. Should monitoring and audit results indicate that there are significant detrimental environmental impacts or non-compliance with the construction and operational EMPs and/or any other required plans/method statements, and/or with the conditions of this ROD, this department reserves the right to take appropriate action.
- 6.2.3.3 The monitoring and auditing of the construction and operation of the activity shall be in accordance with the monitoring and auditing programme or any amendment thereof as approved by the relevant environmental authorities.
- 6.2.3.4 The applicant must ensure that adequate and competent environmental staff is on site at any construction activity during the initial construction work and during subsequent construction activities during the concession period.
- 6.2.3.5 The applicant must appoint **Independent** Environmental Control Officers (ECOs) for the duration of the project. The role of the ECOs is to:
- Help individual employees to meet their immediate responsibility for the environmental management within his or her area of work. Managers and supervisors of line functions are ultimately responsible for environmental management, not the environmental control officer who is an adviser, coordinator, facilitator and guide.
 - Oversee and monitor adherence to and implementation of the final construction EMP, method statements and other required plans as well as compliance with the relevant conditions contained in this ROD and the mitigation measures, recommendations and conditions stipulated in the Final EIA report and its supporting documentation dated December 2009.
 - Report to the project environmental manager (PEM), the environmental monitoring committee (EMC) and the authorities coordinating committee (ACC) on a regular basis as decided by these parties in the form of an environmental management compliance report.
 - The cost of the ECOs will be born by the applicant.
- 6.2.3.6 The ECOs must maintain the following on site:
- A daily site diary;
 - A non-conformance register;
 - A public complaints register; and
 - A register of audits.
- 6.2.3.7 The ECOs must be suitably qualified and the terms of reference of the ECOs must comply with the requirements of the draft EMP and any subsequent amendments approved by the department. The name and contact details of the ECOs must be announced and forwarded to this department before construction commences.

T. Yamm

6.2.3.8 The applicant must appoint a project environmental manager (PEM) for the planning and construction phases of the project. The PEM must be an **independent** consultant and must be permanently on the site to support and assist the ECOs during the period of construction. The qualifications and terms of reference of the PEM must comply with the following requirements:

- Have a tertiary qualification in the natural sciences and a proven track record in environmental contract management on large projects. Assist the ECOs to formulate the most effective and structured monitoring and reporting strategy, tailored to the conditions of the contract.
- With the ECOs, review the method statements prepared by the applicant or his/her contractor, in compliance with the final construction EMP, and ensure that these are sufficient to meet the outcomes that are required.
- Assist the ECOs to prepare the monthly monitoring reports.
- Report to and discuss with the relevant authorities any significant non-compliance by the applicant and the steps to be taken to rectify this.
- Interact with and provide all necessary assistance to the environmental auditor to complete the tasks required for the quarterly independent audits.

6.2.3.9 The applicant must appoint an **independent** environmental auditor to audit the final design as well as to audit construction activities. The auditor must be an **independent** consultant registered as an auditor with a recognised agency. The auditor must prepare quarterly audit reports during the construction phase, which must be distributed to this department, the relevant provincial environmental departments, the ACC and the EMC. The audit reports must be public documents and must be available to interested and affected parties on request.

6.2.3.10 Independent specialist consultants must be called upon when, in the opinion of the project environmental manager, environmental auditor, the ACC or this department, there is a need for expert opinion during the monitoring of the construction and the operation phases.

6.2.3.11 A post construction environmental audit must be carried out by the **independent** environmental auditor and the audit report must be submitted to this department, the relevant authorities and the ACC within 30 days after completion of the said audit. This audit must, as a minimum, evaluate adherence to the relevant conditions contained in this ROD and other provisions. This audit must indicate any evidence of accelerated erosion or infestation by alien invasive plant species caused by construction, the severity of these problems and how they should be managed.

6.2.3.12 After completion of the construction, the audit must be repeated annually. If the audits show no significant problems, they may be discontinued at the discretion of this department, or may be limited to the specific areas and or timeframes where problems require ongoing monitoring and action by the applicant after the initial five-year period.

T. Yauk

6.2.4 Authorities coordination committee (ACC)

6.2.4.1 The applicant shall convene an authorities coordination committee quarterly or as agreed upon with this department during the planning and construction phase of the project and shall in addition to representation from the ECOs, invite representation from the following authorities:

- Department of Environmental Affairs (this department);
- Kwazulu-Natal Department of Agriculture and Environmental Affairs (DAEA);
- Eastern Cape Department of Economic Development and Environmental Affairs (EC-DED&AF);
- Department of Water Affairs (DWA);
- Department of Agriculture, Fisheries and Forestry (DAFF);
- Department of Minerals (DM);
- Ezemvelo KZN Wildlife;
- Eastern Cape Parks Board;
- South African National Parks;
- Relevant local authorities; and
- South African Heritage Resources Agency (SAHRA).

The PEM shall fulfil the role of Secretariat of the ACC. This committee shall serve as a forum for the discussion and coordination of project related issues and for timeous dissemination of information about progress on the project to the key authorities. The composition of the committee may be changed if circumstances justify it.

6.2.5 Environmental monitoring committee (EMC)

- The applicant must establish an environmental monitoring committee (EMC) for the duration of the construction phase.
- The EMC must meet on a quarterly basis or as decided by the members of the EMC.
- The EMC must be chaired by an **independent** chairperson appointed by the EMC and must consist of representatives of the key authorities (i.e. DEA, relevant provincial environmental authorities, Department of Water Affairs and relevant local municipalities, etc), the ECO, a representative of the Tribal Authorities and the main contractor.
- The applicant must supply the secretariat services for the EMC.
- The EMC must report to the Director: Environmental Impact Management at DEA from the start of the project until such time as the completed works is handed over to the applicant for operation.
- All costs associated with the functioning of the EMC and secretariat services shall be borne by the applicant.

The purpose of the EMC would be to execute the following:

- a. To monitor and audit the project compliance with specific conditions of this environmental authorisation and the requirements of the approved environmental management plan (EMP).
- b. To make recommendations to the Director on issues related to the monitoring and auditing of the project implementation.
- c. To advise the department on issues related to non-conformance reports (NCRs) raised against the applicant by the ECO.

T. Yaw

6.2.6 Environmental Performance

- 6.2.6.1 Asphalt plants are considered scheduled processes listed in the second schedule to the NEM: Air Quality Act. Should the use of an asphalt plant be required on site, the applicant must obtain the necessary permits from the relevant local authority.
- 6.2.6.2 The applicant must provide high standard warnings and traffic calming measures where construction activities interfere with traffic.
- 6.2.6.3 The applicant must implement dust abatement measures, such as wetting of active construction areas and unpaved roads and the vegetation of the permanent stockpiles.
- 6.2.6.4 The applicant must take note that no site camps will be allowed outside the footprint of the development area as the establishment of such structures may trigger a listed activity as defined in the NEMA Regulations, Government Notice 386 and 387 of 2006.
- 6.2.6.5 The applicant must provide sanitation facilities within the construction camps and along the road to ensure that workers do not pollute the surrounding environment.
- 6.2.6.6 The applicant must ensure that construction activities are limited to daylight hours (06h00 – 18h00), Mondays to Saturdays, where the alignment passes through or close to residential areas. No construction work may be undertaken close to residential areas on Sundays.
- 6.2.6.7 The applicant must submit site development plans to the department and the relevant provincial departments for acceptance prior to commencement of construction and must, among others, contain the maximum width of the lanes and the maximum width of the platforms to ensure that the level of disturbance is limited to only what is required and that it is defined prior to the commencement of construction.
- 6.2.6.8 The detail of effective protection, measured around drainage infrastructure must form part of the site development plan.
- 6.2.6.9 The applicant must ensure that an air quality buffer zone, as well as noise and light mitigation measures are established where the road passes through or close to residential areas. The latter could include, but is not limited to, the construction of earth berms and noise barriers, specific types of surface material to mitigate noise and light mitigation measures.
- 6.2.6.10 The applicant must engage in discussions with the relevant local municipalities, in particular eThekweni Municipality, to address the long term plans for air quality management in the relevant areas.

6.2.7 Biodiversity Offset Agreement

- 6.2.7.1 Given the potential significant residual negative impacts of the proposed project (in particular the two greenfields sections) on natural habitats, and uncertainties associated with the control of potential indirect and / cumulative impacts and future biodiversity conservation measures to be effected in the Pondoland area, a Biodiversity Offset Agreement and all feasible alternative options (e.g. a Trust Fund) must be considered, evaluated and agreed upon in consultation with the DEA and relevant legal experts prior to the commencement of construction on the greenfields sections of the road.

T. Yank