



**PROJECT DEVELOPMENT MANAGEMENT**

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**AMANYUSWA RURAL HOUSING**

**Preliminary Environmental  
Considerations**

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**PROJECT DEVELOPMENT MANAGEMENT**  
**AMANYUSWA RURAL HOUSING**  
**PRELIMINARY ENVIRONMENTAL INVESTIGATION**

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**PROJECT DEVELOPMENT MANAGEMENT**  
**AMANYUSWA RURAL HOUSING**  
**PRELIMINARY ENVIRONMENTAL INVESTIGATION**

**1 INTRODUCTION**

SiVEST Environmental Division has been appointed by Mr Piet Kleinhans of Project Development Management to undertake a preliminary environmental investigation for the proposed Amanuswa Rural Housing Project.

At the preliminary stages of the planning process, a site development plan for the housing project has not been compiled. Therefore, a desktop assessment and site visit have been undertaken to assist the developer in taking significant environmental features into account and to identify any fatal flaws with the proposed development involved in order to enable application for Tranche 1 Housing Board Approval. This report will also refer to the relevant environmental legislation in terms of what activities would trigger an environmental assessment and require the applicant to obtain environmental authorisation from the Department of Agriculture, Environmental Affairs and Rural Development (DAEA&RD).

**2 THE DEVELOPMENT AREA**

**2.1 Area of Development**

The Amanuswa Rural Housing Development has been proposed within an area comprised of the following property:

<b>Table 1: Cadastral Information</b>	
	<b>Property Description</b>
1	Farm No. 4803, St Michaels Mission Reserve 4803

The proposed development site is approximately 2600ha in extent. The cadastral descriptions were extracted from information available at the time of compilation of the feasibility report (Refer to **Figure 1**). A suitably qualified surveyor will need to verify and confirm that this information is accurate.

The site is located within the Sisonke District Municipality and uBuhlebezwe Local Municipalities. The property is located approximately halfway between Ixopo (to the west) and Scottburgh (to the east) on the R612. The proposed development is to take place within the Nyuswa Tribal Authority, and excludes the area described as St. Michael's Mission.

The site is located in a rural area of the uBuhlebezwe Local Municipality and is surrounded on all sides by agriculture (including commercial forestry and sugarcane farming) and rural homesteads. The following environmental and infrastructural features fall in close proximity to the site (Refer to **Figure 2** for regional location of the site):

- The Mpambanyoni River is situated to the north.
- St Michaels Mission on the southern boundary of the site and further south is the R612 Arterial Route
- The Mbholombe River forms the site's eastern boundary.

The co-ordinates of the site are:

Centre of site:

- South: 30° 20' 35.88"

- East: 30° 12' 21.06"



**Plate 1: Proposed project area**

## 2.2 Current Infrastructure

Currently, on site there are a few building structures which include the following (but not limited to):

- Rural Homesteads
- Dirt Roads
- Sports Field
- Schools

## 3 DESCRIPTION OF ACTIVITY

### 3.1 Housing Subsidy Scheme / Subsidy Policy Mechanism

Due to the uniqueness, sensitivity and complexity of land ownership in tribal, communal and land registered under Ingonyama Trust. The National Department of Housing (DOH) has developed guidelines for housing in rural areas.

Tenure, with regards to rural developments, will include the special circumstances that prevail in rural areas. This is based on a system where beneficiaries are permitted to reside and use land in accordance with traditional arrangements. There are no title deeds. In order to overcome this problem, a GPS system will be used whereby each of the intended beneficiary sites will be recorded. Also a fixed co-ordinate system for the outer boundary of the Isigodi area will be taken.

In addition to the above, the details of each beneficiary, and the consent/signature of the Traditional Authority involved will be compiled to form a database which will be submitted to the Department of Housing. Where the beneficiary vacates the property his name will be removed from the National Housing database so that the beneficiary may once again qualify for a subsidy. In this case the Amakosi may reallocate the property to other qualifying beneficiaries<sup>1</sup>.

All applications are to be forwarded to the DOH for consideration and approval, the DOH will in turn forward/circulate the Rural Subsidy Application to relevant role players<sup>2</sup>. The application as well as comments received will be assessed by the Technical Assessing Committee (jointly DOH and DTLGA), and a recommendation will then be made to the DOH. In addition to the DOH requirements, the Department of Traditional and Local Government Affairs (DTLGA) are also required to assess housing applications.

Notwithstanding the above guidelines for municipalities, intended beneficiaries need to meet Department of Housing criteria to qualify for the subsidy. This means that they:

<sup>1</sup> Letter addressed to the Housing Advisory Committee for the approval by the MEC of Housing

<sup>2</sup> Draft Guideline Document for Housing Projects on Ingonyama Trust Land, undated, pg 1-2

- Should not have received assistance in the form of grants before;
- Should be married, cohabit or have dependents;
- Should be a South African Citizen; over the age of 21; and
- Should have gross household earnings not exceeding R3 500, 00 a month.

### 3.2 Nature of Proposed Development

The area to be developed is located within the Nyuswa Tribal Authority. This area is relatively underdeveloped, with minimal bulk services as indicated below (**Section 4.5**). The development is expected to assist approximately 750 existing family units with a potential of 1036 beneficiaries within the project area, which is approx. 2600 Ha in extent. The development will focus on the Imuzi, as the area to be developed. Existing homes will be upgraded or a new home will be built within the Imuzi.

There will be no additional allocation of land for housing as the new houses will be built within the existing Imuzi and in line with the Department of Housing Rural Policy. Disruption of the existing household is to be kept to a minimum. Funding will be provided to already established, 'needy' households or Imuzi within the project area

**Table 2** below presents the proposed upgrades to the following services:

<b>Table 2: Proposed Service Upgrades</b>		
	<b>Service</b>	<b>Proposed Upgrade</b>
1	Roads	The existing gravel roads will be maintained
2	Stormwater	No formal stormwater management plan has been proposed. However, to mitigate against the impacts of uncontrolled stormwater from causing erosion (rill and gully), the platforms will be constructed and graded to ensure that run-off from the structures is contained on site.

## 4 SITE ASSESSMENT

A site visit was previously undertaken on the 20<sup>th</sup> of August 2004 to develop an overall 'feel' for the study area. A more recent desktop assessment was conducted by assessing Satellite Imagery obtained from the uBuhlebezwe Local Municipality and Sisonke District Municipality, and the relevant 1:50 000 Topographical Maps. It is anticipated that during the planning stage, a detailed environmental assessment (including another site visit) will be required to confirm the findings of the desktop study.

### 4.1 Topography

The area under consideration is approx. 2600 Ha. There are a number of terraced slopes in the south-west, northern and south-east portions of the project area. These are reportedly dedicated to cultivation of crops in the area. The terraces are a noticeable feature of the area. Drainage lines in steep areas tend to have relatively undisturbed natural vegetation. This is probably because these areas are usually too steep and rugged for human habitation and use, and as a result have been left undisturbed, (refer to **Figure 3** for topographical context of the area).

The northern slopes of the kuNongengane river valley appear deeply incised and well vegetated (relatively undisturbed riverine vegetation consisting of large trees and shrubs). The northern reaches of the project area are dominated by lowlands which are prone to periodic flooding as is evidenced by wetland vegetation in the area.

### 4.2 Geology and Soils

Geology is expected to be underlain by the arenite, tillite and gneiss (DAEA ENPAT) (refer to **Figure 4**).

The ENPAT spatial dataset for the KwaZulu-Natal Province provides details pertaining to the broad soil type and approximate agricultural potential for the study area. The ENPAT Database also provides an overview of the study area's agricultural potential based on its soil characteristics, although it should be noted this spatial dataset does not take prevailing climate into account. The project area contains soils which are not suitable for arable agriculture, but remain suitable to grazing and forestry (where climate permits) for areas that are on top of the ridges. Within the areas around the valleys, on the banks of the rivers, the soil is moderately suitable for arable agriculture (where weather permits) (refer to **Figure 5**).

It is important to note that a suitably qualified Geotechnical Engineer will be required to assess the site geology and geotechnical characteristics of the subsoil materials, with respect to suitability for the development proposal and engineering services. It is likely that on-site methods of sewage disposal will be incorporated into the development proposal and guidance from the Geotechnical Engineer will most likely be required in terms of establishing aspects such as the percolation properties of the soil.

### 4.3 Water resources and drainage

The site is characterised by steep topography with incised valley lines that descend towards the many perennial streams and rivers (refer to **Figure 6**).

The topography of the area is dominated by the kuNongengane and Mkumbane river valleys. These drain the south-western portion of the project area and flow in a north-easterly direction. There is a band of land prone to periodical flooding in the northern reaches of the project area. This is located close to the confluence of the kuNongengane and Mkumbane Rivers.

A number of wetlands, drainage lines and flood plains were also observed during the site visit. During the planning stages of the development proposal it is important to protect the integrity of these systems by ensuring that development is maintained outside of the drainage lines and floodplains. These areas generally would not be affected by the proposed houses but the following requirements for drainage lines would need to be considered:

- The 1:100 year flood line is regarded as the minimum ecological corridor along larger rivers and their tributaries.
- A minimum of 21m (measured from the edge of the drainage line) will be required on both sides of drainage lines in the case of quaternary and smaller drainage lines.
- Development must also fall outside associated wetland systems and its buffers. It is recommended that such wetland buffers are at least 20m from the edge of temporary boundary. Although the terrain does appear to gentle, it is important that stormwater contained on site prior to release downslope.

A number of areas were identified that have a serious soil erosion problem. However, the planning of a settlement area normally involves the planning of road/path layouts, storm water drainage, ecological corridors and erosion control measures. Storm water runoff is therefore likely to be better controlled after development due to the improved planning of the area.

Although there will be upgrades to existing facilities, should new sites be considered for new rural housing, the development should be located along the flatter areas of the study area. No development should be allowed on slopes steeper than 1:3.

### 4.4 Floral and faunal communities

#### 4.4.1 Vegetation

The presence of indigenous vegetation is a prime determinant of the biological communities of the site. Therefore, the impact on the total biological communities is inferred from the extent to which the vegetation has been impacted on by current and historical activities. Wildlife on the site is considered in terms of its habitat requirements, and is therefore closely related to the presence of appropriate vegetation on the site, and the potential impacts of the proposed development on this vegetation.

Camp (1997) describes the area under consideration as consisting of a mixture of Bio Resource Group (BRG) 21 and BRG 3. There was evidence during the site visit of areas classified as mixed succulent scrub, described by Camp as occurring in BRG 21 (Valley Bushveld). This consisted of scrub on dry north facing slopes with shallow soils. Camp further describes the occurrence of various aloe (*Aloe rupestris*) and euphorbia (*Euphorbia tirucalli* and *E. triangularis*) species in the area, which were apparent during the site visit.

BRG 3 is described as Moist Coast Hinterland Ngongoni Veld. Camp (1997) describes BRG 21 as consisting of secondary grassland dominated by unpalatable Ngongoni grass (*Aristida junciformis*). Common trees are listed as *Apodytes dimidiata*, *Combretum kraussii*, *Cryptocarya woodii*, *Cussonia spicata*, *Halleria lucida*, *Harpephyllum caffrum*, *Rapanea melanophloeos*, *syzigium cordatum*, *Trimeria gradifolia* and *xymalos monospora*.

It was apparent that there was a number of alien invasive species especially along areas where there was some disturbance to the land (along roads, previously cultivated areas etc). These included Guava (*Psidium guajava*), lantana camara, Peanut butter cassis (*Senna didymobotrya*) and Triffid Weed (*Chromolaena odorata*).



**Plate 2: Mixed succulent scrub described by Camp (1997) with aloe, and euphorbia species in the background**

#### 4.4.2 Ezemvelo KZN Wildlife C-Plan

An additional consideration is the Strategic Environmental Assessment (SEA) and Conservation Plan (C-Plan) produced by Ezemvelo KZN Wildlife. KwaZulu-Natal has been divided in 1km<sup>2</sup> blocks and threatened floral and faunal species that are known to, or have the potential to occur in the grids are listed in terms of conservation value, (refer to **Figure 7**).

**Table 3** below represents the species that have the potential to exist within the property, should the required habitat be present. Cognisance of conservation significance of these species will have to be taken into account during the planning stages.

<b>Table 3: Species listed in Ezemvelo KZN Wildlife's C-Plan 2012</b>		
	<b>Species</b>	<b>Habitat</b>
1	<i>Eremidium erectus</i>	KwaZulu Natal Sourveld
2	<i>Doratogonus ingragilis</i>	Moist Ngongoni Veld and Dry Ngongoni Veld
3	<i>Helichrysum woodii</i>	Dry Ngongoni Veld

#### 4.5 Provision of bulk services

Electricity and water points (standpipes) are available to the surrounding community. Municipal waterborne sewage is not available in the area; therefore, on-site methods of effluent disposal are being utilised in the area, such as Pit Latrines. Neither is there a formal waste collection service, households dispose of all waste on an individual basis.



The area is traversed by a series of roads, but the pass-ability of some of these is questionable in the rainy season. No new roads will be constructed in the area; however, existing road infrastructure will be upgraded where necessary. There are existing schools, community centres and other facilities in the area. There is a cemetery (private) in the area, adjacent to the St. Michaels Mission.

Given the social landscape of the area (typical KwaZulu-Natal with widely scattered dwellings and undulating topography), it may prove costly to deliver these services to remote rural communities. However the possibility of delivering these services needs to be looked in to and investigated for the benefit and upliftment this local community. Should any proposed development make provision for the bulk supply to the area; these services will need to be located outside of all wetland area and away from drainage lines and other environmentally sensitive areas.



**Plate 3: Some of the perceived beneficiaries settled on north facing slopes in the area**

#### **4.6 Stormwater and erosion**

A common issue associated with many developments in KwaZulu-Natal is that of soil erosion. All soils are potentially susceptible to erosion particularly during the construction phase of a development. This is largely evident when water is concentrated on steep slopes denuded of vegetation, for example rainwater run off from impermeable surfaces created with development. Taking into account the undulating topography and steeply incised valleys on site, this potential impact has been recognised and needs to be assessed during the detailed planning stages.

An increase in suspended materials carried by stormwater runoff over unprotected soils during construction has the potential to impact on the wetlands and drainage lines identified in the area. An increase in stormwater runoff is likely to result due to increased hardstand areas as a result of development, and would result in erosion damage by increasing velocities in the natural watercourses.

Within the context of a rural housing upgrade project, the level of service to be provided to each unit, in terms of stormwater attenuation has been described in **Table 2** above. However, it is recommended that in addition to the methods presented above, low intensity green methods of attenuation are incorporated into the planning process wherever possible. The harvesting of rainwater in Jojo tanks for example could reduce the amount of run-off from each unit and would also provide additional potable water for consumption or irrigation purposes.

#### **4.7 Social Considerations**

The project area is under the jurisdiction of the Nyuswa Tribal Authority, although the St. Michaels Mission in the area plays a strong role within the social landscape. There are no major industries in the area; the majority of the households depend on the market gardening and other activities. As a result the area is relatively underdeveloped and in need of rural development projects, of which the rural housing initiative proposed would assist.

There is a cemetery located south-west of the mission. The area immediately around the mission is sparsely populated. Households and Imuzi are more common along the north facing slopes of the ridges and spurs.

During the site visit a number of small retailers (spaza shops, bottle stores) and small industries (block making etc) were seen in the area. There were also a number of market gardeners located in the low lying areas. It was also apparent that there was a relatively advanced level of cattle farming in the area, with the provision of dip tanks and cattle chutes.



**Plate 4: Spaza shop in the project area**



**Plate 5: Cattle dip close to St Michaels Mission**

#### **4.8 Public Participation**

Extensive consultation with local communities and I&AP's will be necessary as part of the consultation process. This has been ongoing since the project inception, and this is expected to continue throughout the duration of the project.

### **5 ENVIRONMENTAL LEGAL REQUIREMENTS**

Various pieces of environmental legislation apply to the proposed development on the land under question. This should be taken into account as part of the planning process for any proposed development. This includes but is not restricted to:

- Animals Protection Act , Act No. 71 of 1962
- Atmospheric Pollution Prevention Act, No. 45 of 1965
- Conservation of Agricultural Resources Act, No. 43 of 1983
- Environmental Planning Act, Act No. 88 of 1967
- Forest Act, No. 122 of 1984
- Forest and Veld Conservation Act, Act No. 13 of 1941
- KwaZulu-Natal Heritage Act, Act No. 4 of 2008
- Hazardous Substances Act, No. 15 of 1973
- Land Survey Act, No. 9 of 1921
- Minerals Act, No. 50 of 1991
- National Building Regulations Standards Act, Act No. 103 of 1977
- National Environmental Management Act, Act No. 107 of 1998
- National Environmental Management: Air Quality Act, Act No. 39 of 2004
- National Environmental Management: Biodiversity Act, Act No. 10 of 2004
- National Environmental Management: Environment Conservation Act Amendment, No. 50 of 2003
- National Environmental Management: Waste Act, Act No. 59 of 2008
- National Heritage Resources Act, No. 25 Act of 1999
- National Water Act, Act No. 36 of 1998
- Occupational Health and Safety Act, Act No. 85 of 1993
- Provincial and Local Government Ordinances and Bylaws
- Soil Conservation Act, Act No. 76 of 1969
- Tourism Act, Act No. 72 of 1993
- Water Services Act, Act No. 108 of 1997

## 5.1 Environmental regulations

EIA Regulations, 2010 promulgated under Section 24(5) of the National Environmental Management Act, Act 107 of 1998 (as amended) and published in Government Notice No. R. 543 list activities which may not commence without environmental authorization from the competent authority. Activities listed in Government Notice No. R. 544 and Government Notice No. R. 545 must follow a Basic Assessment procedure (Regulations 22 to 26 of the EIA Regulations, 2010), and Scoping and EIA process procedure (Regulations 27 to 36 of the EIA Regulations, 2010), respectively.

The proposed development might trigger the following activities:

<b>Table 4: Listed Activities Commonly Triggered by Development in KZN</b>	
<b>Listed Activity</b>	<b>Activity Description</b>
<b>Basic Assessment</b> (GNR 544 of 18 June 2010)	
11	The construction of facilities or infrastructure, including associated infrastructure for any purpose within a watercourse or within 32 metres of a watercourse, measured from the edge of the watercourse, excluding where such construction will occur behind the development setback line
18	the Infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from a watercourse.
23	The transformation of undeveloped, vacant or derelict land to residential, retail, commercial, recreational, industrial or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectare but less than 20 hectares; except where such transformation takes place for linear activities.
26	Any process or activity identified in terms of section 53 (1) of National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
<b>Scoping and EIA</b> (GNR 545 of 18 June 2010)	
15	Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed in 20 hectares or more.

Other listed activities, as specified by the National Environmental Management Act, 1998 (Act No. 107 of 1998) EIA regulations may become relevant as details of the project evolve.

### 5.1.1 Exemption Process

Correspondence has been received from the KZN Department of Agriculture, Environmental Affairs and Rural Development (DAEA&RD) regarding the exemption of certain development proposals in areas under the jurisdiction of the Ingonyama Trust (refer Appendix A). The exemption process makes reference to the 2006 EIA regulations, however DAEA has confirmed (correspondence received on 05 March 2013) that the rural housing checklist can be read with the 2010 EIA regulations (as amended).

Typical development proposals likely to obtain exemption include:

- In situ upgrades which are defined as those which entail only the provision of an additional or upgraded house (top-structure) of existing households or 'imizi' and which entail no 'green-fields' [virgin ground] development.
- That they do not entail the provision of any services beyond that of on-site sanitation, in some instances.
- That they be located on Ingonyama Trust Land

Should the development proposal not trigger any activities listed under GNR 544, 545 and 546 of 18 June 2010, it is likely that an exemption will be granted although DAEA require a brief description of the development proposal including environmental aspects for consideration (refer rural housing checklist).

As per the responsibilities of landowners described in terms of Section 28 of the National Environmental Management Act 107 of 1998 (NEMA), the **duty of care** principle should be applied to promote environmentally sustainable development.

As per subsection 1 of NEMA, the developer is required to:

- (a) Investigate, assess and evaluate the impact on the environment;
- (b) Inform and educate employees about the environmental risks of their work and the manner in which their tasks must be performed in order to avoid causing significant pollution or degradation of the environment;
- (c) Cease, modify or control any act, activity or process causing the pollution or degradation;
- (d) Contain or prevent the movement of pollutants or the causing of degradation;

Consequently it is recommended that a comprehensive **Environmental Management Programme** is compiled for the construction phase of the development and that environmental auditing be undertaken during construction.

## 6 CONCLUSION

Based on the findings of the preliminary investigations it can be concluded that:

- There is an important socio-economic need and desirability to upgrade the rural residential facilities of a large portion of this population in the uBuhlebezwe Local Municipality.
- The area has been disturbed through past land use such as agriculture, but does appear to contain environmental features worthy of conservation. These features include, the perennial and non-perennial stream and associated floodplains and wetland systems.
- All wetland areas within the proposed site will need to be delineated by a specialist wetland ecologist. SiVEST Environmental Division has the capacity to undertake these assessments.
- There are potentially negative impacts on the biophysical environment associated with the development proposal. However, if most of the residential units are constructed within the footprint of the existing informal structures, or outside of environmentally sensitive areas the potential impacts are unlikely to be significant.
- This project is not a 'Green fields' development and is envisioned to have minimal environmental impacts. Along with the construction of new dwellings the overall well-being of the community will need to be taken in to account. Some of the perceived benefits of this development include;
  - Provision of housing for rural communities;
  - Social and economic upliftment and an improvement in the quality of life in the area especially if locals are employed during the construction;
  - A contribution towards co-ordinated and sensitive environmental planning; and
  - A spring board for future growth in the area.
- There are potentially negative impacts on the biophysical environment associated with the development proposal.
  - a) However, if the residential units are constructed within the footprint of the existing informal structures, or outside of environmentally sensitive areas the potential impacts are unlikely to be significant and can be sufficiently mitigated for and managed.
    - In this case, environmental authorisation will not be required in terms of the Listing Notices. DAEA are however likely to require a Duty of Care Report and Environmental Management Plan to be undertaken.
  - b) Where new residential units are developed on Greenfield sites there are very likely to be negative impacts on the biophysical environment.
    - In this case A Basic Assessment or a Scoping and Environmental Impact Assessment (EIA) may be required should any activities proposed or site specific conditions fall within the activities listed under Government Notice Regulation 544 and 545 of 18 June 2010 (as amended).

In conclusion the impact of the development on the environment is not considered to be high. However a full assessment of the final development proposal will need to be taken in to account in order to ensure that the project is sustainable in the long run.

Kind Regards,



Lloyd Ndlovu  
Environmental and GIS Consultant  
**SiVEST Environmental Division**



Appendix A:  
**Correspondence from DAEA Regarding In Situ  
Rural Upgrades on Ingonyama Trust Land**



## KZN Agriculture and Environmental Affairs

*Mnyango:*  
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### SIFUNDAZWE SAKWAZULU-NATALI

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Reference No:

Date: 20 July 2007

### *Fax Transmission*

Project Preparation Trust of KwaZulu-Natal  
c/o Aldine Armstrong Attorneys  
271 Cowey Road  
DURBAN, 4001

**Attention: Ms Aldine Armstrong, Fax No: 031 – 312 3931**

Dear Madam,

#### STATE FUNDED IN SITU UPGRADE RURAL HOUSING PROJECTS ON INGONYAMA TRUST LAND, KWAZUL-NATAL

Your meeting with Ms Sarah Allan of this Department on 31 May 2007 refers.

This Department has considered the nature of typical in situ upgrade rural housing projects on Ingonyama Trust Land which projects are funded by the Kwazulu - Natal Department of Housing<sup>1</sup> in order to determine whether such projects trigger any listed activities identified under the environmental impact assessment regulations GNR 386 and 387 of 21 April 2006 (the EIA Regulations, 2006) under the National Environmental Management Act, 1998 (NEMA), which activities would require environmental authorisation.

Typical projects would include:

- in situ upgrades which are defined as those which entail only the provision of an additional or upgraded house (top-structure) to existing households or 'imizi' and which entail no green-fields development;
- that they do not entail the provision of any services beyond that of on-site sanitation, in some instances.
- that they be located on Ingonyama Trust land.

This Department has determined that there is **no environmental authorisation** required from the Department for these specific rural housing projects, as there are no listed activities under the above EIA regulations that pertain to such proposed developments.


<sup>1</sup> Such projects can be categorized as Type 1: low density (deep rural) – average project density less than 5 houses provided per ha; type 2: medium density (peri-urban) – average density of between 5 and 10 houses per ha; type 3: medium to high density – average density of greater than 10 houses per ha

Although no authorisation is required from this Department for these projects, it requires that a brief project description including environmental aspects be submitted to this Department for consideration. This Department will issue a letter confirming the status quo and detailing certain conditions that must be complied with, in accordance with a checklist and a proposed environmental management plan compiled by the environmental specialist appointed to the project team.

No further communication will be necessary from this Department in terms of formal process. Should further involvement be necessary it will be an internal issue between the Department and the proponent under the general duty of care imposed on all persons.

In cases where other development forms part of the rural housing project, which might trigger the requirement of an environmental authorisation in its own right, such services as roads, storm water or water supply, then it is noted that these need to be clearly specified and they will be separately addressed.

Yours faithfully,

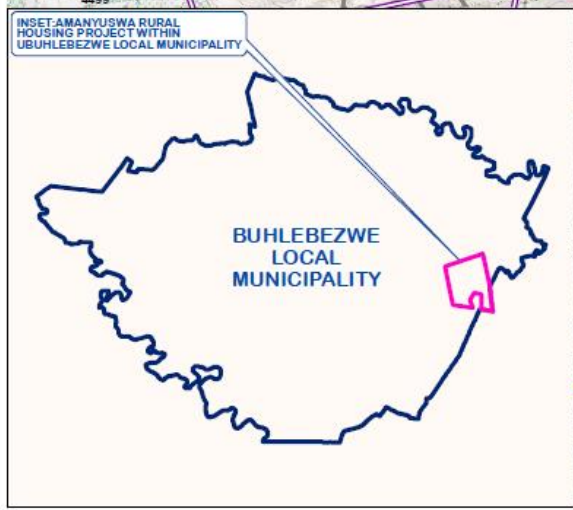
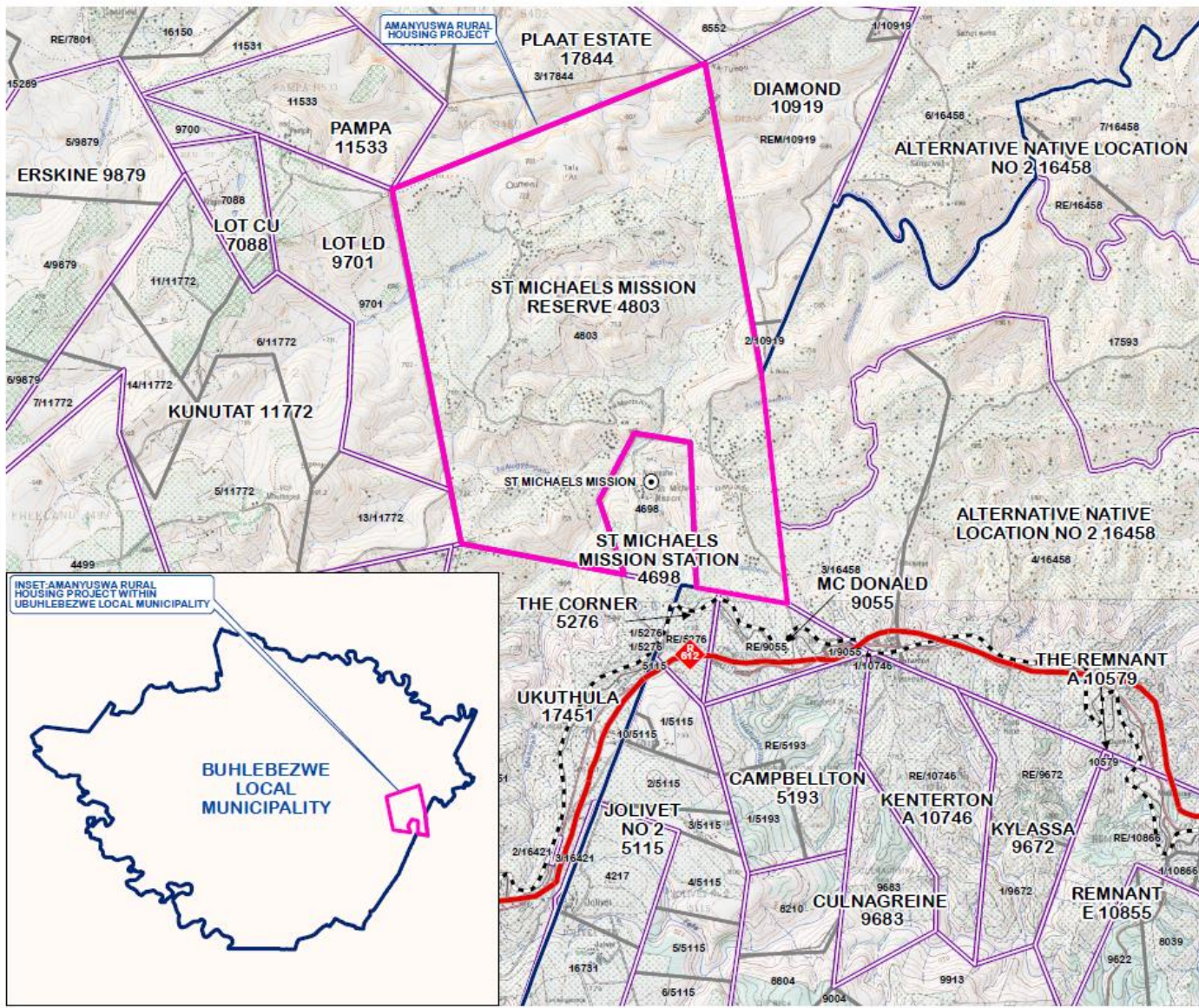


Head of Department:  
Department of Agriculture & Environmental Affairs





Figure 1:  
**Cadastral Information Map**



**AMANYUSWA RURAL HOUSING PROJECT**  
**PRELIMINARY ENVIRONMENTAL INVESTIGATION**  
 NYUSWA TRIBAL AUTHORITY (UBUHEBEZWE MUNIICIPALITY)  
 FIGURE 1: CADASTRAL BOUNDARIES

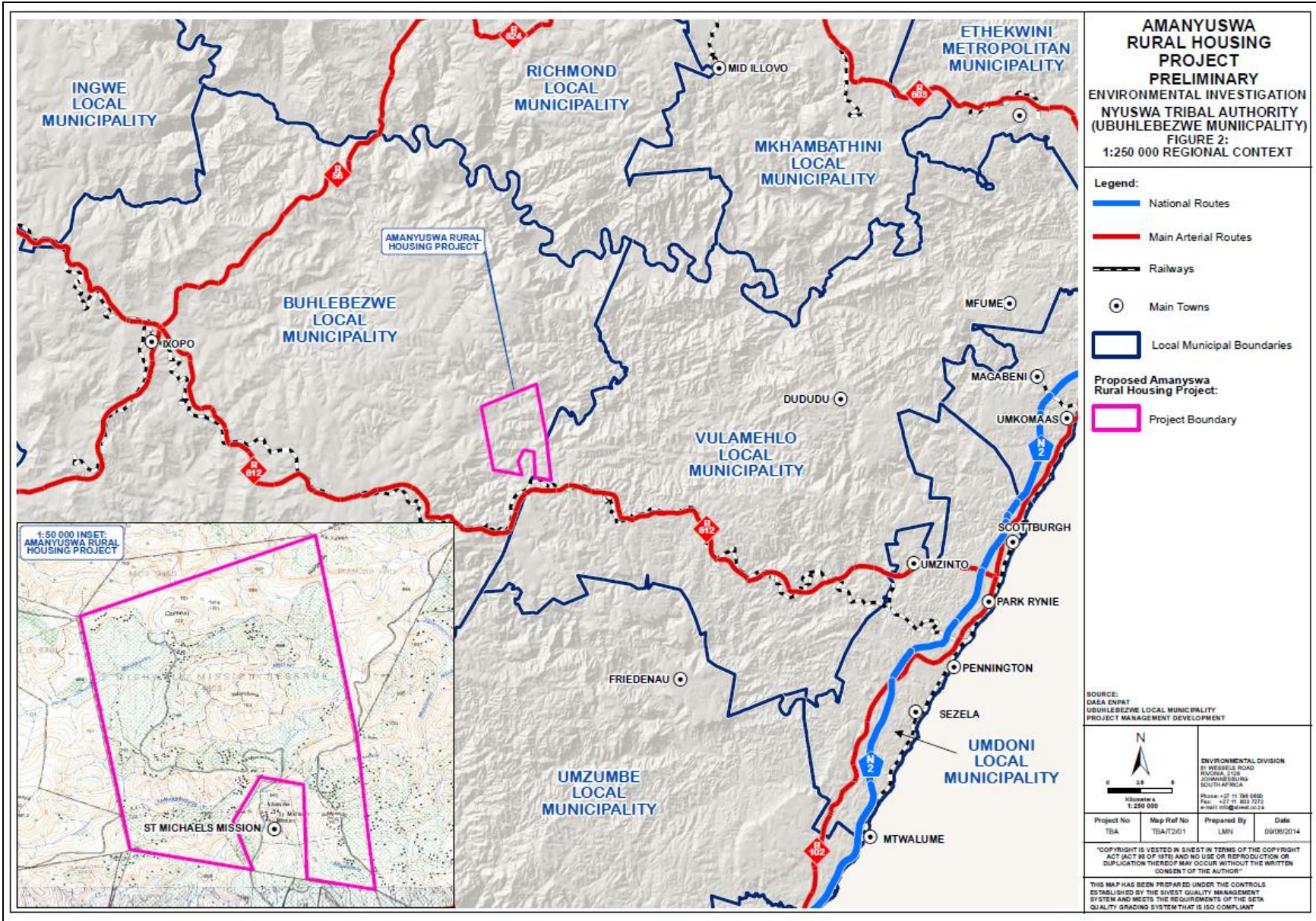
- Legend:**
- Main Arterial Routes
  - Railways
  - Main Towns
  - Local Municipal Boundaries
  - Proposed Amanyuswa Rural Housing Project:**
  - Project Boundary
  - Cadastral Boundaries:**
  - Parent Farms
  - Farm Portions

SOURCE: DASA ENPAT UBUHEBEZWE LOCAL MUNICIPALITY PROJECT MANAGEMENT DEVELOPMENT

		ENVIRONMENTAL DIVISION 51 WINDERS ROAD BUKHOMBI 2128 JOHANNESBURG SOUTH AFRICA Phone: +27 11 368 5555 Fax: +27 11 368 5272 Email: info@www.dasa.co.za	
Project No TBA	Map Ref No TBA/T293	Prepared By LMN	Date 10/06/2014
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<small>THIS MAP HAS BEEN PREPARED UNDER THE CONTROLS ESTABLISHED BY THE SIVEST QUALITY MANAGEMENT SYSTEM AND MEETS THE REQUIREMENTS OF THE SETA QUALITY GRADING SYSTEM THAT IS ISO COMPLIANT</small>			



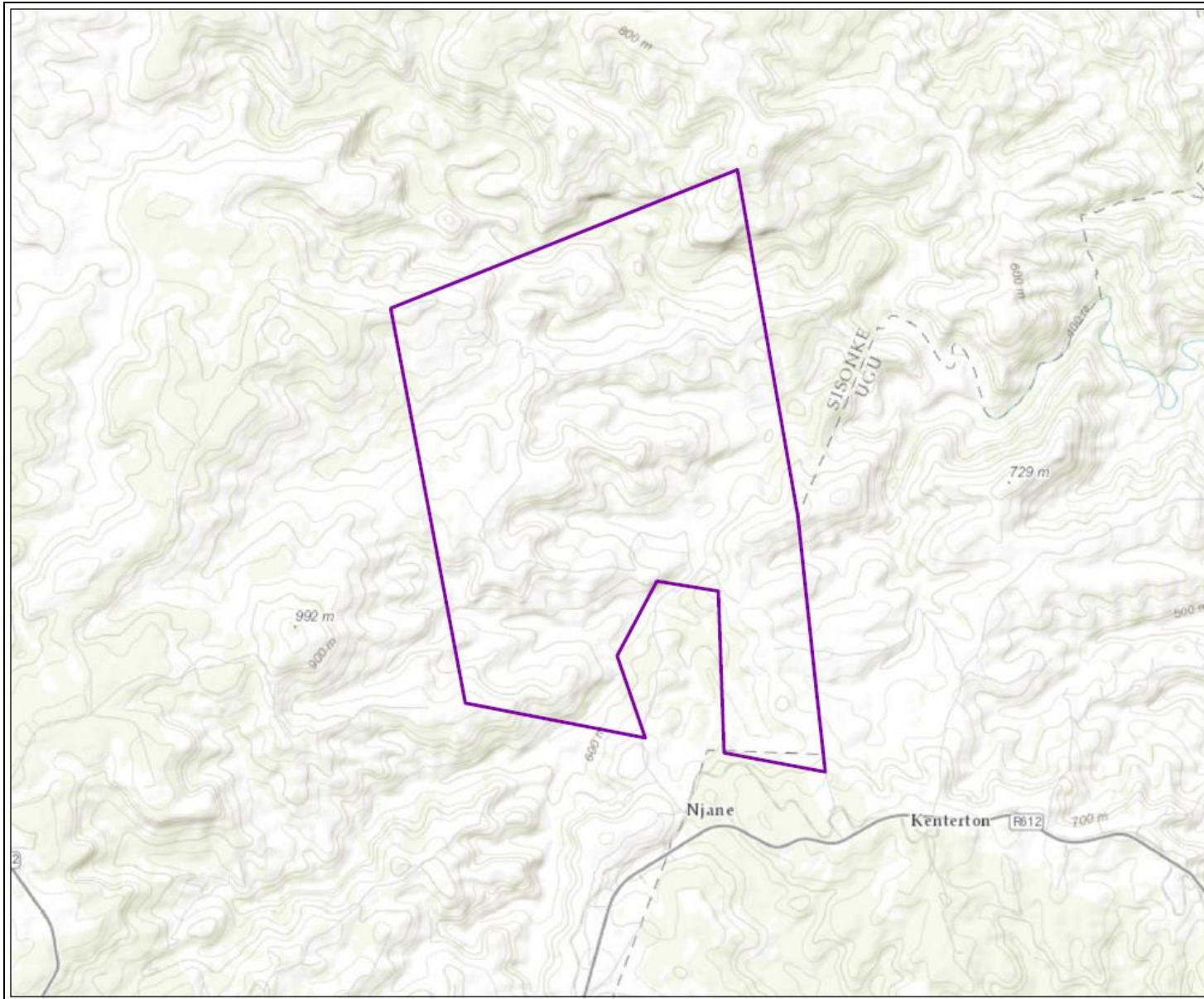
Figure 2:  
**1:25 000 Topographical Map  
Illustrating the Regional Location  
of the Site**



**SIVEST**



Figure 3:  
**Topographical  
Map**



**AMANYUSWA RURAL HOUSING PROJECT**

**Legend**

 The Site

St Michaels Mission  
Reserve 4803  
Farm no: 4803  
Extent: 3431 Ha



**TOPO**

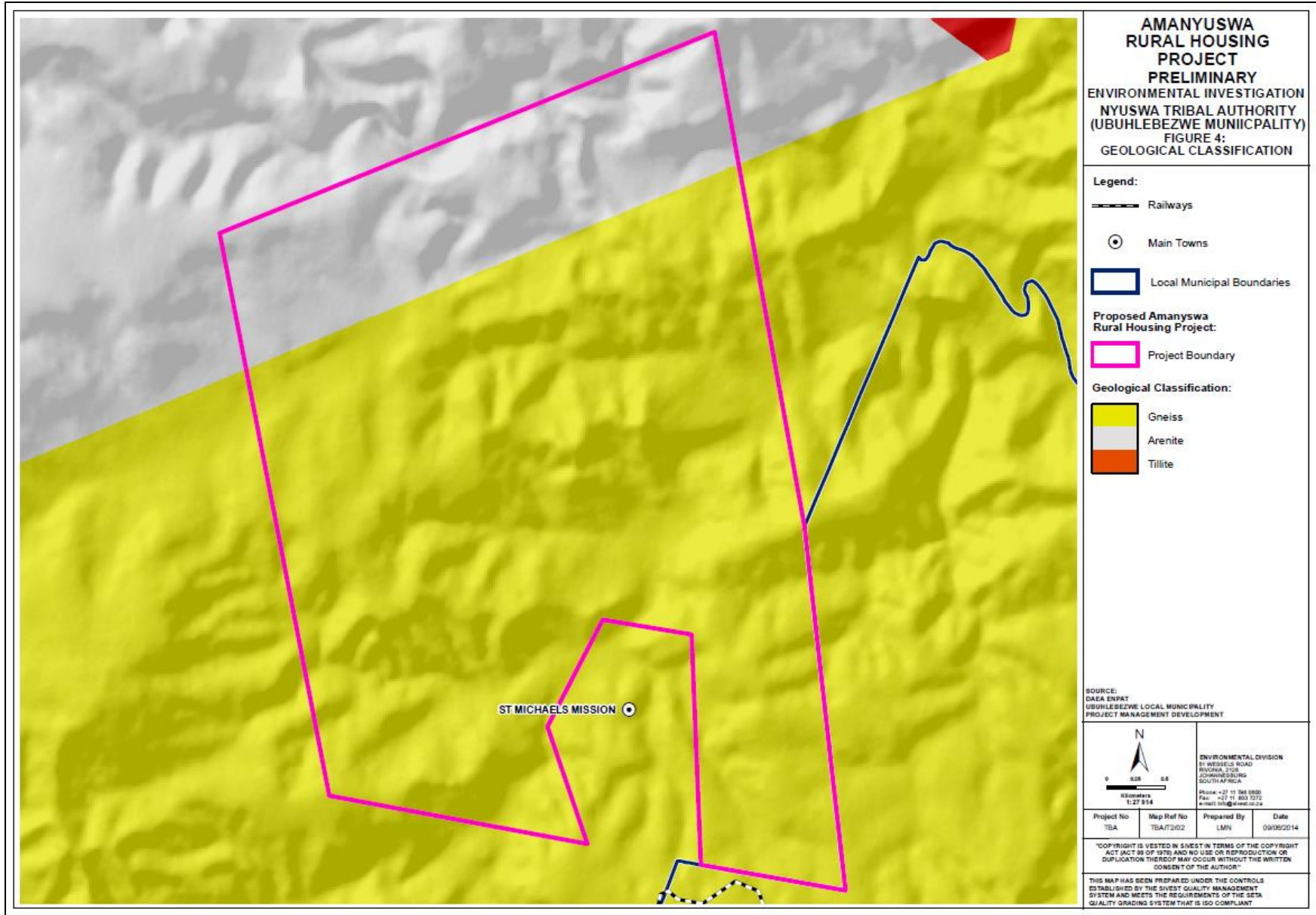
Date: 09 June 2014 Ref: ixopo  
Data Source: Esri World Imagery

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Figure 4:  
**Geological Classification**



**AMANYUSWA  
RURAL HOUSING  
PROJECT  
PRELIMINARY  
ENVIRONMENTAL INVESTIGATION  
NYUSWA TRIBAL AUTHORITY  
(UBUHLEBEZWE MUNIICIPALITY)  
FIGURE 4:  
GEOLOGICAL CLASSIFICATION**

**Legend:**

-  Railways
-  Main Towns
-  Local Municipal Boundaries

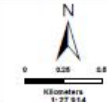
**Proposed Amanyuswa  
Rural Housing Project:**

-  Project Boundary

**Geological Classification:**

-  Gneiss
-  Arenite
-  Tillite

**SOURCE:**  
DATA SUPPLY  
UBUHLEBEZWE LOCAL MUNICIPALITY  
PROJECT MANAGEMENT DEVELOPMENT



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Figure 5:  
**Soil Potential**

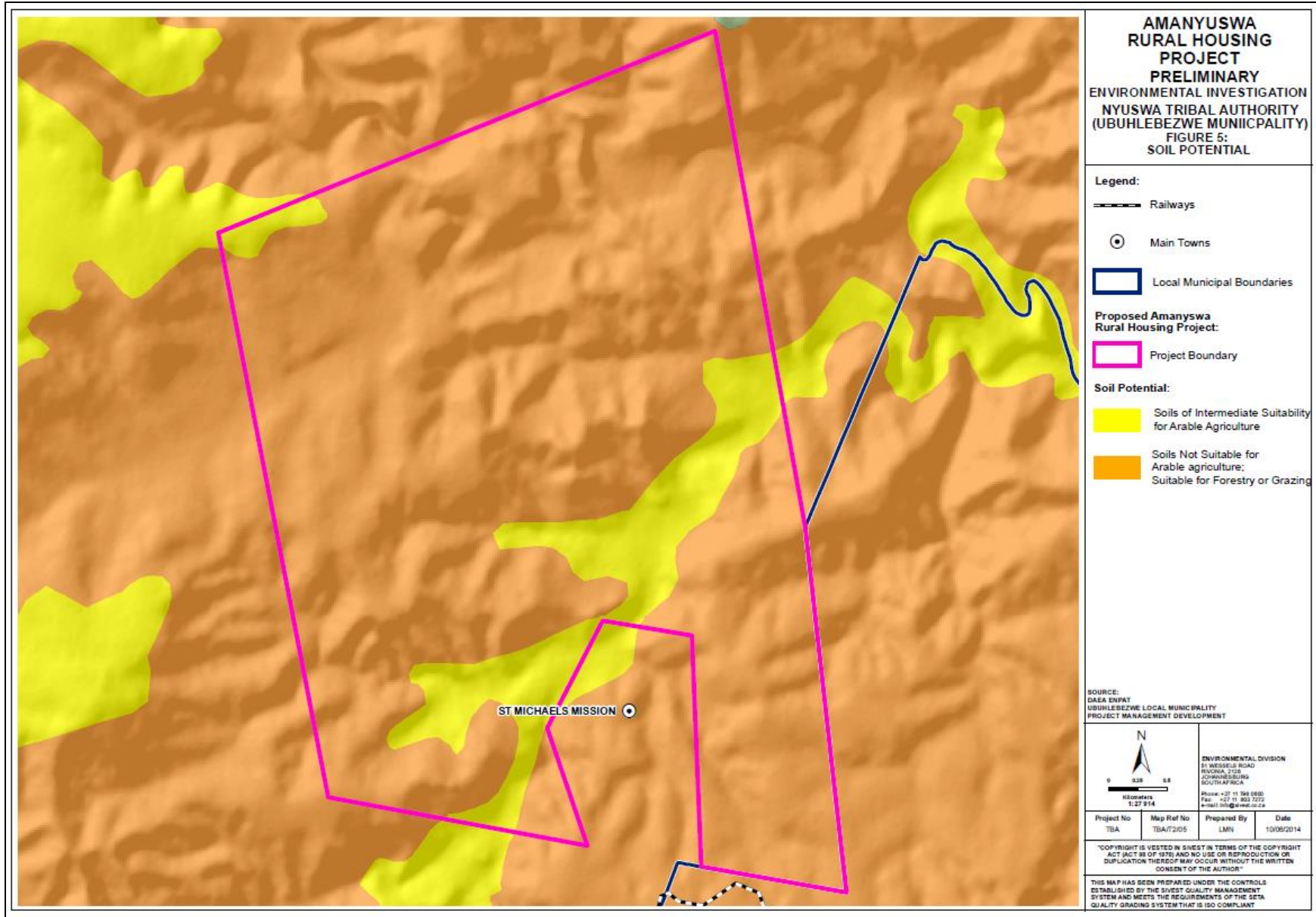
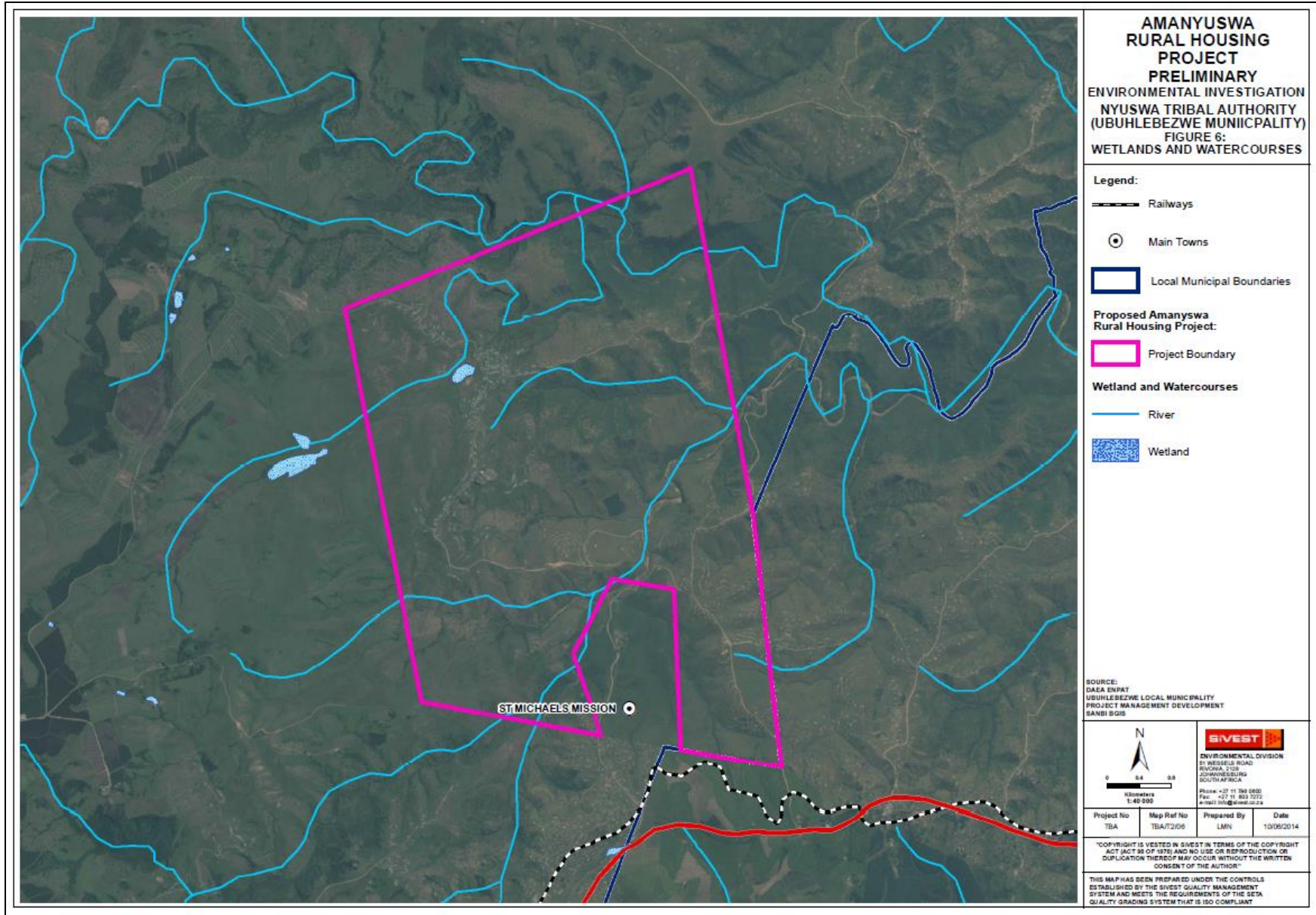





Figure 6:  
**Preliminary  
Desktop Environmental Assessment  
Overlaid Onto Satellite Imagery**



**AMANYUSWA  
RURAL HOUSING  
PROJECT  
PRELIMINARY  
ENVIRONMENTAL INVESTIGATION  
NYUSWA TRIBAL AUTHORITY  
(UBUHLEBEZWE MUNIICIPALITY)  
FIGURE 6:  
WETLANDS AND WATERCOURSES**

**Legend:**

-  Railways
-  Main Towns
-  Local Municipal Boundaries

**Proposed Amanyuswa  
Rural Housing Project:**

-  Project Boundary

**Wetland and Watercourses**

-  River
-  Wetland

ST. MICHAELS MISSION

**SOURCE:**  
DATA INPUT  
UBUHLEBEZWE LOCAL MUNICIPALITY  
PROJECT MANAGEMENT DEVELOPMENT  
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Figure 7:  
**Ezemvelo KZN  
C-Plan**

**AMANYUSWA  
RURAL HOUSING  
PROJECT  
PRELIMINARY  
ENVIRONMENTAL INVESTIGATION  
NYUSWA TRIBAL AUTHORITY  
(UBUHLEBEZWE MUNICIPALITY)  
FIGURE 7:  
EKZN CPLAN 2012**

**Legend:**

-  Railways
-  Main Towns
-  Local Municipal Boundaries

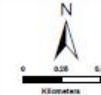
**Proposed Amanyswa  
Rural Housing Project:**

-  Project Boundary

**Species Listed in  
EKZN C-Plan 2012**

-  Eremidium erectus/  
Helichrysum woodii
-  Helichrysum woodii
-  Odontomelusa eshowe
-  Euonyma lymnaeiforma/  
Doratosaurus fragilis

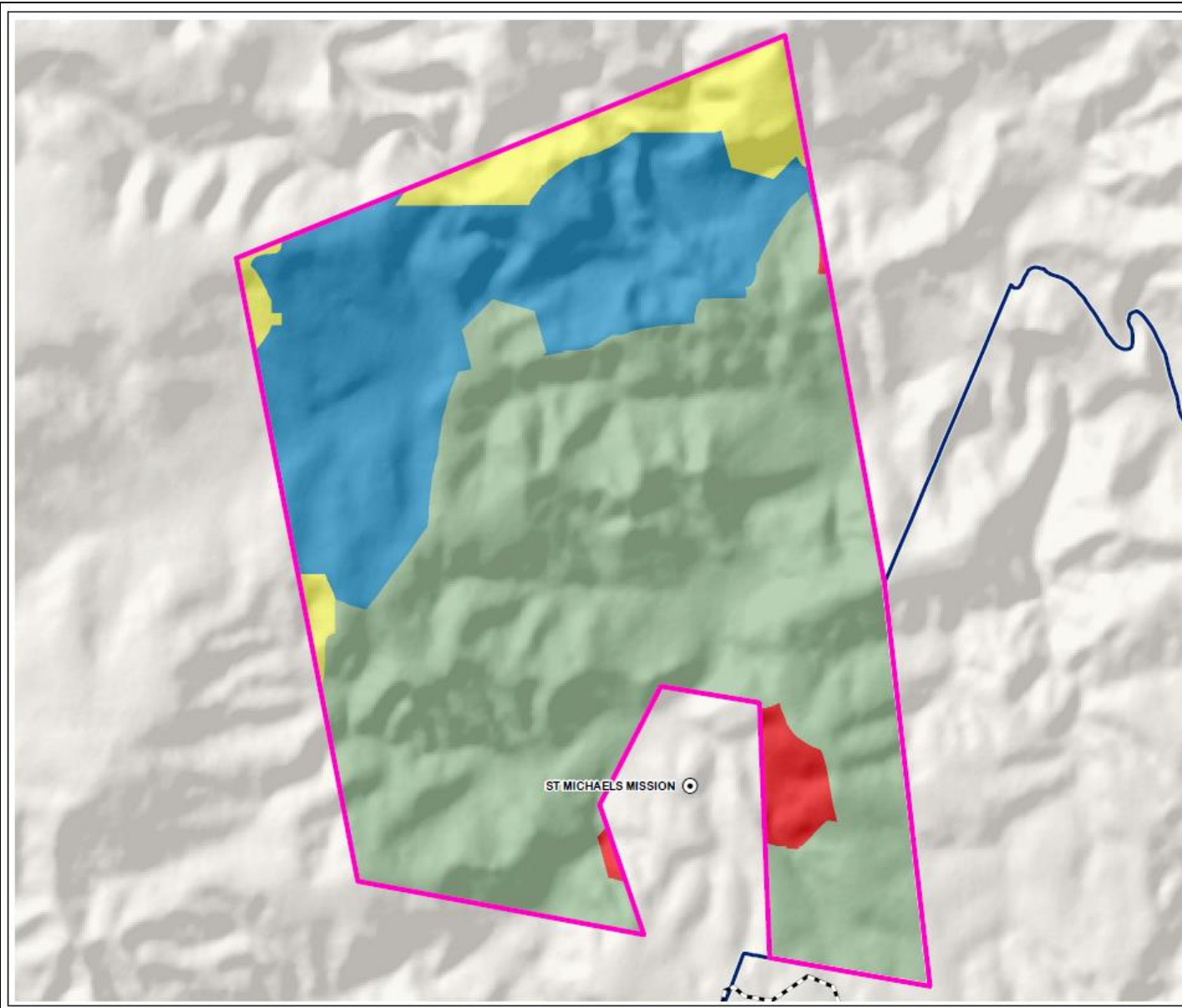
SOURCE:  
DATA INPUT  
UBUHLEBEZWE LOCAL MUNICIPALITY  
PROJECT MANAGEMENT DEVELOPMENT



Project No	Map Ref No	Prepared By	Date
TBA	TBA/T207	LMN	10/06/2014

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