

water & sanitation

Water and Sanitation REPUBLIC OF SOUTH AFRICA

Augmentation of the Lusikisiki Regional Water Supply Scheme

Borrow Pits: Draft Scoping Report

PWMA 12/T60/00/5414/3

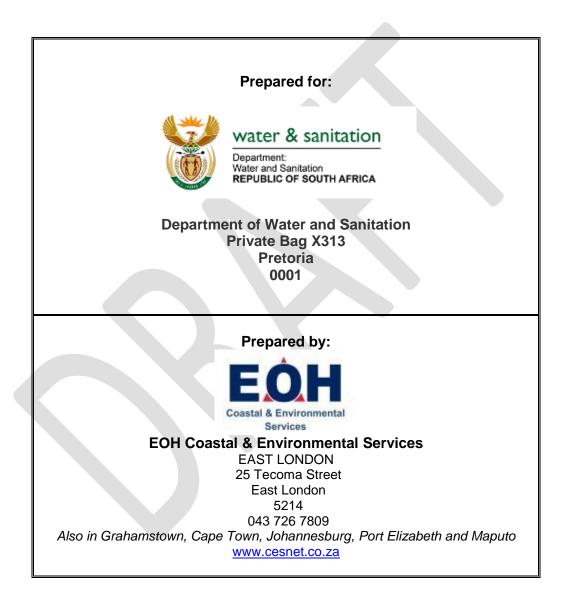


November 2015

AUGMENTATION OF THE LUSIKISIKI REGIONAL WATER SUPPLY SCHEME: BORROW PITS, EASTERN CAPE PROVINCE, SOUTH AFRICA

DRAFT SCOPING REPORT

DMR REF:



November 2015

This Report should be cited as follows: EOH Coastal & Environmental Services, October 2015: *Lusikisiki Regional Water Supply Scheme, Borrow Pits: Scoping Report*, EOH CES, East London.

REVISIONS TRACKING TABLE



EOH Coastal and Environmental Services

Report Title: Lusikisiki Regional Water Supply Scheme, Borrow Pits: Scoping Report **Report Version:** Draft **Project Number:** 237

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LIST OF ACRONYMS

Background Information Document Critical Biodiversity Areas Committee for International Trade in Endangered Species Department of Environmental Affairs Department of Water and Sanitation Environmental Assessment Practitioner Environmental Control Officer Environmental Impact Assessment Environmental Impact Report Environmental Impact Report Environmental Management Programme Government Notice Regulation Hectare Interested and Affected Parties Integrated Development Plan
National Environmental Management Act 107 of 1998 as amended
National Freshwater Ecosystem Priority Area Plan of Study
Protected Areas Expansion Strategy Public Participation Process Red Data Book South African Heritage Resources Agency South African National Biodiversity Institute Species of Special Concern Terms of Reference

1. INTRODUCTION

1.1 Background to the Study

The Department of Water and Sanitation (DWS) has completed a detailed feasibility study for the Augmentation of the Lusikisiki Regional Water Supply Scheme (LRWSS) at Lusikisiki, within the OR Tambo District Municipality (ORTDM) in the Eastern Cape. The LRWSS is proposed to augment the existing water supply to the region between Lusikisiki (approximately 15km inland), and the coast, extending from the Mzimvubu River in the south west to the Msikaba River in the north east. An Environmental Impact Assessment (EIA) for the LRWSS has been completed and awaits approval from the Department of Environmental Affairs (DEA).

The LRWSS will include the construction of an Earth Core Rockfill Dam on the Xura River. Borrow areas within the dam basin cannot provide sufficient impervious material (residual and completely weathered dolerite) for the clay core of an embankment dam, but large quantities of impervious material is available in borrow areas located within a 2 km radius downstream of the dam (borrow pits 1 and 2).

In terms of Section 106 of the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002; MPRDA) DWS is exempted from the application for a Mining Right for the two borrow pits but is not exempted from the application for environmental authorisation for the borrow pits.

EOH Coastal & Environmental Services (EOH CES) has been appointed by DWS as the Environmental Assessment Practitioner (EAP) to undertake the EIA for the proposed borrow pits.

Environmental Authorisation in South Africa 1.2

The regulation and protection of the environment within South Africa occurs mainly through the application of various items of legislation, within the regulatory framework of the Constitution (Act 108 of 1996).

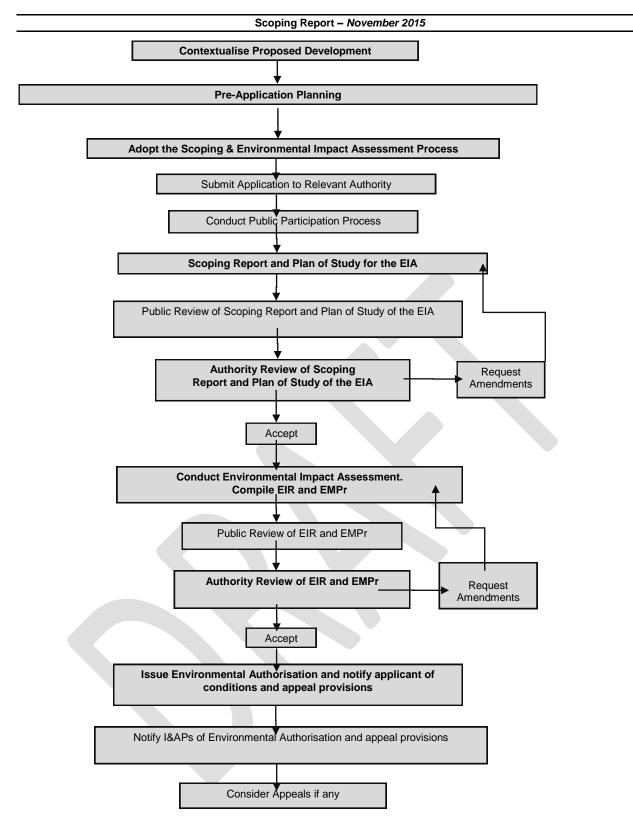
The primary legislation regulating Environmental Impact Assessments (EIA) within South Africa is the National Environmental Management Act (NEMA, Act 107 of 1998). NEMA makes provision for the Minister of Environmental Affairs to identify activities which may not commence prior to authorisation from either the Minister or the provincial Member of the Executive Council (MEC). In addition to this, NEMA also provided for the formulation of regulations in respect of such authorisations.

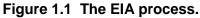
The EIA regulations (2014) allow for a Basic Assessment process for activities with limited environmental impact (listed in GNR. 983 and 985, 2014) and a more rigorous two-tiered approach for activities with potentially greater environmental impact (listed in GNR, 984, 2014). This twotiered approach includes both a Scoping and EIA process (Figure 1.1).

Government Notice	Activity Number	Activity Description	Relevance to this project
GNR 984	17	Any activity including the operation of that activity which requires a mining right as contemplated in Section 22 of the MPRDA (2002), including associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource, including activities for which an exemption has been issued in terms of Section 106 of the MPRDA.	1,5 Ha in size) will be used for construction of the proposed Zalu Dam wall.

1

The proposed borrow pits require a Full Scoping and EIA due to the following trigger:





1.3 Scoping Phase

The Scoping Phase is designed to determine the "scope" of the subsequent Environmental Impact Assessment (EIA), conducted in fulfilment of the application for authorisation. The overall aim of the Scoping Phase is to determine those environmental issues and impacts associated with the proposed borrow pits that require further investigation in an EIA. The purpose of scoping is therefore to identify:

- Issues
- Impacts
- Alternatives

An integral part of the Scoping Phase is the initial public participation process (PPP). This process ensures that all possible interested and affected parties (I&APs) are informed of the proposed activity and are provided with an opportunity to comment and identify issues.

1.4 Nature and Structure of this Report

This report fulfils the requirement of the EIA Regulations (2014) for the documentation of the Scoping Phase. The structure of this report is based on APPENDIX 2 of GNR No. 982, of the Environmental Impact Assessment Regulations (2014), which clearly specifies the required content of a Scoping Report.

1.5 Assumptions and Limitations

This report is based on currently available information and, as a result, the following limitations and assumptions are implicit–

- The report is based on project information provided by the client.
- Descriptions of the natural and social environments are based on limited fieldwork and available literature. More information will be provided in the EIA phase.
- The level of technical information is at feasibility phase and not at implementation phase of the development.

1.6 Details and Expertise of the Environmental Assessment Practitioner

In terms of APPENDIX 2(2) of the EIA Regulations (2014), a Scoping Report must include -

- (a) Details of-
 - (i) The EAP who prepared the report; and
 - (ii) The expertise of the EAP, including a curriculum vitae.

In fulfilment of the above-mentioned legislative requirement the details of the Environmental Assessment Practitioner (EAP) that prepared this draft scoping report as well as the expertise of the individual members of the study team are provided below.

1.6.1 Details of the EAP

EOH CES was established in 1990 as a specialist environmental consulting company.

EOH CES has considerable experience in terrestrial, marine and freshwater ecology, the Social Impact Assessment (SIA) process, State of Environment Reporting (SOER), Integrated Waste Management Plans (IWMP), Environmental Management Plans (EMPs), Spatial Development Frameworks (SDF), public participation, as well as the management and co-ordination of all aspects of the Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) processes. EOH CES has been active in all of the above fields, and in so doing have made a positive contribution towards environmental management and sustainable development in the Eastern Cape, South Africa and many other African countries. We believe that a balance between development and environmental protection can be achieved by skilful, considerate and careful planning.

1.6.2 Expertise of the study team

Dr Alan Carter (EAP)

Alan is the executive of the CES East London Office. He holds a PhD in Marine Biology and is a certified Public Accountant, with extensive training and experience in both financial accounting and environmental science disciplines with international accounting firms in South Africa and the USA. He has 25 years' experience in environmental management and has specialist skills in sanitation, coastal environments and industrial waste. Dr Carter is registered as a Professional Natural Scientist under the South African Council for Natural Scientific Professions (SACNASP). He is also registered as an EAP by the Environmental Assessment Practitioners of South Africa (EAPSA).

Mr Roy de Kock

Roy is a Senior Consultant holding a BSc Honours in Geology and an MSc in Botany from the Nelson Mandela Metropolitan University in Port Elizabeth. His MSc thesis focused on Rehabilitation Ecology using an open-cast mine as a case study. He has been working for CES since 2010, and is based at the East London branch where he focuses on Ecological and Agricultural Assessments, Geological and Geotechnical analysis, Environmental Management Plans, mining applications and various environmental impact studies. Roy has worked on numerous projects in South Africa, Mozambique and Malawi.

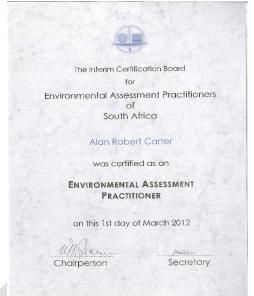
Ms Caitlin Smith

Environmental Consultant. Caitlin holds a BSc degree with majors in Geology and Geography as well as a BSc Honours degree in Geology both from Nelson Mandela Metropolitan University. Caitlin's honours thesis involved a petrographic study and scanning electron microscope analysis of kimberlite material. Caitlin has four years' experience as a geologist in the heavy mineral sand mining industry.

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2. LOCATION OF ACTIVITY

In terms of APPENDIX 2(2) of the EIA Regulations (2014), a Scoping Report must include -

- b) The location of the activity, including -
 - (i) The 21 digit Surveyor General code of each cadastral land parcel;
 - (ii) Where available, the physical address and farm name;
 - (iii) Where the required information in terms of (i) and (ii) is not available, the coordinates of the boundary of the property or properties;
- c) A plan which locates the proposed activity or activities applied for at an appropriate scale

The proposed borrow pits are located approximately 10 km north-west of Lusikisiki in the Ingquza Hill Local Municipality (OR Tambo District Municipality). Borrow pit 1 and 2 are located approximately 0,5 km and 1,7 km downstream of the proposed Zalu dam (Figure 2.1). Property details and the 21 Digit SG code of the affected farm are illustrated in Table 2.1 below. Coordinates of the proposed borrow pits are illustrated in Table 2.2 and 2.3. The study area for this report is the planned borrow pit areas and a distance of 500 m surrounding them.

Table 2.1: Property details

Province	Eastern Cape	
District Municipality	OR Tambo District Municipality (ORTDM)	
Local Municipality	Ingquza Hill Local Municipality	
Farm numbers	No name	
	Farm 116.	
21 digit SG code	C0960000000011600000	

Table 2.2: Coordinates of the corner points of borrow pit 1

Latitude (S) (DDMMSS)	Longitude (E) (DDMMSS)
31°19'1.92"S	29°28'44.98"E
31°19'10.92"S	29°29'1.21"E
31°19'18.53"S	29°28'52.87"E
31°19'16.04"S	29°28'48.92"E

Table 2.3: Coordinates of the corner points of borrow pit 2

Latitude (S) (DDMMSS)	Longitude (E) (DDMMSS)
31°19'37.82"S	29°29'0.86"E
31°19'54.87"S	29°29'13.96"E
31°19'58.29"S	29°29'7.58"E
31°19'50.40"S	29°28'55.58"E



Plate 2.1. Location of borrow pit 1.



Plate 2.2 Location of borrow pit 2.

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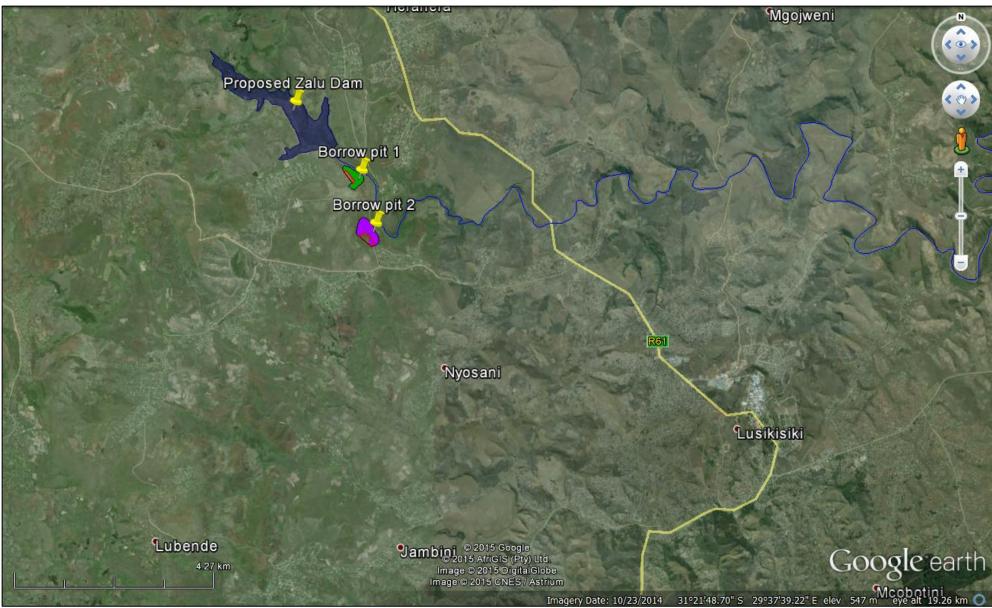


Figure 2.1. Locality map of the proposed borrow pits.

3. PROJECT DESCRIPTION

In terms of Section APPENDIX 2(2) of the EIA Regulations (2014), a Scoping Report must include -

- d) A description of the scope of the proposed activity, including -
 - (i) All listed and specified activities triggered;
 - (ii) A description of the activities to be undertaken, including associated structures and infrastructure

3.1 Description of Proposed Activity

DWS has completed a detailed feasibility study for the Augmentation of the LRWSS at Lusikisiki, within the OR Tambo District in the Eastern Cape. The LRWSS is proposed to augment the existing water supply to the region between Lusikisiki (approximately 15 km inland), and the coast, extending from the Mzimvubu River in the south west to the Msikaba River in the north east. An EIA for the LRWSS has been completed and awaits approval from DEA.

The LRWSS will include the construction of an Earth Core Rockfill Dam (the proposed Zalu Dam) on the Xura River. Borrow areas within the dam basin cannot provide sufficient impervious material (residual and completely weathered dolerite) for the clay core of an embankment dam, but large quantities of impervious material is available in borrow areas located within a 2 km radius downstream of the dam (borrow pits 1 and 2).

The affected areas and volumes of material removed from the borrow pits is illustrated in Table 3.1 and 3.2. Approximately 32 800 m³ and 64 000 m³ of topsoil will be removed using an excavator from borrow pit 1 and 2. This topsoil will be stockpiled in demarcated areas and will be used to fill the excavation and level the slopes once mining is complete. The dolerite material will be removed using an excavator, loaded onto trucks and transported to the proposed Zalu Dam.

A perimeter fence will be constructed around the borrow areas and an access road will possibly need to be constructed for borrow pit 1 (Figure 3.1). Borrow pit 2 is accessible via existing gravel roads.

	Area (hectare)		
	Borrow pit 1	Borrow pit 2	
Area impacted	12	19	
Mining area	10	16	
Stockpile area	1,7	3,7	

Table 3.1. Size of borrow pits.

Table 3.2. Volumes of material to be removed.

	Estimated volume (m ³)			
Type of material	Borrow pit 1	Borrow pit 2		
Overburden for spoil: Organic	32 800	64 000		
topsoil				
Impervious fill: Residual and	410 000	880 000		
completely weathered dolerite				
Total	442 800	944 000		

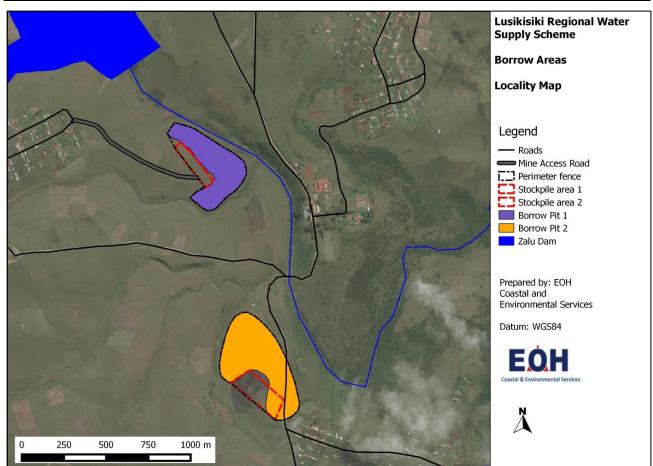


Figure 3.1. Proposed layout of the borrow pit areas.

3.2 Listed activities triggered

The proposed borrow pits trigger the need for a Full Scoping and EIA process under the NEMA Regulations (2014) in terms of Listing Notices 1, 2 and 3 and published in Government Notices No. R. 983, R. 984 and R. 985, respectively. The listed activities that have been applied for are provided in Table 3.3 below.

Government Notice	Activity Number	Activity Description	Relevance to this project
GNR 983	22	The decommissioning of any activity requiring (i) a closure certificate in terms of Section 43 of the MPRDA (2002).	 Decommissioning of the borrow pits once mining is complete will require a closure certificate.
GNR 984	15	The clearance of an area of 20 hectares or more of indigenous vegetation.	 Mining activities will require the removal of more than 20 hectares of indigenous vegetation for both borrow pits.
GNR 984	17	Any activity including the operation of that activity which requires a mining right as contemplated in Section 22 of the MPRDA (2002) including associated infrastructure, structures and earthworks, directly related to the extraction of a mineral resource, including activities for which an exemption has been issued in terms of Section 106 of the MPRDA.	 Two borrow pits (each larger than 1,5 Ha in size) will be used for construction of the proposed Zalu Dam wall. Any activity which requires a mining right, including activities for which an exemption has been issued, require that an application for environmental authorisation be submitted to DMR.

Table 3.3: Listed activities triggered by the proposed borrow pits

4. RELEVANT LEGISLATION

In terms of Section APPENDIX 2(2) of the EIA Regulations (2014), a Scoping Report must include –

e) A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.

4.1 Relevant Legislation and Guidelines used in the Compilation of this Scoping Report

The table below (Table 4.1) summarises the legislation that is relevant to the proposed borrow pits.

Title of Environmental Legislation, Policy or Guideline	Implications for the proposed borrow pits
Constitution Act (108 of 1996)	 Obligation to ensure that the borrow pits will not result in pollution and ecological degradation; and Obligation to ensure that the proposed borrow pits are ecologically
	sustainable, while demonstrating economic and social development.
National Environmental Management Act (NEMA) (107 of 1998)	 The developer must be mindful of the principles, broad liability and implications associated with NEMA and must eliminate or mitigate any potential impacts.
	 any potential impacts. The developer must also be mindful of the principles, broad liability and implications of causing damage to the environment.
	 The developer must also comply with the EIA Regulations (2014) in the terms of the Act which specifies when an environmental authorisation is required and the nature of the EIA process.
Mineral and Petroleum	• The purpose of the Act is to regulate the prospecting for and the
Resources Development Act (Act No. 28 of 2002)	optimal exploitation, processing and utilization of minerals; to regulate the orderly utilization and the rehabilitation of the surface
ACI (ACI NO. 20 01 2002)	of land during and after prospecting and mining operations; and to provide for matters connected therewith.
	• DWS is exempted from the application for a Mining Permit/Right, but is not exempted from an application for Environmental Authorisation.
	 Any activities requiring extraction of sand or hard rock for construction purposes will require the submission of an application to DMR for Environmental Authorisation.
National Environmental Management: Waste Act (59 of 2008)	 The proponent must ensure that all activities associated with the project address waste related matters in compliance with the requirements of the Act.
National Water Act (36 of 1998)	Appropriate measures must be taken to prevent the pollution of watercourses.
	Riparian zones must be protected.Any mining activity that takes place within a watercourse or within
	500 m of a wetland will require a water use licence (section 21(c) and (i) of the National Water Act).
National Heritage	• The Act requires all developers (including mines), to undertake
Resources Act (Act No. 25 of 1999)	cultural heritage studies for any development exceeding 5000 m ² in size. It also provides guidelines for impact assessment studies

Table 4.1: Environmental legislation considered in the preparation this Scoping Report.

Title of Environmental Legislation, Policy or Guideline	Implications for the proposed borrow pits		
	 to be undertaken whenever cultural resources may be destroyed by development activities. ECPHRA/ SAHRA needs to be informed of the project. Should heritage resources be identified during mining, appropriate measures must be undertaken to involve ECPHRA/ SAHRA and to protect these resources. 		
Mine Health and Safety Act (Act No. 29 of 1996)	 The key objectives of the Act are to provide for the health and safety of persons at work and in connection with the use of plants and machinery. This Act will be applicable during all phases of the project and therefore necessary measures should be taken to ensure compliance. 		
Air Quality Act (Act No. 39 of 2004)	 The purpose of this Act is to provide for national norms and standards regulating air quality monitoring, management and control. This Act will be applicable during all phases of the project. The necessary measures must be taken to ensure compliance. 		
Conservation of Agricultural Resources Act (No. 43 of 1983)	 If any declared weed and/or invader species listed in terms of this Act is present on site, it must be removed. 		

At this stage in the EIA process this list should not be regarded as definitive or exhaustive, and it is probable that additional legislative requirements will be identified as the process progresses.

4.2 National Policy

The national policy below is relevant to the proposed borrow pits.

4.2.1 National Infrastructure Plan

In 2012, the South African Government adopted a National Infrastructure Plan. The objectives of the plan are to identify and implement key infrastructure projects that will stimulate the economy by infrastructure development that will combine the goals of ensuring service delivery and at the same time creating jobs.

The investment into infrastructure projects is anticipated to improve access by South Africans to healthcare facilities, schools, water, sanitation, housing and electrification, whilst the construction of ports, roads, railway systems, electricity plants, hospitals, schools and dams will contribute to faster economic growth.

In order to implement the goals and objectives of the National Infrastructure Plan, a number of Strategic Infrastructure Projects (SIPs) have been developed. The construction of the proposed LRWSS forms part of SIP 18 which speaks directly to Water and Sanitation infrastructure. SIP 18 involves a 10 year plan to address the estimated backlog of adequate water to supply 1,4 m households and 2,1 m households to basic sanitation. The project will involve provision of sustainable supply of water to meet social needs and support economic growth. These projects include provision for new infrastructure, rehabilitation and upgrading of existing infrastructure, as well as improve management of water infrastructure.

4.3 Municipal by-laws and planning

The municipal plan below is relevant to the proposed borrow pits.

4.3.1 The Ingquza Hill Local Municipality IDP (2014/2015)

According to the IHLM Integrated Development Plan (IDP), the Municipality is faced with huge household, community and economic infrastructure backlogs. Major challenges include lack of access roads, incomplete roads and poor road maintenance. Water infrastructure is highlighted as a major challenge.

5. PROJECT NEED & DESIRABILITY

In terms of Section APPENDIX 2(2) of the EIA Regulations (2014), a Scoping Report must include –

f) A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location.

The proposed borrow pits will be used for construction of the Zalu Dam, one of the main components of the LRWSS. The LRWSS falls within the Ingquza Hill (IHLM) and Port St Johns (PSJLM) Local Municipalities in the ORTDM.

ORTDM is one of the most densely populated regions within the country with a population of 1 364 943. The IHLM accounts for about 20% of this population and the PSJLM accounts for about 11% of this population (StatsSA, 2011).

5.1 Access to Water and Sanitation

5.1.1 Ingquza Hill Local Municipality

In 2011 the percentage of the population in the IHLM with no access to piped water was 69.2%. Only 3,7% of the population have piped water in their homes and 63,4% of the population use rivers/streams for water (Figure 5.1).

A large percentage of the population uses pit latrines (66,7%) and 19,2% of the population have no toilets. Only 2,4% of the population have flush toilets connected to the sewerage system (StatsSA, 2011).

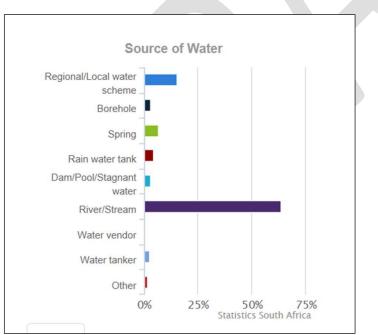


Figure 5.1. Sources of water for the IHLM (StatsSA, 2011).

5.1.2 Port St Johns Local Municipality

According to StatsSA, in 2011 65,3% of the PSJLM population did not have access to piped/tap water. Only 2,7% of the population have piped water inside their homes and 59,8% rely on rivers/streams for water (Figure 5.2).

The bulk of the PSJLM population (54,2%) uses pit toilets, only 3% have flush toilets that are connected to a sewerage system and 31,1% of the population does not have access to toilet facilities.

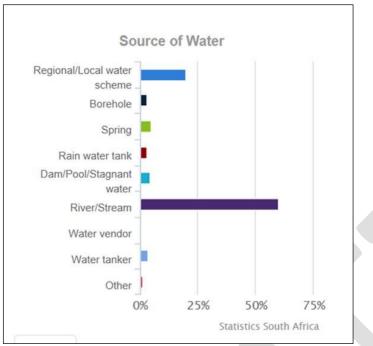


Figure 5.2. Sources of water for the PSJLM (StatsSA, 2011).

There is a need to provide not only potable water services to more households within the LRWSS study area, but also to assist the municipalities with sustainable and clean water provision. At present, the ORTDM has a number of water schemes under its area of jurisdiction. In order to deal with the need for water supply, boreholes are used in some areas. Water is pumped from the borehole into a rainwater tank and is then collected in buckets. In most instances these systems are poorly maintained and non-functional.

5.2 The Constitution

The Constitution places the responsibility on government to ensure that basic services are progressively expanded to all, within the limits of available resources. These basic services include:

- Housing,
- Education,
- Health care,
- Social welfare,
- Transport,
- Electricity and energy,
- <u>Water</u>,
- Sanitation and refuse and waste removal.

Without the construction of the proposed LRWSS (using the proposed borrow pits for construction of the proposed Zalu dam wall), it is unlikely that the state will be able to fulfil this responsibility.

6. PROJECT ALTERNATIVES

In terms of Section APPENDIX 2(2) of the EIA Regulations (2014), a Scoping Report must include –

h) A full description of the process followed to reach the proposed preferred activity, site and location within the site, including –
 (i) Details of all the alternatives considered;

(i) Details of all the alternatives considered;

One of the objectives of an EIA is to investigate alternatives to the proposed project. There are two types of alternatives: Fundamental Alternatives and Incremental Alternatives.

6.1 Reasonable and Feasible Alternatives

Alternatives should include consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The no-go alternative must also in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment.

"Alternatives", in relation to a proposed activity, refers to different means of meeting the general purpose and requirements of the activity, which may include alternatives to; -

- a) the property on which or location where it is proposed to undertake the activity.
- b) the type of activity to be undertaken.
- c) the design or layout of the activity.
- d) the option of not implementing the activity.

6.2 Fundamental Alternatives

Fundamental alternatives are developments that are totally different from the proposed project description and usually include the following:

- Alternative property or location where it is proposed to undertake the activity.
- Alternative type of activity to be undertaken.
- Alternative technology to be used in the activity.

6.3 Incremental Alternatives

Incremental alternatives relate to modifications or variations to the design of a project that provide different options to reduce or minimise environmental impacts. There are several incremental alternatives that can be considered, including:

- Alternative design or layout of the activity.
- Alternative technology to be used in the activity.
- Alternative operational aspects of the activity

6.4 No-Go development

The EIA process is obligated to assess the status quo (i.e. the "No-Go" option). The No-Go alternative provides the assessment with a baseline against which predicted impacts resulting from the proposed development may be compared. A "No-Go" alternative has been assessed for the proposed borrow pits.

6.5 Analysis of alternatives

Table 6.1 illustrates the methodology used to assess the identified alternatives. The table assesses the advantages and disadvantages, and provides further comments on the selected alternatives.

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Table 6.1: The alternatives for the proposed borrow pits.

Alternative level	Alternatives	Advantages	Disadvantages	Reasonable and feasible	Further assessment	Comment
Property or location (Fundamental location alternative)	Alternative location 1 - Current proposed site (preferred alternative).	 The proposed borrow pits are located within 2 km of the proposed Zalu Dam. The geology in these locations is ideal for the type of material required for construction of a zoned embankment dam i.e. impervious material. HKS conducted a geological investigation of the area and BKS conducted a technical feasibility study. Test pit samples indicate that these borrow pit sites have the right material required for construction of the dam wall. 	 Approximately 31 hectares of Ngongoni Veld will be lost due to mining activities. Loss of rural grazing/ agricultural land. 	YES	YES	The main determining factors for selecting the proposed location were:- - Appropriate geology of the area. - Location in relation to the dam site.

	Scoping Report – November 2015					
Alternative level	Alternatives	Advantages	Disadvantages	Reasonable and feasible	Further assessment	Comment
	Alternative location 2 – None identified.	N/A	N/A	N/A	N/A	 Alternative locations for the proposed borrow pits are limited and probably not reasonable or feasible due to inappropriate geology. The appropriate geology was considered a critical aspect. No alternative location will be assessed in the impact assessment.
Type of technology This refers to the fundamental technology options required to operate the borrow pits.	Alternative technology 1 – Opencast mining using excavators and transporting material using trucks (preferred alternative).	 Less time spent on site Lower labour requirements 	 Less job creation due to lower labour requirements 	YES	YES	This is the preferred and feasible mining method.
	Alternative technology 2 – None chosen because the preferred mining method is a proven and feasible method.	N/A	N/A	N/A	N/A	No other mining methods will be assessed further in the impact assessment.
Layout alternative	Alternative layout 1 – Current proposed	 The proposed layout of the 	 The proposed layouts of the 	YES	YES	This is the preferred layout (based on

	Scoping Report – November 2015					
Alternative level	Alternatives	Advantages	Disadvantages	Reasonable and feasible	Further assessment	Comment
alternative.	layout (preferred alternative).	borrow pits is ideal based on test pit samples taken of these sites and previous geological/geotec hnical studies.	two borrow pits are both in close proximity to two non- perennial rivers with possible environmental impacts.			geological conditions) and will be assessed further in the impact assessment.
	Alternative layout 2 – none chosen because the preferred mining area layout is ideal based on geological/ geotechnical investigations.	N/A	N/A	N/A	N/A	No other layout will be assessed further in the impact assessment.
No-go option This refers to the current status quo and the risks and impacts associated with it.	Current land use of the proposed site is rural grazing and agricultural land.	 Area will not be disturbed by mining operations. Less damage to the environment. 	 Material from a possibly far alternative location will have to be sourced for construction of the dam wall, which might not be feasible. Will affect socio-economic development in the region. Area will suffer extensive erosion due to grazing. 	YES	YES	Will be assessed further in the impact assessment process.

7. PUBLIC PARTICIPATION

In terms of Section APPENDIX 2(2) of the EIA Regulations (2014), a Scoping Report and must include -

- h) A full description of the process followed to reach the proposed preferred activity, site and location within the site, including
 - (ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;
 - (iii) A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them.

7.1 Notification of Interested and Affected Parties

7.1.1 Public Participation

Public consultation is a legal requirement throughout the EIA process. The proponent is required to conduct public consultation throughout the Scoping and EIR phase. Formal EIA documents are required to be made available for public review and comment by the proponent, these include the Project Brief, Scoping Report and Terms of Reference for the EIA, the draft and final EIA reports and the decision of the Competent Authority. The method of public consultation to be used depends largely on the location of the development and the level of education of those being impacted on by the project. Required means of public consultation include:

- Site notice/s;
- Newspaper advertisements;
- Letter of Notification to affected landowner(s), stakeholders and registered I&APs;
- Background Information Document (BID) distribution;
- Focus group site meeting (Attendance and meeting minutes);
- Authority and Stakeholder engagement (DMR, DEA, DEDEAT, DWS).

7.1.2 Newspaper advertisement

The LRWSS was advertised in the Daily Dispatch on 10 July 2014 and again on 24 June 2015 (Appendix A). These adverts included notification that a mining application would be lodged with DMR. A new advert will be placed in the Daily Dispatch once the draft Scoping Report goes out for public review. This advert will provide detail about the proposed borrow pits and provide Interested & Affected parties with an opportunity to register and comment on the draft report.

7.1.3 On-site Notice

Notice boards were placed next to the Palmerton Mission and Palmerton High School as well as at various other locations within the LRWSS study area (Appendix A). A new site notice (specific to the EIA process for the borrow pits) was also placed near the borrow pit sites.

7.1.4 Stakeholders and I&APs

During the EIA for the LRWSS certain stakeholders were identified based on their potential interest in the project. These stakeholders were contacted either via e-mail or telephone for comment and were sent a Letter of Notification (LON) and a Background Information Document (BID). The borrow pits were discussed in the public meetings in the Scoping and EIA phase of the LRWSS, but no issues were raised by the community. A full list of stakeholders and I&APs (who registered or attended public meetings during the LRWSS EIA process) is available in Appendix A. These stakeholders will be notified of the EIA process for the borrow pits and any comments received will be incorporated into the Final Scoping and EIA reports. Any new I&APs will be added to this list.

7.1.5 Background information document

A background information document (BID) was distributed for the LRWSS EIA. A new BID for the borrow pits will be distributed to identified stakeholders and I&APs when the draft Scoping Report goes out for public review (Appendix A).

7.1.6 Proof of notification

Stakeholders and I&APs will be notified via email/registered mail/ telephonically about the proposed borrow pits as well as of the availability of the draft Scoping Report for review.

7.1.7 Issues raised by stakeholders/ I&APs

The following comment relating to the proposed borrow pits was received during the EIR phase for the LRWSS:

Raised by	Event	Issue/Concern/Comment	Reply/Action
Agnes	0	I am interested because I own a valid	Noted.
Mzobothsi	an I&AP during		
(Mzintlava	the LRWSS		
Quarry).			
	review period.	is no other woman-owned mine around	
Owner of a		that can supply material for the	
dolerite quarry		construction of the project in question .	
in PSJLM (10			
km from			
Lusikisiki).			

The Issues and Response Trail is updated throughout the EIA process and will include all comments received until submission of the final EIR to the competent authority.

8. DESCRIPTION OF THE ENVIRONMENT

In terms of Section APPENDIX 2(2) of the EIA Regulations (2014), a Scoping Report must include –

- h) A full description of the process followed to reach the proposed preferred activity, site and location within the site, including
 - (iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;

8.1 The Bio-Physical Environment

8.1.1 Current land use

The majority of the study area has been transformed by anthropogenic activities such as overgrazing and active clearing/burning for improved pastures. The area is used for communal grazing and this area is generally overgrazed by livestock such as cattle, goats and sheep. There is limited agriculture in the area and what does exist occurs mostly near homesteads (Figure 8.1).

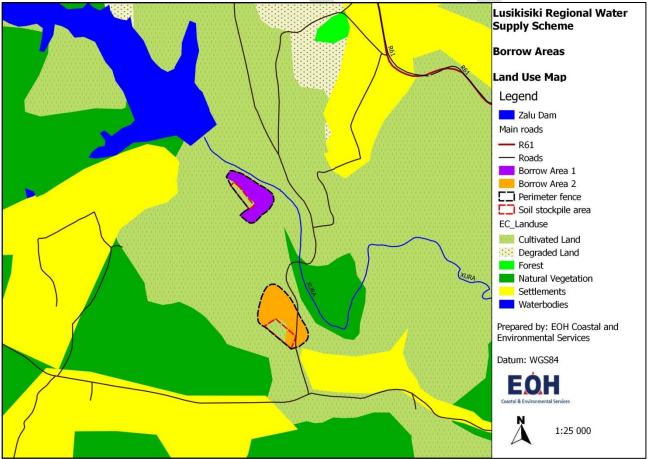


Figure 8.1. Land use map for the study area.

8.1.2 Climate

The borrow pits are located within 10 km of Lusikisiki in the Eastern Cape. Lusikisiki normally receives about 874 mm of rain per year, with most rainfall occurring during summer. It receives the lowest rainfall (12 mm) in July and the highest (124 mm) in February. The average midday temperature for Lusikisiki ranges from 20,2°C in July to 25,5°C in February. The region is the coldest during July when the mercury drops to 8°C on average during the night.

8.1.3 Topography

The topography of the study area is characterised by gentle undulating hills. The borrow pits are underlain by hard dolerite. Elevations range from about 590 to 640 masl (Figure 8.2).

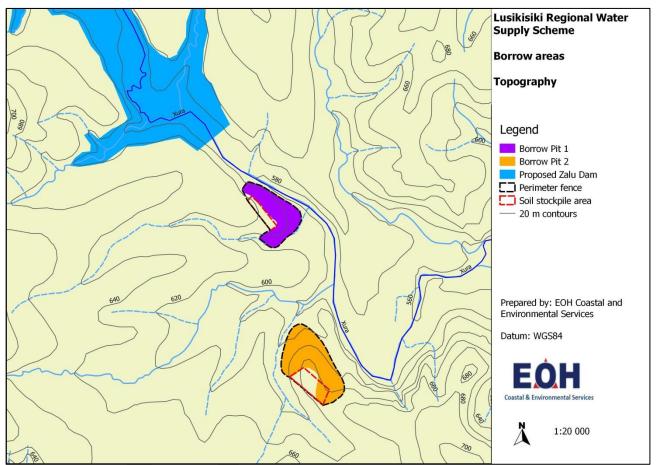


Figure 8.2. Topography of the study area.

8.1.4 Geology and soils

The study area generally consists of shale of the Karoo Supergroup that has been intruded by Karoo dolerite sills (Figure 8.3). The borrow pits themselves are underlain by dolerite from these sills. According to AGIS online (http://www.agis.agric.za/) the study area consists of soils with minimal development, usually shallow, on hard or weathering rock.

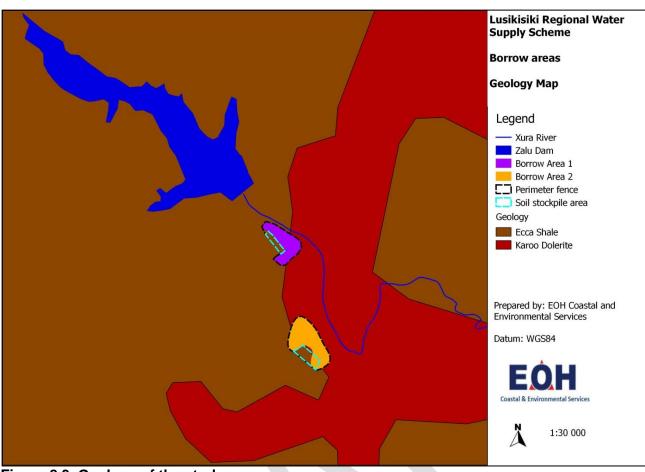


Figure 8.3. Geology of the study area.

8.2 Rivers and wetlands

The borrow pits are bordered on the north-eastern side by the Xura River. The Present Ecological Status (PES) of the Xura River is **Class B** indicating that it is largely natural. A small change in natural habitat and biota has taken place. According to the National Spatial Biodiversity Assessment (NSBA, 2004) the Xura River is classified as **vulnerable** and it is classified as an **Upstream Management Area** (areas where human activities need to be managed to prevent degradation of downstream river FEPAs and Fish Support Areas) according to the National Freshwater Ecosystem Priority Areas (NFEPA) database. There are also two non-perennial rivers in close proximity to the borrow pits (Figure 8.4). The NFEPA wetland database indicates that there are a number of natural wetlands near the borrow pits. Any construction/ mining activity within 500 m of a wetland or within a watercourse will require authorisation from DWS.

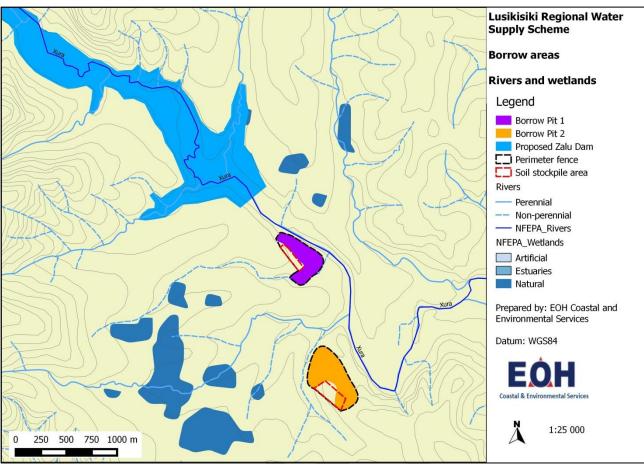


Figure 8.4 Rivers and wetlands in the study area.

8.3 Vegetation

8.3.1 Mucina and Rutherford

Mucina and Rutherford (2006) have developed the National Vegetation map as part of a South African National Biodiversity Institute (SANBI) funded project: "to provide floristically based vegetation units of South Africa, Lesotho and Swaziland at a greater level of detail than had been available before." The map was developed using a wealth of data from several contributors and has resulted in the best national vegetation map to date, the previous being that of Adcocks developed over 50 years ago. This map forms the base of finer scale bioregional plans such as Sub-tropical Thicket Ecosystem Plan (STEP).

The map and accompanying book describe each vegetation type in detail, along with the most important species including endemic species and those that are biogeographically important and is the most comprehensive data for vegetation types in South Africa.

Mucina and Rutherford (2006) define the vegetation type that occurs within the project area as **Ngongoni veld** (Figure 8.5). Ngongoni veld occurs in the KwaZulu-Natal and Eastern Cape Provinces from Melmoth in the north to Libode in the former Transkei. It is characterised as being dense, tall grassland dominated by *Aristida junciformis* with low species diversity. This vegetation type is classified as **Vulnerable** with a conservation target of 25%. Less than 1% is statutorily conserved in the Opathe and Vernon Crookes Nature Reserves. Approximately 39% has been transformed for cultivation, plantations and urban development.

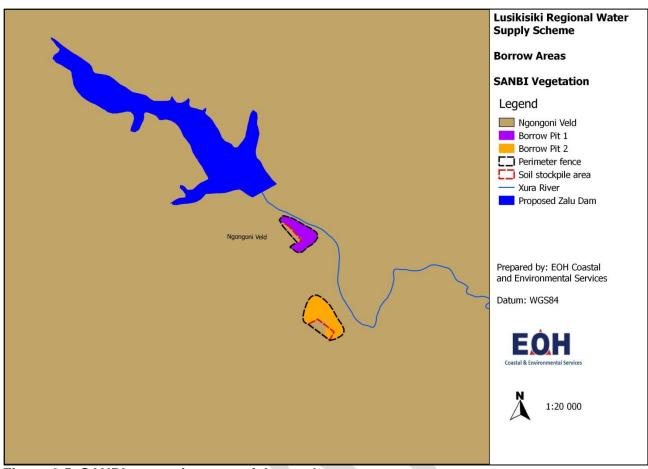


Figure 8.5. SANBI vegetation map of the study area.

8.4 Floristics

Flora refers to the particular plants that occur in an area, with reference to not only the species which it contains, but also the genera or families. Plants are not evenly distributed, as they are confined to defined geographical ranges, and botanists classify the different ranges of species into regions, referred to as phytogeographic regions. These are very often associated with biophysical features such as geology, aspect, soils, climate and topography. Plants endemic to the Cape region are thus those that form the natural characteristics of the Cape flora and are confined to this region.

White (1983) defined regional centres of endemism as geographical regions with a particular combination of endemic plant species. White's regions (1983) of particular concern in this study area are the Maputuland-Pondoland region, stretching down the coast of south-east Africa and the Afromontane region, which extends down the mountainous areas of Africa into southern Africa.

Species endemic to the area are described by Mucina and Rutherford (2006). In addition to the endemic taxa, a number of protected species occur in the study area. The list of species requiring protection is not complete as many species and taxa require additional study. The taxa with deficient data include specifically members of the Amaryllidaceae (Amaryllids), Iridaceae (Irises), Orchidaceae (Orchids) and Apocynaceae (Lianas), as well as members of the genus Aloe.

Potential Species of Conservation Concern (SCC) identified in the study area include all those plants listed in terms of the IUCN, CITES and both national and provincial legislation that may occur in the area of study.

8.5 Fauna

8.5.1 Amphibians

Amphibians are important in wetland systems, particularly where fish are excluded or of minor importance. In these habitats, frogs are dominant predators of invertebrates. Reports of declining amphibian populations continue to increase globally, even in pristine protected areas (Phillips 1994). These declines are not simple cyclic events; for example, frogs have been identified as bio-indicator species that reflect the wellbeing of aquatic ecosystems (Poynton and Broadley 1991). Frog abundance and diversity is a reflection of the general health and well-being of aquatic ecosystems. According to historical records, 23 species of frog have been documented in the Quarter Degree Squares that the study area falls in. One of these species is listed as Endangered (*Natalobatrachus bonebergi* – Boneberg's Frog/ Natal Diving Frog) and one is listed as Vulnerable (*Afrixalus spinifrons* – Natal Banana Frog).

Boneberg's Frog/Natal Diving Frog/ Kloof Frog has a distribution that ranges from Dwesa Nature Reserve in the Eastern Cape Province east to southern and central Kwa-Zulu Natal (SAFRoG, 2012). Its Area of Occupancy is estimated to be 150 km² (and declining). It occurs in nine locations, all between 50 and 900 masl. Its habitat preference is in coastal forests and gallery forests along streams. It is unlikely that this species will occur within the project area as it is too far inland and the level of degradation due to the current land use is likely to preclude this species from the area (Conradie, pers. comm).

The **Natal Banana Frog** is associated with low growing vegetation in shrubland and dry forest and breeds in vleis (including dams) and temporary pools and dams (SA-FROG, 2012). It creates egg nests on emergent vegetation within these areas. This species is endemic to South Africa and occurs as two subspecies.

8.5.2 Birds

Nine bird species are endemic to South Africa, but there are no Eastern Cape endemics. However, there are 62 threatened bird species within the Eastern Cape Province (Barnes, 2000). Most of these species occur in grasslands or are associated with wetlands, indicating a need to conserve what is left of these ecosystems (Barnes, 2000). Historical records indicate that there are three **Endangered** species, eight **Vulnerable** species and eight **Near Threatened** species likely to occur in the project area (Table 8.1).

2012). Scientific Name	Common name	Red List status	NEM:BA
Balearica regulorum	Grey Crowned Crane	Endangered	Endangered
Zoothera guttata	Natal Thrush	Endangered	-
Campethera notata	Knysna Woodpecker	Near Threatened	-
Neotis denhami	Denham's Bustard	Near Threatened	Protected
Polemaetus bellicosus	Martial Eagle	Near Threatened	-
Coracias garrulus	European Roller	Near Threatened	-
Phalacrocorax capensis	Cape Cormorant	Near Threatened	-
Puffinus griseus	Sooty Shearwater	Near Threatened	-
Stephanoaetus coronatus	Crowned Eagle	Near Threatened	-
Bradypterus sylvaticus	Knysna Scrub- Warbler	Near Threatened	-
Bucorvus leadbeateri	Southern Ground- hornbill	Near Threatened	-
Geronticus calvus	Southern Bald Ibis	Near Threatened	Vulnerable
Gyps coprotheres	Cape Vulture	Near Threatened	Endangered

Table 8.1. Threatened bird	species that are lil	kely to occur in the project are	a (BirdlifeSA,
2012).			

Scientific Name	Common name	Red List status	NEM:BA
Morus capensis	Cape Gannet	Near Threatened	-
Procellaria aequinoctialis	White-chinned Petrel	Near Threatened	-
Circus maurus	Black Harrier	Vulnerable	-
Sagittarius serpentarius	Secretary Bird	Vulnerable	-

8.5.3 Mammals

It is unlikely that there are any large mammals remaining in the study area. Mammals that still occur in the area are likely to be limited to small (e.g. rodents) and the occasional medium sized animals such as duiker.

8.6 Conservation and spatial planning tools

8.6.1 Eastern Cape Biodiversity Conservation Plan

The Eastern Cape Biodiversity Conservation Plan (ECBCP) is a first attempt at detailed, low-level conservation mapping for land-use planning purposes. Specifically, the aims of the Plan were to map critical biodiversity areas through a systematic conservation planning process. The current biodiversity plan includes the mapping of priority aquatic features, land-use pressures, and critical biodiversity areas which develops guidelines for land and resource-use planning and decision-making.

The ECBCP maps Critical Biodiversity Areas (CBAs) based on extensive biological data and input from key stakeholders. CBA 1 and 2, as defined by the ECBCP, form the foundation areas where conservation is priority. CBAs provide essential ecosystem services and provide the spatial framework for future spatial development planning, particularly indicating those areas where development needs to be avoided or at best, carefully managed. The ECBCP, although mapped at a finer scale than the National Spatial Biodiversity Assessment (Driver et al., 2005) is still, for the large part, inaccurate and "course". Therefore it is imperative that the status of the environment, for any proposed development MUST first be verified before the management recommendations associated with the ECBCP are considered (Berliner and Desmet, 2007). In spite of these short-comings, the ECBCP has been adopted by the provincial department of Economic Development, Environmental Affairs and Tourism (DEDEAT) as a strategic biodiversity plan for the Eastern Cape.

Figure 8.6 illustrates that the proposed borrow pits fall within a CBA 2 area. CBA2 areas are "near natural landscapes" and it is recommended that the biodiversity in these areas is maintained in a near natural state with minimal loss of ecosystem integrity. No transformation of natural habitat should be permitted.

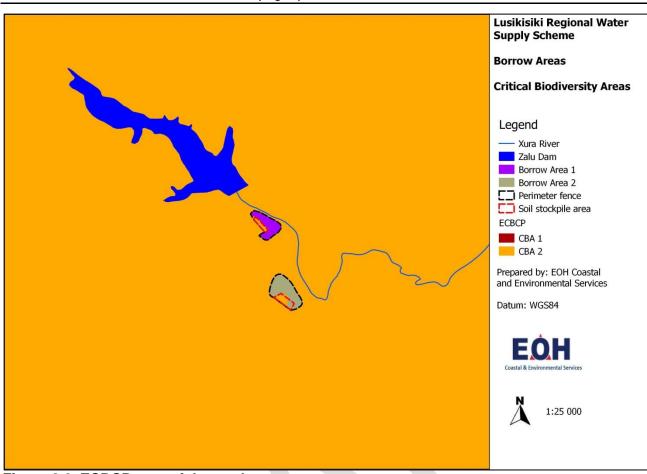


Figure 8.6. ECBCP map of the study area.

8.7 Socio-Economic Profile

The proposed borrow pits fall within the IHLM in the OR Tambo District Municipality, Eastern Cape. The IHLM covers an area of 2,477 km² and comprises the magisterial areas of Lusikisiki and Flagstaff.

8.7.1 **Population**

According to StatsSA (2011) the total population in the IHLM is 278 481, which is 20,4% of the O R Tambo Districts population. Males constitute 46% of the population (128 974) and females constitute 54% of the population (149 507). 42,4% of the population are age 14 or younger.

There seems to be an out-migration of economically active people in the age group of 20-34 years. This highlights the need for economic investment in order to retain an active workforce and a healthy male-to-female ratio in the area. According to the IHLM IDP, the "high number of young people... leaving the area... suggests that service provision and social upliftment should be targeted at the youth and should be an important consideration for development." (IHLM IDP Review, 2014-2015).

8.7.2 Employment

According to the IHLM IDP the IHLM is the second highest contributor to the ORTDM's GGP, after King Sabata Dalindyebo Local Municipality, and accounts for 9,4% of the GGP contribution to the District Municipality (IHLM, 2006). The government sector makes a significant contribution to the IHLM GGP of the municipality with a total contribution of 56%, followed by wholesale (8,7%), retail (7,8%) and agriculture & hunting at 7,4%. The remaining sectors have a contribution of less than 5% each which hampers the economic growth of the area.

According to StatsSA (2011) the unemployment rate in the IHLM is 51,6% and the youth unemployment rate is 60,6% (Figure 8.7). 17,6% of the population receive no income.

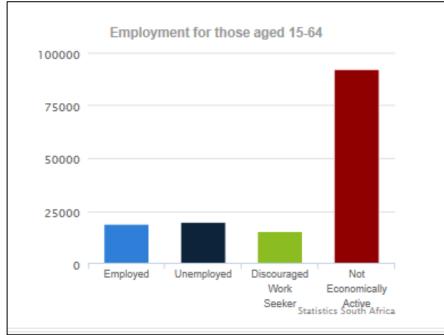


Figure 8.7. Employment in the IHLM (StatsSA, 2011).

8.7.3 Education

The level of education in the IHLM is very low. Only 0,3% of the IHLM population have education higher than matric, 4,5% have completed high school, 7,2% have completed primary school and 3,5% of the population have received no schooling (StatsSA, 2011).

9. MANNER IN WHICH THE ENVIRONMENT MAY BE AFFECTED

In terms of Section APPENDIX 2(2) of the EIA Regulations (2014), a Scoping Report must include –

- *h)* A full description of the process followed to reach the proposed preferred activity, site and location within the site, including
 - (v) The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts
 - Can be reversed;
 - May cause irreplaceable loss of resources; and
 - Can be avoided, managed or mitigated;
 - (vi) The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;
 - (vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;
 - (viii) The possible mitigation measures that could be applied and level of residual risk;
 - *(ix)* The outcome of the site selection matrix;
 - (x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and
 - (xi) A concluding statement indicating the preferred alternatives, including preferred location of the activity.

9.1 Possible Environmental Issues and Impacts

Table 9.1 to 9.4 lists the environmental issues that have been identified in the following phases of mining: planning and design, construction, operation and closure/decommissioning. A full impact assessment will take place during the EIA phase once the Plan of Study and Final Scoping Report has been accepted by the competent authority.

Table 9.1: Issues and impacts identified in the planning and design phase of the proposed borrow pits.

PLANNING AND DESIGN PHASE			
Issue	Impact	Significance	Further Assessment
Compliance with relevant policy and legislation	Failure to adhere to existing policies and legal obligations could lead to the project conflicting with local, provincial and national policies, legislation etc. This could result in a lack of institutional support for the project, overall project failure or delays in mining and undue disturbance to the natural environment.	HIGH NEGATIVE	EIA
Design of the borrow pits	An inappropriately designed borrow pit can lead to subsidence, face collapses, erosion and stormwater issues.	HIGH NEGATIVE	EIA
Geology – loss of non-renewable resources	Permanent removal of non-renewable resources due to mining activity.	MODERATE NEGATIVE	EIA
Topography – disturbance to the topography of the	Permanent disturbance to the topography of the study area due to mining activity.	MODERATE NEGATIVE	EIA

PLANNING AND DESIGN PHASE			
Issue	Impact	Significance	Further Assessment
study area			
Socio-economic	Loss of communal grazing/agricultural land.	MODERATE NEGATIVE	EIA
Impact on natural flora	Loss of approximately 31 hectares of Ngongoni Veld due to mining activity.	MODERATE NEGATIVE	EIA Ecological Impact Assessment
Sites of archaeological and cultural significance	Loss of sites of archaeological and cultural significance due to poor planning of mining areas.	MODERATE NEGATIVE	EIA Heritage Impact Assessment

Table 9.2: Issues and impacts identified in the construction phase of the proposed borrow pits.

CONSTRUCTION PHASE			
Issue	Impact	Significance	Further Assessment
Visual intrusion associated with the establishment of the mining area	Construction activity on site and the presence and use of large machinery on site and along access roads will result in a visual disturbance of the landscape.	MODERATE NEGATIVE	EIA
Location of sanitation facilities	Inappropriate siting of sanitation facilities could result in contamination of surface and ground water.	HIGH NEGATIVE	EIA
Demarcation of quarry site	Inadequate demarcation and fencing off of the borrow pits could lead to unnecessary environmental impacts.	HIGH NEGATIVE	EIA

Table 9.3: Issues and impacts identified in the operation phase of the proposed borrow pits.				
	OPERATION PHASE			
Issue	Impact	Significance	Further Assessment	
Visual intrusion associated with mining activities	The mining activities could result in a negative impact on the aesthetic value of the study area and immediate surrounds.	MODERATE NEGATIVE	EIA	
Storm water run- off related issues	Surface water runoff due to mining activities can result in soil erosion and impact surface water quality.	MODERATE NEGATIVE	EIA	
Spillage of hazardous substances such as fuel, chemicals, paint, etc.	Spillage of any hazardous substances such as fuel, chemicals, etc. can lead to the contamination of surface and groundwater.	MODERATE NEGATIVE	EIA	
Dust control	Dust will be generated from mining activities and from vehicles travelling on dirt roads. This might be a nuisance during windy conditions.	MODERATE NEGATIVE	EIA	
Noise	Mining activities and movement of heavy vehicles could result in an increase in ambient noise levels on site and on surrounding properties.	MODERATE NEGATIVE	EIA	
Waste management	During operation littering on site may attract vermin, detract from the visual appeal of the area, and pollute the surrounding areas.	MODERATE NEGATIVE	EIA	
Socio-economic	During the operation phase, jobs will be created which will benefit the local workforce.	BENEFICIAL	EIA	
Identification of archaeological and sites of cultural significance during the operation phase	Sites of archaeological or cultural significance might be uncovered and damaged.	HIGH NEGATVIE	EIA Heritage Impact Assessment	
Destruction of underlying fossils	Mining activities might result in the destruction or exposure of underlying fossils.	MODERATE NEGATIVE	EIA Paleontological Impact Assessment	
Impact on flora	Inappropriate disturbance beyond the borrow pit footprints could result in damage and loss of vegetation.	HIGH NEGATIVE	EIA Ecological Impact Assessment	

Table 9.3: Issues and impacts identified in the operation phase of the proposed borrow pits.

Table 9.4: Issues and impacts identified in the decommissioning phase of the proposedborrow pits.

DECOMMISSIONING/CLOSURE PHASE			
Issue	Impact	Significance	Further Assessment
Compliance with relevant policy and legislation	Non-compliance with legislation and closure requirements of the EMPr.	HIGH NEGATIVE	EIA
Rehabilitation of site	Failure to rehabilitate site properly using indigenous vegetation.	HIGH NEGATIVE	EIA
Sloping and landscaping	Failure to refill and level out site sufficiently.	HIGH NEGATIVE	EIA

10. PLAN OF STUDY FOR EIA PHASE

In terms of Section APPENDIX 2(2) of the EIA Regulations (2014), a Scoping Report must include: *i)* a plan of study for undertaking the environmental impact assessment process, including–

- (i) a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity.;
- (ii) a description of the aspects to be assessed as part of the environmental impact assessment process;
- (iii) aspects to be assessed by specialists;
- (iv) a description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists;
- (v) a description of the proposed method of assessing duration and significance;
- (vi) an indication of the stages at which the competent authority will be consulted;
- (vii) particulars of the public participation process that will be conducted during the environmental impact assessment process; and
- (viii) a description of the tasks that will be undertaken as part of the environmental impact assessment process;
- (ix) identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

In line with the above-mentioned legislative requirement, this Chapter sets out the Plan of Study (PoS) for the EIA phase of the assessment. Consultation with DMR will be on going throughout this EIA. However, it is anticipated that DMR will provide relevant comment with respect to the adequacy of this Plan of Study for the EIA, as it informs the content of the EIR and sufficiency thereof.

10.1 Scope and Intent of the EIA Phase

This phase includes the following steps:

10.1.1 Specialist Studies

Specialist studies include the specialist assessments identified in the Scoping Report and any additional studies required by the authorities. This requires the appointment of specialists to gather baseline information in their fields of expertise, and to assess the impacts and make recommendations to mitigate negative impacts and optimise benefits. The resulting information is synthesised into the Environmental Impact Report (EIR).

10.1.2 Environmental Impact Report.

The main purpose of this report is to gather and evaluate environmental information, so as to provide sufficient supporting arguments to evaluate overall impacts, consider mitigation measures and alternative options, and make a valued judgement in choosing the best development alternative. The EIR is made available for public and authority review. The availability of the report is advertised in the local newspaper and is situated at an easily accessible location.

10.1.3 Issues and Response Trail

The issues and response trail consists of the compilation of comments, issues and concerns raised by I&APs and the authorities and the relevant responses to these comments.

10.1.4 Environmental Management Programme (EMPr)

The EMPr informs the client and the technical team of the guidelines which will need to be followed during construction and operation to ensure that there are no lasting or cumulative negative impacts of the construction/operation process on the environment.

- The standards and guidelines that must be achieved in terms of environmental legislation.
- Mitigation measures and environmental specifications which must be implemented for all phases of the project in order to minimise the extent of environmental impacts, to manage environmental impacts and where possible to improve the condition of the environment.
- Provide guidance through method statements that are required to be implemented to achieve the environmental specifications.
- Define corrective action that must be taken in the event of non-compliance with the specifications of the EMPr.
- Prevent long-term or permanent environmental degradation.

In addition to this, the Public Participation Process is continued. As for the Scoping Phase, opportunity is provided for I&APs to voice concerns and issues regarding the project. At this stage the project details may have changed in response to the preliminary findings of the Draft Scoping Report. I&APs and key stakeholders are also given the opportunity to review the Environmental Impact Report before it is submitted to the authorities.

10.1.5 Record of Decision of Environmental Authorisation and Appeals Process.

Upon thorough examination of the EIR, the competent authority will either issue an authorisation, which either authorises the project or rejects it, or require further details to clarify certain issues. Should authorisation be granted, it usually carries Conditions of Approval. The proponent is obliged to adhere to these conditions. Once the authorisation has been issued, it is publicised and the public are given 20 calendar days from the issuing of the authorisation to issue a notice of appeal to the authorities. An appeal must be submitted within 30 days after the lapsing of the 20 day notice of intention to appeal.

10.2 The Public Participation Process

10.2.1 Public Review Of The Draft Scoping Report (DSR)

All I&APs on the Register of I&APs will be notified in writing of the availability of the DSR for public review. The notification letter will provide details of the 30-day public comment period, the venues and websites where the report could be viewed, the contact details of the PPP consultant and how written comments on the DSR should be submitted, and details of the public meeting to present the DSR (if applicable).

10.2.2 Public Review Of The Draft Environmental Impact Report (DEIR)

All I&APs on the Register of I&APs will be notified in writing of the availability of the DEIR for public review. The notification letter will provide details of the 30-day public comment period, the venues and websites where the report can be viewed, the contact details of the PPP consultant and how written comments on the DEIR should be submitted, and details of the public meeting to present the DEIR (if applicable).

10.2.3 Notification Of Environmental Authorisation (EA)

Advertisements announcing the Environmental Authorisation will be placed in the same regional and local newspapers used to announce the project and the EIA. The adverts will be placed in the Daily Dispatch. The adverts will inform I&APs of the decision and where the decision can be accessed and will draw their attention to their right to appeal the decision and set out the appeal procedures.

10.3 Environmental Impact Report (EIR)

The Specialist Studies described below will inform the EIR. In addition, the EIR will gather any comments received from I&APs and determine whether it is necessary to increase the scope of work or amend the Terms of Reference for the specialists. The EIR will examine the 'No Go' alternative along with the proposed borrow pits, as required in the EIA regulations.

10.3.1 Structure of the EIA Report

In broad terms, the Environmental Impact Report (EIR) will have the following Table of Contents:

PART ONE: INTRODUCTION AND DESCRIPTION OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

- 1. Brief Description of The Proposed Project
- 2. Environmental Impact Assessment Process
- 3 Activities triggering the EIA process
- 4 The environmental study team
- 5 The environmental assessment process followed
- 6 Structure of the Report

PART TWO: THE PROPOSED BORROW PITS

- 1 Project Overview
- 2 Alternatives
- 3 Technical Description of Preferred Options

PART THREE: DESCRIPTION OF THE AFFECTED ENVIRONMENT

- 1. The Natural Environment
- 2. Socio-Economic Environment
- 3. The Policy, Legal And Administrative Environment

PART FOUR: ASSESSMENT OF THE ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE BORROW PITS

- 1. Impacts Associated with the Borrow Pits
- 2. Conclusion

PART FIVE: ENVIRONMENTAL MANAGEMENT PLAN AND OVERALL RECOMMENDATIONS AND CONCLUSIONS

10.4 Specialist Studies

10.4.1 Ecological Assessment (Mr Roy de Kock)

The Ecological Impact Assessment will include the following main tasks:

- Record the plant species that occur within the study area, based on field surveys;
- Identify, and locate where possible, any plant Species of Conservation Concern, namely Threatened, Near Threatened, rare (species with conservation status or which are) and endemic species (to the area);
- All Species of Conservation Concern (SCC's) will be discussed in detail;
- Compile a broad-scale vegetation or habitat map of the area. This vegetation map should indicate the extent that project activities would affect each vegetation or habitat type.
- Work in consultation with other specialists to ensure that the linkages between the various systems are understood;
- Provide a sensitivity map of the study areas in order for the proponent to better place the layout of the project's infrastructure;
- Once a sensitivity map has been created, the consultant must suggest ecological corridors around or adjacent to the suggested project area, especially through sensitive sites or vegetation;
- Ensure that the study deals with the issues raised during the scoping phase;
- Identify and assess the environmental significance of the identified botanical impacts using the methodology prescribed by EOH CES, as this methodology is compliant with international best practice in EIA; and
- To provide practical and realistic recommendations to mitigate the identified botanical impacts.

10.4.2 Heritage Assessment (Gavin Anderson)

As part of the Environmental Impact Assessment for the proposed LRWSS, it was necessary to undertake a Phase 1 archaeological and historical survey to fulfil SAHRAs requirements in accordance with the National Heritage Resources Act (25 of 1999). The National Heritage Resources Act requires that "...any development or other activity which will change the character of a site exceeding 5 000 m², or the rezoning or change of land use of a site exceeding 10 000 m², requires an archaeological impact assessment". This survey included the proposed borrow pit areas.

The primary objective heritage impact assessment was to determine whether there are any indications that the proposed site is of heritage significance. This assessment was a Phase 1 assessment, was largely desk-top although a site visit was required to afford the specialist an opportunity to look for significant artefacts on the surface of the site.

The terms of reference for the Phase 1 heritage study was:

- Provide a summary of the relevant legislation;
- Conduct a site inspection as required by national legislation;
- Determine the likelihood of archaeological remains of significance in the proposed site;
- Identify and map (where applicable) the location of any significant archaeological remains;
- Assess the sensitivity and significance of archaeological remains in the site;
- Assess the significance of direct and cumulative impacts of the proposed development and viable alternatives on archaeological and heritage resources;
- Identify mitigatory measures to protect and maintain any valuable archaeological sites and remains that may exist within the proposed site; and

• Prepare and submit any permit applications to the South African Heritage Resources Authority (SAHRA) and the Eastern Cape Provincial Heritage Resources Authority (ECPHRA).

The findings of the heritage assessment will be incorporated into this EIA.

10.4.3 Paleontological Assessment (Gideon Groenewald)

A paleontological assessment was completed for the LRWSS EIA and included the borrow pit areas. The findings of the paleontological assessment will be incorporated into this EIA.

Initial desktop studies are undertaken of the study area during which the potential fossiliferous rock units represented within the study area are determined from geological maps. Based on the outcome of the desktop study, a recommendation is made as to whether or not a Phase 1 is required.

A Phase 1 Paleontological Impact Assessments involves an assessment of the site to groundtruth the results of the desktop studies and to determine the actual extent of fossiliferous outcrops within the study area. All routes and areas where development is expected to take place are studied and exposed fossils observed within these areas are documented. A Phase 1 report includes recommendations for the mitigation of fossil resources during construction. A Phase 2 Paleontological Impact Assessment and subsequent site visits to rescue fossils threatened by the development process would need to be included in the next phase of the project.

10.5 Methodology for assessing the significance of impacts

To ensure a direct comparison between various specialist studies, a standard rating scale has been defined and will be used to assess and quantify the identified impacts. This is necessary since impacts have a number of parameters that need to be assessed. Five factors need to be considered when assessing the significance of impacts, namely:

Identified impacts will be assessed against the following criteria:

- Temporal scale
- Spatial scale
- Risk or likelihood
- Degree of confidence or certainty
- Severity or benefits
- Significance

The relationship of the issue to the temporal scale, spatial scale and the severity are combined to describe the overall importance rating, namely the **significance** of the assessed impact.

Table 10.1. Significa	ance Rating Table
Temporal Scale	
(The duration of the im	
Short term	Less than 5 years (many construction phase impacts are of a short duration).
Medium term	Between 5 and 20 years.
Long term	Between 20 and 40 years (from a human perspective almost permanent).
Permanent	Over 40 years or resulting in a permanent and lasting change that will always be there.
Spatial Scale	impact will have an affect)
Individual	Impacts affect an individual.
Localised	Impacts affect a small area of a few hectares in extent. Often only a portion of the project area.
Project Level	Impacts affect the entire project area.
Surrounding Areas	Impacts that affect the area surrounding the development
Municipal	Impacts affect either the Local Municipality, or any towns within them.
Regional	Impacts affect the wider district municipality or the province as a whole.
National	Impacts affect the entire country.
International/Global	Impacts affect other countries or have a global influence.
Will definitely occur	Impacts will definitely occur.
Degree of Confidence	
	hich one has predicted the significance of an impact)
Definite	More than 90% sure of a particular fact. Should have substantial supportive data.
Probable	Over 70% sure of a particular fact, or of the likelihood of that impact occurring.
Possible	Only over 40% sure of a particular fact, or of the likelihood of an impact occurring.
Unsure	Less than 40% sure of a particular fact, or of the likelihood of an impact occurring.

Table 10.2. Impact Severity Rating

Impact severity

(The severity of negative impacts or how beneficial positive impacts would be on a particular affected system or affected party)

of anected party)	
Very severe	Very beneficial
An irreversible and permanent change to the affected system(s) or party(ies) which cannot be mitigated. For example the permanent loss of land.	A permanent and very substantial benefit to the affected system(s) or party(ies), with no real alternative to achieving this benefit. For example
Severe	the vast improvement of sewage effluent quality. Beneficial
Long term impacts on the affected system(s) or party(ies) that could be mitigated. However, this mitigation would be difficult, expensive or time consuming, or some combination of these. For example, the clearing of forest vegetation. Moderately severe Medium to long term impacts on the affected system(s) or party(ies), which could be mitigated. For example constructing the sewage treatment facility where there was vegetation with a low conservation value.	A long term impact and substantial benefit to the affected system(s) or party(ies). Alternative ways of achieving this benefit would be difficult, expensive or time consuming, or some combination of these. For example an increase in the local economy. Moderately beneficial A medium to long term impact of real benefit to the affected system(s) or party(ies). Other ways of optimising the beneficial effects are equally difficult, expensive and time consuming (or some combination of these), as achieving them in this way. For example a 'slight' improvement in sewage effluent quality.
Slight	Slightly beneficial
Medium or short term impacts on the affected system(s) or party(ies). Mitigation is very easy, cheap, less time consuming or not necessary. For example a temporary fluctuation in the water table due to water abstraction.	A short to medium term impact and negligible benefit to the affected system(s) or party(ies). Other ways of optimising the beneficial effects are easier, cheaper and quicker, or some combination of these.
No effect	Don't know/Can't know
The system(s) or party(ies) is not affected by the proposed development.	In certain cases it may not be possible to determine the severity of an impact.

Table 10.3. Overall Significance Rating

Table 10.3. Overall Significance Rating		
Overall Significance		
(The combination of all the above criteria as an ove		
VERY HIGH NEGATIVE	VERY BENEFICIAL	
These impacts would be considered by society as constituting a major and usually permanent change to the (natural and/or social) environment, and usually result in severe or very severe effects, or beneficial or very beneficial effects.		
Example: The loss of a species would be viewed by inf Example: The establishment of a large amount of infr few services, would be regarded by the affected significance.	rastructure in a rural area, which previously had very	
HIGH NEGATIVE	BENEFICIAL	
These impacts will usually result in long term effects or as HIGH will need to be considered by society as consist the (natural and/or social) environment. Society would p Example: The loss of a diverse vegetation type, significance rating of HIGH over the long term, as the a Example: The change to soil conditions will impact the (such as people growing crops in the soil) would be HIGH	stituting an important and usually long term change to probably view these impacts in a serious light. which is fairly common elsewhere, would have a rea could be rehabilitated. he natural system, and the impact on affected parties	
MODERATE NEGATIVE	SOME BENEFITS	
Impacts rated as MODERATE will need to be consider usually medium term change to the (natural and/or s substantial. Example: The loss of a sparse, open vegetation type significant.	social) environment. These impacts are real but not	
LOW NEGATIVE	FEW BENEFITS	
These impacts will usually result in medium to short to Impacts rated as LOW will need to be considered by to unimportant and usually short term change to the (natu substantial and are likely to have little real effect. Example: The temporary changes in the water table of fluctuating water levels. Example: The increased earning potential of people	erm effects on the social and/or natural environment. the public and/or the specialist as constituting a fairly ral and/or social) environment. These impacts are not of a wetland habitat, as these systems are adapted to	
result in benefits of LOW significance to people who live NO SIGNIFICANCE	e some distance away.	
There are no primary or secondary effects at all that are	important to scientists or the public	
Example: A change to the geology of a particular forr perspective, but is of NO significance in the overall cont DON'T KNOW	mation may be regarded as severe from a geological	
In certain cases it may not be possible to determine the or secondary impacts on the social or natural environme Example: The effect of a particular development on performance.	ent given the available information.	
All fossible alternatives and the "ne as ention" w	ill be equally accessed in order to evaluate the	

All feasible alternatives and the "no-go option" will be equally assessed in order to evaluate the significance of the "as predicted" impacts (prior to mitigation) and the "residual" impacts (that remain after mitigation measures are taken into account). Reason for the judgement will be provided when necessary.

11. CONCLUSIONS AND RECOMMENDATIONS

11.1 Activity and Possible Impacts

The proposed activity involves mining two borrow pits for weathered dolerite material to be used for construction of the dam wall for the proposed Zalu Dam (as part of the LRWSS). The borrow pits are located near Lusikisiki in the ORTDM, Eastern Cape.

The proposed borrow pits are located on rural grazing/agricultural land, however, the activity raises issues pertaining to:

- Visual intrusion of the landscape.
- Dust impacts on surrounding land inhabitants.
- Noise impacts on surrounding land inhabitants.
- Ecological sensitivity.
- Heritage sites.
- Paleontological sites.
- Socio-economic impacts and benefits.

11.2 Fatal Flaws

At this stage, no fatal flaws have been identified and there is no reason why the proposed activity should not proceed to the EIA phase for further assessment.

11.3 The EIA Phase

The following activities will form part of the EIA phase:

- Public participation: public review of documentation, engagement with stakeholders/I&APs;
- Specialist studies as described in the Plan of Study;
- Evaluation of impacts prior to mitigation;
- Compilation of practicable and effective mitigation measures;
- Provision of an opinion as to whether or not the activity should be authorised;
- Compilation of an environmental impact statement;
- Compilation of a draft Environmental Management Programme (EMPr).

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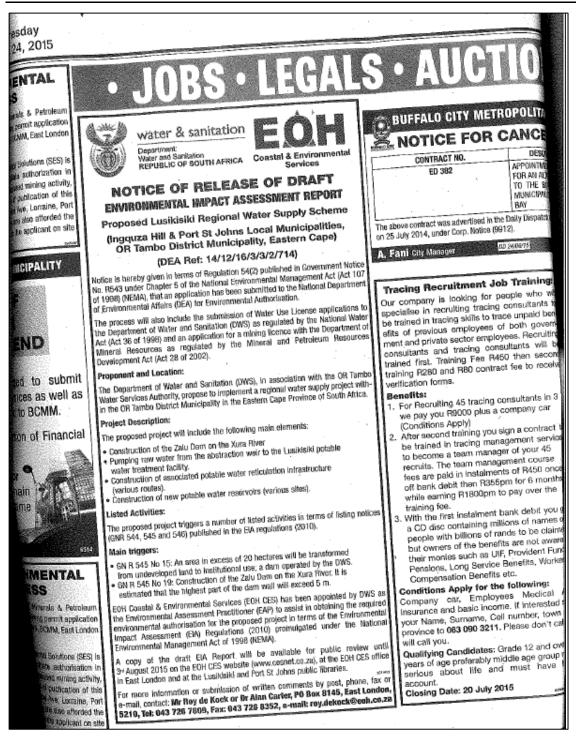
13. APPENDICES

13.1 Appendix A: Public participation documents

13.1.1 Newspaper advert



Published on the 10th July 2014 in the Daily Dispatch.



Published on the 24th June 2014 in the Daily Dispatch.

13.1.2 Background Information Document:



Proposed by: Department of Water and Sanitation.

Return address for comments: Environmental Consultant: EOH Coastal & Environmental Services Nande Suka 25 Tecoma Street, Berea, 5214 P.O Box 8145 Nahoon, 5210 Tel: (043) 726 7809 Fax: (043) 726 8352 Email: nande.suka@eoh.co.za





AIM OF THIS DOCUMENT

The purpose of this document is to ensure that people that are interested in or affected by the proposed project are provided with information about the proposal, the process being followed and provided with an opportunity to be involved in the EIA process.

Registering as an Interested and/or Affected Party (I&AP) allows individuals or groups the opportunity to contribute ideas, issues, and concerns relating to the project. I&APs also have an opportunity to review all of the reports and submit their comments on those reports. All of the comments that are received will be included in the reports that are submitted to the Competent Authority.

THE PROPONENT

The proponent for this project is the national Department of Water and Sanitation (DWS). The DWS is the custodian of South Africa's water resources. It is primarily responsible for the formulation and implementation of policy governing this sector. It also has an overriding responsibility for water services provided by local government.

PROJECT DESCRIPTION

DWS in association with the OR Tambo Water Services Authority, propose to implement a regional water supply project within the OR Tambo District Municipality in the Eastern Cape. A component of this scheme is the construction of the Zalu Dam on the Xura River. Two downstream weathered dolerite borrow pits are required for construction of the dam wall (Figure 1). The borrow pits are approximately 10 km north-west of Lusikisiki in the Ingquza Hill Local Municipality.

THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

EOH Coastal & Environmental Services (EOH CES) was established in 1990 as a specialist environmental consulting company.

EOH CES has considerable experience in terrestrial, marine and freshwater ecology, the Social Impact Assessment (SIA) process, State of Environment Reporting (SOER), Integrated Waste Management Plans (IWMP), Environmental Management Plans (EMPs), Spatial Development Frameworks (SDF), public participation, as well as the management and co-ordination of all aspects of the Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) processes. EOH CES has been active in all of the above fields, and in so doing have made a positive contribution towards environmental management and sustainable development in the Eastern Cape, South Africa and many other African countries. We believe that a balance between development and environmental protection can be achieved by skilful, considerate and careful planning.

THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

According to the Environmental Impact Assessment (EIA) regulations (2014), promulgated under the National Environmental Management Act (No. 107 of 1998), listed activities need to be assessed. In this case the following project activities require that a Full Scoping and EIA be carried out:

Table 1: Listed Activities which require Environmental Authorisation

ACTIVITY NUMBER	LISTED ACTIVITY
GNR 983 No. 22	The decommissioning of any activity requiring (i) a closure certificate in terms of Section 43 of the Mineral and Petroleum

	Resources Development Act (Act No. 28 of 2002; MPRDA).
GNR 984 No. 15	The clearance of an area of 20 hectares or more of indigenous
	vegetation.
GNR 984 No. 17	Any activity including the operation of that activity which requires a mining right as contemplated in Section 22 of the MPRDA, including activities for which an exemption has been issued in terms of Section 106 of the MPRDA.

APPROACH TO THIS SCOPING AND EIA REPORT

The EIA for the proposed project is presently in the SCOPING phase. This phase serves primarily to inform the public and relevant authorities (Department of Mineral Resources) about the proposed project and to determine any impacts. These impacts will then be extensively addressed by specialists in the field during the EIA phase. Only after the full EIA report has been submitted will a decision be made by the relevant authorities.

SCOPING PROCESS

Advertisement & Registration of I&APs We are here!	
Distribution of BID Document to I&APs for comment	
Compilation of I&AP comments	
↓ Review of Draft Scoping Report by I&APs	
↓ Public Meeting	

Submission of Scoping Report to DMR

Acceptance of Scoping Report by DMR & Instruction to proceed to EIA Phase

THE ENVIRONMENTAL IMPACT ASSESSMENT PHASE

This phase is more complex and more detailed than the Scoping phase, because it focuses on undertaking specialist studies that may be identified during the Scoping phase. These studies provide specialist input into the EIA process on assessing impacts based on scientific information. I&APs will be consulted again during this phase, and will be given an opportunity to comment on the Draft Environmental Impact Report (EIR) that will contain the specialist reports. During this phase an Environmental Management Programme must also be prepared for the project.

The final EIR is submitted to the Department of Mineral Resources (DMR) who, after considering the report, will make a decision on whether or not to authorise the development. The authorisation of a development carries a number of legally binding conditions, which will be contained in the Environmental Authorisation document. This document will be circulated to all registered I&APs within two weeks of receipt from DMR.

POTENTIAL IMPACTS AND BENEFITS

EOH will assess the impacts of the proposed activity on the environment. Impacts will be assessed for the various alternatives; including the preferred alternative and the "No-Go" alternative. Impacts will be assessed for the planning and design, construction, operation and decommissioning phase.

HOW CAN YOU BE INVOLVED?

A Public Participation Process (PPP) is being conducted as part of the EIA. The aim of the PPP is to allow everyone who is interested in, or likely to be affected by the proposed development to provide input into the process.

The PPP will include:

- Advertisements in the Daily Dispatch
- Notice boards on site
- Circulation of the BID (this document) to all identified I&APs and stakeholders
- Comments period
- Review of the reports by all registered I&APs and stakeholders
- A public meeting (If required)

If you consider yourself an interested and/or affected person/party, it is important that you become and remain involved in the PPP. In order to do so please follow the steps below in order to ensure that you are continually informed of the project developments and will ensure your opportunity to raise issues and concerns pertaining to the project.

STEP 1: Please register by responding to our notification and invitation, with your name and contact details (details provided on cover page and below). As a registered I&AP you will be informed of all meetings, report reviews and project developments throughout the EIA process.

STEP 2: Attend any meetings that will be held during EIA process. As a registered I&AP, you will be invited to these meetings.

EOH is required to engage with all private and public parties that may be interested and/or affected by the proposed borrow pits, in order to distribute information for review and comment in a transparent manner.

In the same light, it is important for I&APs to note the following:

- In order for EOH to continue engaging with you, please ENSURE that you register on our database by contacting the person below.
- As the EIA process is regulated by specific review and comment timeframes, it is your responsibility to submit your comments within these timeframes.

Please send your enquiries and/or comments to:

Nande Suka 25 Tecoma Street, Berea, EastLondon, 5214 P.O Box 8145 Nahoon, EastLondon, 5210 Tel: (043) 726 7809/8313 Fax: (043) 726 8352 Email: nande.suka@eoh.co.za

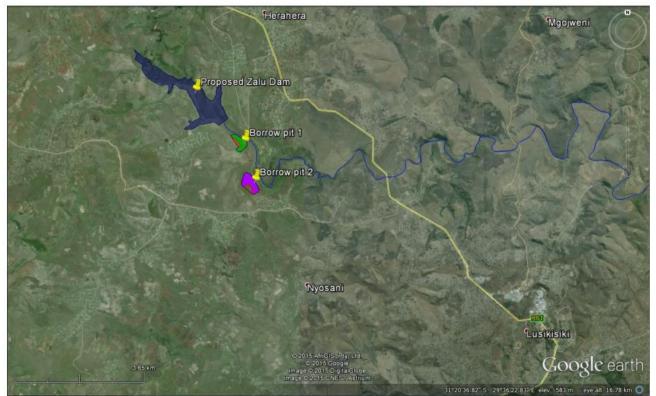


Figure 1. Locality map for the proposed borrow pits.

<u>I hereby</u>	wish to register as an Interested and Affected Party (I&AP) for the Proposed Weathered Dolerite Borrow Pits <u>EIA process</u>
Name:	
Postal address	S:
Email:	
	ments, issues or concerns are:
	receive all future correspondence in: (please circle) XHOSA
	als, stakeholders, organisations or entities that should be registered are:
Organisation:	
Postal address	S:
Email:	
	Fax #:
	Please return details to: Nande Suka: P.O. Box 8145, Nahoon, East London, 5210
	Telephone: (043) 726 7809 Fax: (043) 726 8352 Email: nande.suka@eoh.co.za

13.1.3 Notice boards



Notice board near Palmerton High School.



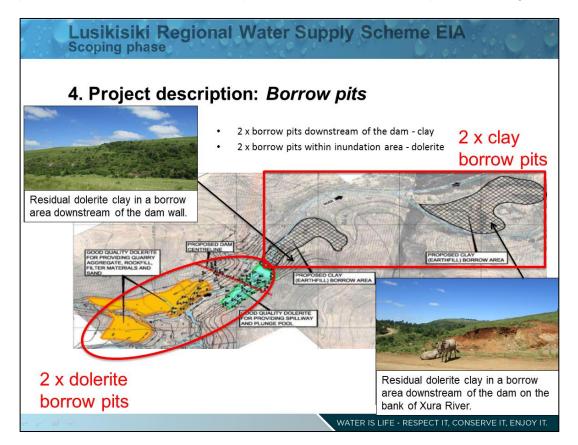
Notice board near Palmerton Mission.



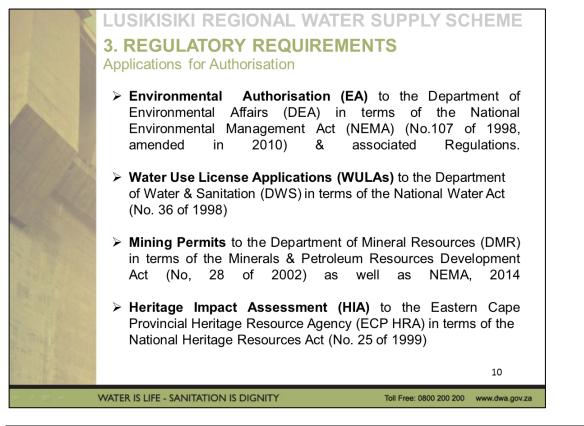
New notice board that was put up near the borrow pit sites (GPS coordinates: 31°19'36.93"S, 29°29'3.16"E).

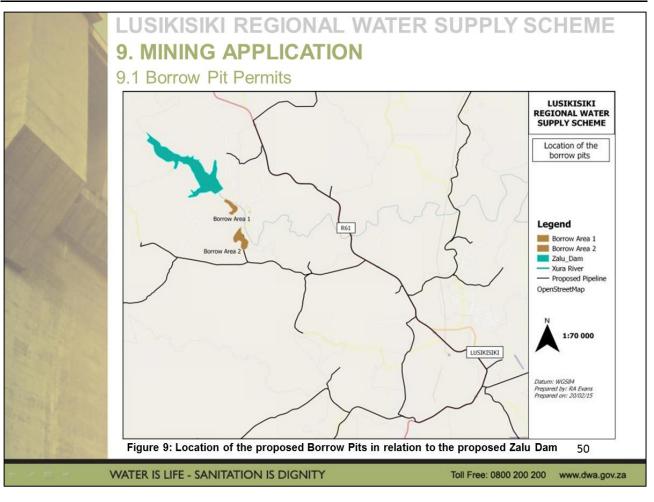
13.1.4 Presentation given during the Scoping and EIR phase of the LRWSS

Below is an extract from the presentation that was given during public meetings in the Scoping phase of the LRWSS. The borrow pits were discussed in these public meetings.



Below is an extract from the presentation that was given during the public meetings in the EIR phase of the LRWSS. The borrow pits were also discussed in these meetings.





13.1.5 Public meetings held for the Scoping and EIR phase of the LRWSS

Attendance registers for public meetings during the Scoping Phase of the LRWSS:

DWA Lusikisiki Regional Water Supply Scheme – Public & Stakeholder Engagement Attendance Register

7th – 11th July 2014

Name	Organisation/Community	Email	Tel no.
Velision Peren	Ward 23 W. Commuter	NIA	0834475064
NOTHONBA JIJIMBA	WARD 17. Ward (Ormma		0735590100
MAMpuNge M. BIKO	avord AV/Commette (18)		0 83 4316762
Michael Sigweta		-	0834408277
MEUNDISO JAZI	W/Committee 18		0834850115
ALICIA Mbhalo	W/Committee 21		0834432703
P. TShicilA	W/committ 21		0834433214
T.A Muse	W Committe 21		0834447774

Name	Organisation/Community	Email	Tel no.
N. Mtenjure	W/ Commette	N/A	0834452229
N. Linganiso	W/ comette	NIA	0834415-969
XW. Jopicase	w/6-16	M/A	083 448 3303
M neknerente			078514496
	WARDIU	-	
M. MALI	U/ conette	NIA	08344227457
N.C. CAINE	W/Committee 16	NA	0834199499
L. MGWAZA	W/committee 13	NA	0834443153
P. MBRIENI	W/committe	WIARD 18	0731884465
N. MKUMBUZI	W/Committee	WARS 14	0733476531
y Kholisile	W/connitlee	WARS 18	0834414355

Scoping Report – November 2015

DWA Lusikisiki Regional Water Supply Scheme – Public & Stakeholder Engagement Attendance Register 7 th - 11 th July 2014 (8 th July 2014 - Ingguza Hill LM Wast coundle)					
	7" – 11" • Organisation/Community	Email,	Tel no.	Ĵ	
Name	Organisation/Community	NA			
Ul Mplanywa	Ward 19 Comet	0834444 289	683444428er MARK		
		NA			
N. Bhalo	Wand 16 Committee	08341985'50	- 0834 1985' SON Bhalo		
N. Nkuakhwa	Wardd4 Commuter	N/A	0603805946.		
m-Sithilanga	word 9-4 commit		0834480351 mm		
N. Zikizela	Nard Zij commilitee		083 446 9036 X		
Z. Tsuémésé	WARD 17 committee		0834483823 A		
S. M. Matwasa	ward 17 committee		0786701128 Sulla		
N.C. MRomse	WARD 17 committee	NA	083 444 56 00		

Name	Organisation/Community	Email	Tel no.
Z. BASHE	Ward Committee	Mu	083 4198252
hy Tana	11/ Committee		08344083567 19-7000
M. HONYOZA	W/ Commitee		08311110976 Henry
N. F. Alko	W/Committee 18	N/A	0835914708 1800
N NYGAIYISS	Ward Committee 17	NIA	0834471990 MMgmg-65
B. Mitiza	W/ committee 21	NIA	0834440933 B.L.4
N.F. Dwakeys	Ward Committee 2	N/A	07658%, 222 APbursho
N, Msikwa	Ward Committee 21	NA	0834450593
H. Daniso	Ward Conceller	NA	083 668 5540
MITEMYAME	Ward Connaille	MA	0733743422

Name	Organisation/Community	Email	Tel no.
B. NGOTANA	17. S. XMATWASA		0833409583
M.D MULTUR	13. M.D. MULLETWA	-	0834452496
SE MALULUANA	14 W/Chhe		082,F433,F87-
M. MABEHA	IN W/ CO MAITTEE		0834416504
An Vinneage	Cal Compes		0732204592
T. Sonquinzy	14-18 Contt		0736655772
M MForbozz	13 Ward Committee	22	0.834441194
F Mbutshame	13 ward Committee	ę	0834403459
LUILYO-SUMANI	14-W/COMM		092093471
N Mando	14 YComm		0834460225
S. MNGE	19 C/man	_	0735557913
A. Gwiltka	14 word member	-	

	I hereby wish to register as an Interested and Affected Party (I&AP) for the
	Lusikisiki Regional Water Supply Scheme EIA process
Name: Organi Postal Email:	H HAMINIOH MGWICI
Phone	#: 083 4553286 Fax#:
My initi <u>(No</u> <u>Cop</u> be c	ial comments, issues or concerns are: wed (ouncillor of MAnizwent was given Bips # wes of the presentation to distribute around the village ause we could not host a public meeting due to community strike.
	Affuquil;
Other	individuals, stakeholders, organisations or entities that should be registered are:
Name:	
Organ	ization:
Postal	address:
Email:	
Phone	#: Fax #:
	Please return details to: Nande Suka: P.O. Box 8145. Nahoon, 5210

Ndingwenela ukubhalisa njengomntu onomdla nochaphazelekayo kuphuhlis Lusikisiki Regional Water Supply Scheme (LRWSS)	<u>io i-</u>
gama: NOMALIZO MANCIYA	
Imbutho wakho: MTHIMBE VILLAGE (LEABER)	
dilesi yeposi: P.O. BOX 1099, LUSIKISIKI 4820	
meyili:	
fowuni #: <u>0835328191</u> Ifeksi #:	
zinto onqwenela ukuziveza okanye izimvo nengxaki zakho ngolu phuhliso :	
Mithinde Village Meetings are hosted on Tuesdugs, therefore the	
EIA term cauld not be met on a friday. I tavener, the village	
chieftainess was visited. Bios and presentation copies wave	
Provided, and the committeed to distributing these to the rest	
of the village, and also speed the wave during the ullag	
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N V Mancinga	
Abanye abantu nemibutho ocinga kufuneka ibhaliswe:	
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Idilesi yeposi:	
Idilesi ye imeyili:	
Ifowuni #: Ifeksi #:	
Thumela ku: Nande Suka: P.O. Box 8145, Nahoon, 5210	

Scoping Report – November 2015

DWA Lusikisiki Regional Water Supply Scheme – Public & Stakeholder Engagement Attendance Register				
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N. TENYANE	Ward 17		0781367989	
5. Domo	Ward 14		07960391.03	
M Siko	word 17	N·Siko@Gmail.com	073 3906243	

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Name	Organisation/Community	Email	Tel no.
N Magoma	Wicher 17		019433596
m. no ware	ward 13		0757548704
D.L. mbola	wood 13		0736605004
M. Diomo	wood 17		0733211 638
S MATWASA	word 13		0787W1W790
M MAFANJA	ward 13		0834248945
S. Dhomo	ward 17		0836224396
S. MBENGANA	Ward 13		0739005574
	Live 17.		0837706499
m mithembo	word &		0785015948

Name	Organisation/Community	Email	Tel no.
B. NGOTANA	WARS 17		0833409583
L.H. NGOTANA	WARD 17	-	0787738858
SMBNENA	WALD 17		0718160502
K.A. DUNTSULA	MARD 17		0733485430
MMBEINA	WARDIT		0726023883
MISENABULUNGISA	Word 17		. —
M. Mtsemge	Word 13		0780786897

Scoping Report – November 2015

DWA Lusikisiki Regional Water Supply Scheme – Public & Stakeholder Engagement

Attendance Register 7th - 11th July 2014 (9th/07/44 - PSJ LM Stakeholder & cllrs engagements)			
Name	Organisation/Community	, Email	Tel no.
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	PSJLM	forokm@gmail.com	
K.M. Fono	Ward D9		Kmmoto.
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R.M. WERL	Ward Councillor (Ward 13)	rmzweni@g-mail.com	ford (R.) 08284022
MN SOPHOTEG	CILR UNARD 11		0719980097 Miles
N. MBOISHWA	CILR WARD 20	ntsebz@gmail.com	NUT 0730353219

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Name	Organisation/Community	Email	Tel no.
ISHOTHO J	Wardel 15	TShorto webneil. 20	0722562463
Diri N	Ward 11 Sec	ngoliti @ gmail. com	
MTIKI Z	WARD CLLR 12	ZETMTIK agmal (0	n 0827990135
Soustewgaye S,	Ward 17	ZETMTIK@qmail(0 SiLASSetsino OSMGi), (om	999e 073345674/
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Attendance registers for public meetings held during the EIR Phase of the LRWSS:



· MUNICIPALITY ·

OFFICE OF THE MUNICIPAL MANAGER PORT ST JOHNS MUNICIPALITY EASTERN CAPE PROVINCE OF RSA

PC Box 2. Port St Johns . 5120 - Erf 257 . Main Street . Port St Johns . 5120

Attendance Register

Date: 23 February 2015

Venue: Speaker's Office

Event

Stakeholder Meeting (Lusikisiki Regional Supply Scheme by CES (Coastal & Environmental Services))

Time: 13:00

NAME & SURNAME	DESIGNATION/ ORGANIZATION	CONTACT NUMBERS	EMAIL ADDRESS	SIGNATURE
KOSMAN LUL	AND CES	046 672 236 V	Conbostian & resport.	10 2 KAB
ph Jospeld &	and DIUS.	012 336 7284	ionjaarsuddis Qalue.c	pize X Casie
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VILLAGE	Mrhotshozweni	М
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	М
DATE	25 / 02 /2015	

NAME	VILLAGE	Contact details	Signature
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S. NGWANE	Ndimbanery	0715325/161	Stager
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VILLAGE	Mrhatshazweni	М
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	М
DATE	25 / 02 /2015	

NAVE	VILLAGE	Contact details	Signeture
NGAKA	GOWARN	0834462003	ĪM
M MFOLOZ	LUMAYEN	0605632039	MACINEDEZ
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4. MBON-30	Miluo 1840 Zwen;		Æ
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VILLAGE	Whatstoweri	
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	Mr Bosman
DATE	25 / 02 /20/5	

ATTENDANCE REGISTER Focus group duration:

NAME	VILLASE	Contact details	Signature
malake madnoka	ntlaniana	0730006428	memodyolia
newane T	Meholshozwan		N
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MI NTLANG	NTIANJAN,	a 08550	2
Nokhaya Mindela	ManiAna	0835079510	OKSSOTHE/OK
NI NYOYI	MFINCA	07823259N	
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busiyine Hozk	Nothibaren.	0839792148	B
Vingeng Hoza	Dolmbaren	0934264264	4400

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VILLAGE	Mitotshooveni	
FACILITATORS	Mr Lungisa Bosman & No Nande Suka	Mr Bosman
DATE	25 / 02 /2015	2.1

ATTENDANCE REGISTER Focus group duration:

NAVE	VILLAGE	Contact details	Sgnature
Aciwe posed	NOWORHEN	0780024096	1
Nivage Amalde	Mambarch	0734275/58	all -
MKons: Sisoko	Mdimboreni	0603290557	GA
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Mianga Yugo	MROTOM	083 884 66499	
Matorisa Maniela	Neuroping	0786701128	Sound
Gennue Mithithum	MROSH	073 For \$540	Carrie
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LL MAFARINA	1 N	0836743893	G

Scoping Report – November 2015

DWA - LUSIKISIKI REGIONAL WATER SUPPLY SCHEME PUBLIC MEETING

TVILLAGE	Whotshapweri	
FACILITATORS	the Lungisa Bosman & Mo Nande Suka	
DATE	25 / 02 /22/5	

ATTENDANCE REGISTER:

	WLAGE	Contact details	Sprature
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B. MARANJA	NIRHO ISHORNEN'	11 11	Naghiery
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J.Mahamashuala	Noiwgangwi	073848(781	united a
11. Rosetta Hypente	Mirotshozweni	0732394274	
HIMOSELLA MIL	Winbareni	0785403/41	- And
M. Bitshuble	NB: nel an esi	8730403269	100

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VILLAGE	Mrhotshozweni		
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	Mr Bosman	
DATE	25 / 02 /2015		1

ATTENDANCE REGISTER Focus group duration:

NAME	VILLAGE	Contact details	, Synature
langesaffre		046-6227364	VAD
Suclassied	-	012 336 7284	the such.
T.P. Cradlwana	INSOUZA L.M	253 450 2465	Car.
Silwakasi Kubuluza	NGOUZHILM	071 8694613	\$3.D
PAT STISHERD	WARA 13	87385828 3,	Kigh)
N Fihloni	MUNICIPAL MANAGER	083 450 2470	10 totarssed
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VILLAGE	Mrhotshozweni	and the second second	M
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	1	M
DATE	25 / 02 /2015	1 1 20	+
ATTENDANCE REGISTER:		I & James	

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t. Maleva	NDIMBATEN.	073 11 32 773	de the
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VILLAGE -	Himmi Nthinde	м
CONTRACTOR OF A CONTRACTOR OF	Mr Lungisa Bosman & Ms Nande Suka	м
DATE	261 02 12015	

NAME	VILLAGE	Contact details	Signature
1. Slakavu B.	Mondo	0185432672	OM
8- MAL likihla M.	Minde	0834971703	120
3 MAVOVANA A	Mtinde.	07/5410187	pp-fr
C. Komboto . M . V.	Momole	0797065696	M.V.
C-MPhali . N.M.	SURRIR	0734805993.	Stand S
i Malina S.	SURRIA	073541866	fr.
7.Gango, Z.	Mimole	0734144307	86
S.MANGYA B	Mtinde	No	М.В.
9. MANGARA 19.	Whind?	Ma	M.G
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11. PHOTE, C	Mtionde	NB	P. C.
12. MBedeni, Mahlikhl		No	N.W.
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Balindin Ma	MEINOR	No	M.R.

VILLAGE	Minima Millinde	
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	Mr Bosman
DATE	25/ 02 /2015	

ATTENDANCE REGISTER Focus group duration:

NAME	VILLAGE	Contact details	Signature
7. Gulwows	maindi	083247950	Sto-
1) HOLICH		0729286786	Q
V. Mayera	Mthinde	1835479380	NA
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VILLAGE	Minimusi Mihimde.	
FACILITATORS	Nr Lungisa Bosman & Ms Nande Suka	Mr Bosman
DATE	260/ 02/2015	

ATTENDANCE REGISTER Focus group duration:

NAME	VILLAGE	Contact details	Signature
Vu viswa Gx The	Mindo	07888448521	1/3
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Madotyeni B.	Meinde	078 665 6765	

VILLAGE	Minde	M
FACILITATORS	Nr Lungisa Bosman & Ms Nande Suka	M
DATE	26/ 02 /2015	

NAME	VELAGE	Contact details	Signature
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VILLAGE	Minde	• M
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	м
DATE	250/ 02/2015	

NAME	VILLAGE	Contact details	Signature
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VILLAGE	Minde.	
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	Mr Bosman
DATE	26/ 02 / 2015	

ATTENDANCE REGISTER Focus group duration:

NAME .	VILLAGE	Contact details	Signature
Makhausa	Munde	078407982	5 MNgta
Iloia Noncedo	MAMOR	0792828534	Planto
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VILLAGE	Mittimde	
FACILITATOPS	Mr Lungisa Bosman & Ms Nande Sulta	
DATE	26 / 02 /2015	

NAME	VILLAGE	Contact details	Signature
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Khalipha Masele, Nomber cinci Mavele,	Minde	0839646096	KATO
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Salinani Mangunangi	la l		

VILLAGE	Mittimde	
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	Mr Bosman
DATE	25 / 02 /2015	

ATTENDANCE REGISTER Focus group duration:

NAME	VILLAGE	Contact details	Signature
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BUNZI M.	Mfinda	0836842201	*
Mulani V.	Mando	0783291552	le
F. Mazikuzitiku . (j.	Mindo	0120194951	25
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Bui-pM	MEINde	0777502813	appling
MATHE S	Mrimde.	0187154432	SIMPHI WE
SKAKATA S	Mtinde	072 29 11 02	B
s Nikoma virtal S.	Mind	083 46 11500	K
e Matita II	Mando	06030019493	The
e MAJIJA B.C	NTINSE	0711922577	A crise
Manaya N	NHimele	07809095	AMD"
6 Sulward P.	Mtinde	0730688662	Atl
ARNIS: A	Autorde	6738446262	C RAN

NLLAGE	Mbinde	
FACILITATIORS	Mr Lungisa Bosman & Ms Nande Suka	
DATE	26 / 02 /2015	

ATTENDANCE REGISTER:

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HANKTOMSO KHUTHALA	Numezwishi	073 780 328	40
C.V Nongwiene	Mittim At	-	(.V. Nongwano
		-	255 (V
	Micol	-	
M Nana	Mind	0710/07921	po
MFuku 2d	Nkululeko	0604083161	471
S. MARANYA		0760893994	12
W. Nawane.	Manfellquiene	0739596131	Contra -
HANDI MARANDADOZ	N	0756989679	ton
PUTUMA LUTHANDO	BUMEZWENI	073 3014 361	B
NEW ANE SivayiLE	bum EIWE NI	0836962664	K
Perilme Univer 24	DUMEZUZNI	078045 9326	195
Y GwiTA	MTIMDE	071073805	Ref
1 Makanya	1	01190035	- 60
M. MASSIC MALIZO	ARBER ASWI DI	0733160345	102
huruto Zapre	MEINOBE	0533375169	(A)
LUCKY MAKALAKA	Survive	0717493021	1500

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VILLAGE	Mbinde	
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	Mr Bosman
DATE	28 / 02 /2015	

ATTENDANCE REGISTER Focus group duration:

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Phathe ka Mancija	Minde	0761574552	
NomEuropo	mtimde	0791012177	
Kholeka	-	0787751549	
ntombi Kadise	-	0735112173	
Nonvuto myckette	-	073 9860780	
MARAKA	-	0793518618	
manyath	-	0792030063	
VUYELWA	-	073 72 16304	
Sciani	~	072 97 85 047	
Nochembrie	/	0734737388	
VUYISWA	*		
Mambungising	`		
No	~		
noolon.	/	0738073123	
bokwar	,	0785108024	

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VILLAGE	Mthimde	
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	
DATE	26 / 02 /2015	

ATTENDANCE REGISTER:

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Iumani Niombomhlophe		0719422419	
M JIJMBA	Í		
NowEZILE MAISEDA		0729742912	
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Nonihunzi Mathubeni Nongenile, Cabeni			
Nozamile Labharani		*	
Nomínunz: Matrubeni			
Vergerile			-
Nozamile Mayeri			
Nonviso Mabera			
Mairalela Sidinana		0783972922	
Nophungile Majula Mantiani Mabena	D	0784897674	

VILLAGE	Mhimde
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka
DATE	26 / 02 /2015

NAME	VILLAGE	Contact details	Signature -
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Giloto Phumiani	MTimde	0785842948	G.P
Ludiya Lunga	MTimde	0838740476	bile
Mancourso Monose	Mimde	08348 33231	Fait
Nocha MA THAMSON			aff
MAGICANCICENI UNBISA	MTIMDE	0787284900	5 In
NGOMILLE BORGINLE		0727455675	tand -
SAMPI KHANYILE	MIIMDE	0781118550	
Makhurenkue Zandisik		0723078732	no
Tothe mongie		0719868911	Q
Sikhangele Jola	Maufengurini		S. Jola
EK IP	MABMER		4
SAMEY MAWANDE	milmde	278 111 5850	68
MZOXOLO MZO	MM	074016192	
Sitawy-Wella	MTIMOE	078538737/	P
BAUNY SE GUNNZA	MTIMOL	0132470957	S. M. GUIVZED
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VILLAGE	Mthinde	
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	Mr Bosman
DATE	26 / 02 /2015	

ATTENDANCE REGISTER Focus group duration:

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NINOPA	Asanda	0738487344	49
GIZWE ANTSMAK, BANA	A CONTRACT OF A CONTRACT OF	0789868966	Ste
MAKADE FIKILE	11 11		H
SULWANI AZOLA	MTIMOG	08340793144.	K
Maelkak Sitiso	SUNRISE	073606882	19
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Shophi 10 Theninis	7 5	0	10
5 Dingi	Mimbe	07395 73137	All and a second
STEMBISO	MTIMDE	073 4568053	
S. Manyukana	MTIMDE	01/1926398.	書や
KOLAMÍ	SiDINAMA	0782733503	P
Marchin	JACH, 3th 6	277117 44481	
Swotha	Mtimbe	0781890321	6
SiPHELELE	ALOKAVU	680733735492	×
BONGA	Mdokwana	0810264299	

VILLAGE	Mthimde	
FACILITATORS	Mr Lungisa Bosman & Ms Nande Suka	Mr Bosman
DATE	26 / 02 /2015	· · · · ·

ATTENDANCE REGISTER Focus group duration:

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Now 6		S, Khulume	0730799711	
MACAL		FadaNe	0784310123	
TOHK	ilo, Ngewu	Hacory Mitimde	0791866270	
Mathr	S1	NEIMOR	0734627276	
	Notwanda	Minde	0919983476	
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	MBENGULA			
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Nocuza		Mtimde	071 077 5451	
Matita	N	Mtimde	02 063 5288	
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13.1.6 Interested and affected parties database

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Mr Ntshobo (Ward 13)	Ingquza Hill LM	073 858 2831		
Mr Malulwana (Ward 14)	Ingquza Hill LM	082 843 3887		
Mr Thambodala (Ward 15)	Ingquza Hill LM	083 562 3717		
Ms Jotile (Ward 16)	Ingquza Hill LM	083 462 3892		
Mr Mpofana (Ward 17)	Ingquza Hill LM	071 865 3038		
Mr Zati (Ward 18)	Ingquza Hill LM	073 782 1459		
Mr Mtsosto (Ward 19)	Ingquza Hill LM	074 865 3591	mndenyane@ihlm.gov.za	
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Ms Daniso (Ward 21)	Ingquza Hill LM	083 668 5540		
Mr Tshwatshuka (Ward 22)	Ingquza Hill LM	083 668 4480		
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T Songunzu	Ingquza Hill LM	073 665 5772	
M Mfolozi	Ingquza Hill LM	083 444 1194	
F Mdutshane	Ingquza Hill LM	083 440 3459	
L Dumani	Ingquza Hill LM	082 209 3471	
N Ndondo	Ingquza Hill LM	083 446 0225	
S Mnge	Ingquza Hill LM	073 555 7913	
Z Bashe	Ingquza Hill LM	083 419 8256	
M Tana	Ingquza Hill LM	083 448 2567	
NF Diko	Ingquza Hill LM	083 591 4708	
N Nyenyiso	Ingquza Hill LM	083 447 1990	
B Mfitizo	Ingquza Hill LM	083 444 0933	
NF Dwabayo	Ingquza Hill LM	076 587 6282	
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W Mhanywa	Ingquza Hill LM	083 444 4289	
N Bhala	Ingquza Hill LM	083 419 8550	
N kwakhwa	Ingquza Hill LM	060 380 5946	
M Sithilanga	Ingquza Hill LM	082 448 0351	
N Zikizela	Ingquza Hill LM	083 446 9036	
Z Tshemese	Ingquza Hill LM	083 448 3823	
M Matwasa	Ingquza Hill LM	078 670 1128	
NC Mkombe	Ingquza Hill LM	083 444 5600	
N Mtenjwa	Ingquza Hill LM	083 445 2229	
N Linganiso	Ingquza Hill LM	083 441 5869	
XW Sopilase	Ingquza Hill LM	083 448 3303	
M Mkwenkwe	Ingquza Hill LM	078 514 4996	
M Mali	Ingquza Hill LM	083 442 2457	
NC Cawe	Ingquza Hill LM	083 419 9499	
L Mgwaza	Ingquza Hill LM	083 444 3153	

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Y Kholisile	Ingquza Hill LM	083 441 4355		
Veliswa Peter	Ingquza Hill LM	083 447 5064		
Nothemba Jijimba	Ingquza Hill LM	073 559 0100		
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Michael Gqweta	Ingquza Hill LM	083 440 8277		
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Alicia Mbalo	Ingquza Hill LM	083 443 2703		
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S Matwasa	Ingquza Hill LM	078 741 4790		
M Mafanya	Ingquza Hill LM	083 424 8945		
S Dlomo	Ingquza Hill LM	083 622 4396		
S Mbendana	Ingquza Hill LM	073 900 5574		
M Siko	Ingquza Hill LM	083 770 6499		
M Mthemba	Ingquza Hill LM	078 501 5948		

	Sc	oping Report – November 2	2015
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K A Duntsula	Ingquza Hill LM	073 348 5430	
M Mbena	Ingquza Hill LM	072 662 3883	
B Mbena	Ingquza Hill LM		
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Mgwili Dedani	Ingquza Hill LM	073 702 0716	
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NM		0737765798	
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M Gqithile		0781981327	
N Manciya	Mthimde	0791148282	
N Manciya		0835328191	
Nonciba		0739391160	
N Manciya		0761042278	
D Nontlahla	Mthimde	0786529625	
Z Wenase		0789032726	
Makhayisa	Mthimde	0784079826	
Noncedo	Mthimde	0792328534	

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Nomthuhzi		0727500955	
Z Duntsula	Mthimde	0835623256	
Khalipha Masele	Mthimde	0839646096	
S Tshitshi	Mthimde	0785363563	
N Nota	Mthimde	0833514435	
N Makatana	Mthimde	0820991033	
N Ngebe	Mthimde	0837641763	
T Mtiwani	Mthimde	0781770225	
M Nombulelo	Mthimde	0810012301	
D Monde	Mthimde	0717907011	
M Bunzi	Mthimde	0836842208	
V Phulani	Mthimde	0783291552	
D Noziwendu	Mthimde	0720799951	
B Gxottho	Mthimde	0785196160	
S Mathe	Mthimde	0787154432	
S Sxakata	Mthimde	072291102	
S Nkomayitshe	Mthimde	0838611580	
N Majija	Mthimde	0603049493	
B Majija	Mthimde	0711922577	
P Sulwana	Mthimde	0730688662	
A Phuzi	Mthimde	0738446263	
P Khuthala		0737803128	
M Nana	Mthimde	0710697921	
M Nkululeko		0604083161	
S Makanya	Mthimbe	0780893994	
N Ngwane		0739596131	
P Luthando	Dumezweni	0733074361	
N Sivuyile	Dumezweni	0836962664	
Pansomso	Dumezweni	0780459326	
M Malizo	Mthimde	0733166345	
L Zaphe	Mthimde	0833375169	

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L Mlakalaka		0717493021	
Vuyiswa	Mthimde	0736368407	
Mbeko	Mthimde	0738591136	
Phatheka Manciya	Mthimde	0761574552	
Kholeka		0787251549	
Ntombikayise		0735112173	
N Myekethe		0739860780	
Mafaka		0793518618	
Manyatha		0732030063	
Vuyelwa		0737216304	
Selani		0729785047	
Nothembile		0734737388	
Ngolomi		0738073123	
Qokweni		0785108024	
N Nosiphiwo	Mthimde	0731000719	
T Ntombemhlophe		0719422419	
Nowezile Maijebisi		0729742912	
Nozamile Zabhoyani		0820683568	
Nomlhunzi Mathubeni		0603522550	
N Majija		0783972922	
Mantlani Mabeno		0784897674	
M Molwande	Mthimde	0717142889	
Gxobo Phumlani	Mthimde	0785842948	
Ludiya Lunga	Mthimde	0838740476	
Khangomso M	Mthimde	0834833231	
S Khanyile	Mthimde	0781118550	
M Sondisilo	Mthimde	0723078732	
S Mawande	Mthimde	0781115850	
Sihawu	Mthimde	0785387321	
B Gunuza	Mthimde	0832470957	
M Jijimba	Mthimde	0782698162	

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Mcebisi S		0630416319	
Mzwandile	Dumezweni	0833440071	
Sizwe		0789868866	
Sulwana Azola	Mthimde	0834793144	
M Sifisio		0733606882	
M Lindile	Dumezweni	0737054918	
S Dingi	Mthimde	0739573137	
Stembiso	Mthimde	0734568053	
S Manyukana	Mthimde	0717926398	
Xolani		0782733503	
S Gxotho	Mthimde	0781890321	
Siphelele		0733735492	
Bonga		0810064299	
T Nofikiso		0739511367	
Nowethu		0730799711	
Macabe		0784310123	
N Ngewu	Mthimde	0791866270	
M Nonhanhla	Mthimde	0734627276	
M Nokwanda	Mthimde	0719983476	
N Sidinana	Mthimde	0731848400	
Mathuwa Hoza	Mthimde	0734690184	
G Bukeka	Mthimde	0836370023	
M Nocuza	Mthimde	0710775451	
N Majija	Mthimde	0820635255	
B Mkize	Mthimde	0718298807	
S Mkize	Mthimde	0784137236	
I&AP	Zalu	0835292585	
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