

PROPOSED LUSIKISIKI SEWER AND SEWER TREATMENT PLANT ENVIRONMENTAL IMPACT ASSESSMENT

1. The purpose of this document

This Background Information Document (BID) serves to inform all Interested and Affected Parties (I&APs) that OR Tambo District Municipality (hereafter referred to as ORTDM) has applied for a Waste Management Licence and Environmental Authorisation for the construction of a new Waste Water Treatment Works (WWTW), as well as interceptor sewer mains and reticulation pipelines throughout the town of Lusikisiki, in the Eastern Cape.

In order to commence with the proposed project, ORTDM requires a Waste Management Licence from the National Department of Environmental Affairs and an Environmental Authorization from the Eastern Cape Department of Economic Development and Environmental Affairs (EC DEDEA), under the provisions of the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) as amended, the provisions of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008), and the requirements of the relevant EIA regulations, 2010 and Government Notice 718. Therefore, ORTDM is required to:

1. Notify and Consult with Interested and Affected Parties (I&APs); and
2. Conduct and Environmental Impact Assessment (EIA) and submit an EIA Report and Environmental Management Programme (EMPr).

Environmental Impact Management Services (Pty) Ltd (EIMS) has been appointed to assist in complying with these requirements.

Public participation forms an integral part of the Environmental Impact Assessment (EIA) process, offers the reader the opportunity to obtain information, comment, raise issues of concern and collaborate in the development of the process. The distribution of this document is a crucial step in advising the reader on how to become involved in the process. The document aims at providing basic information regarding the project and this includes:

- An introduction to the project, including location details.
- An overview of the proposed activities and legal framework in which the project is executed.
- An explanation of the Public Participation Process (PPP) to be followed.
- An explanation of how to get involved as an I&AP:

This may be in the form of comments, suggestions, queries, objections, approvals, etc. and may be done via e-mail, fax, letter, at events or telephonically. Initial comments and objections must be submitted **no later than 31 August 2011** for consideration in the Final Scoping Report.

2. Introduction to project

The proposed sewer network and waste water treatment plant project will take place in Lusikisiki, Ingquza Hill Local Municipality, which falls under the jurisdiction of the OR Tambo District Municipality (ORTDM) in the Eastern Cape. The project aims to provide waterborne sanitation to approximately 1352 erven, including the town of Lusikisiki and the surrounding urban developments. Thus, the project will service Lusikisiki Town, RDP houses, the local hospital, the local prison and teachers college.

The older parts of the town are serviced by waterborne sanitation, with sewage either flowing to septic tanks or gravitating to two different “treatment” facilities. Almost no treatment takes place at these facilities and most of the sewage is discharged directly into the surrounding surface water resources.

The proposed sewerage infrastructure will include manholes and these manholes will be brick structures, which will serve to increase the labour content of the project and thereby to help create employment. Appropriate sewer design standards, including grades and design parameters will be adhered to.

The proposed sewer mains and reticulation pipelines will consist of un-plasticised polyvinyl chloride (uPVC) heavy duty class 34 sewer pipes and pipe fittings to comply with SANS 1601 and SANS 791. These pipelines will be located within a three metre wide servitude, with the necessary inspection chambers provided along the pipeline routes. The total length of pipelines envisaged is 48 000 m.

The sewer mains will range in diameter from 160 mm – 200 mm and will be laid on a minimum grade of 1:150 (1%). Anchor blocks will be necessary on a slope with a gradient greater than 10%. The pipes will be designed at 60% full capacity to allow for storm water ingress.

Sewage treatment will take place at one of two alternative sites to be investigated during the Scoping and EIA phases of the project. The extended aeration activated sludge system will be used to treat the water to the required standards as per the requirements of the Department of Water Affairs (DWA) and any subsequent licences that may be required for the discharge of the effluent to the nearby river. Pond systems were also considered for this project, however, these systems are only regarded as suitable to treat up to 500 kl/day (in comparison to the 3 Ml/day required for this project).

The sewage to be treated will originate from RDP houses, residential houses, the Lusikisiki Hospital, the Lusikisiki Prison and the Lusikisiki Training Teachers College. Please refer to Table 1 below for the anticipated quantities of sewage to be treated by the proposed Waste Water Treatment Works (WWTW) based on the anticipated Average Dry Weather Flow (ADWF).

When taking into account the Peak Wet Weather Flow (PWWF), allowance is made for 15% ingress of storm-water. The anticipated PWWF values for each of the sources are provided in Table 1 above. It should be noted that the only section of pipeline that has been designed to carry a PWWF of more than 120 l/s is where the bulk pipeline from the town and middle income houses, Lusikisiki Hospital and Lusikisiki Prison join to flow to the proposed WWTW site (approximately 2 km).

The extended aeration activated sludge system will be used to treat the water to the required standards as per the requirements of the Department of Water Affairs and any subsequent licences that may be required for the discharge of the effluent to the nearby river.

It is proposed that sludge drying beds be utilised to prepare the sludge for disposal. At design capacity, the amount of sludge for disposal will be 300 kg/day of dry solids. Suitable disposable methods will be considered during the Scoping and EIA phases of the project. As the sludge is essentially of domestic origin, it is anticipated that it would be possible to have the sludge classified as suitable for agricultural purposes or for co- disposal with domestic refuse top a nearby landfill site.

Table 1: Source, quantity and flow rate of the anticipated future ADWF and PWWF.

Source	Volume (m3/day)	Total Future PWWF (l/s)
RDP houses	691	29.57
Town and Middle income houses	1 227	52.54
Lusikisiki Hospital	159	9.15
Lusikisiki Prison	1 110	64.2
Lusikisiki Training Teachers College	47	2.69
Total	3 234	158.15

3. Details of application area

Affected Properties: A specific defined study area has been identified for the purposes of conducting this EIA process. The study area includes approximately 35 properties. Please refer Figure 1 for a broad overview of the location of the study area. For a complete list of the affected properties please refer to the property list provided on EIMS's website (www.eims.co.za) or alternatively contact EIMS at the details provided in this document.

Region: The project is proposed to take place within the town of Lusikisiki, Ingquza Hill Local Municipality.

Province: Eastern Cape.

4. Legal requirements

In August 2010, new EIA Regulations were promulgated under the NEMA. These Regulations consist of process regulations (GNR 543); three activity listing notices (GNR 544-546); and the regulations for Environmental Management Frameworks (GNR 547). The public participation process will follow the requirements of Section 54 (c) of GNR 543. The proposed ORTDM project is anticipated to trigger certain activities listed in GNR 544, 545 and 546, as well as GN 718, which require environmental authorisation prior to commencement. In order to be considered for the issuing of an Environmental Authorisation for these activities a full EIA process is required. This process is governed by the requirements of GNR543.

5. Impact assessment process

An EIA process is an effective planning and decision-making process, to describe and assess the physical, social and economic impacts which a given development may have. To be able to inform the decision-making process, it is important for public issues and concerns to be identified timeously, to enable the EIA team to evaluate them.

The EIA process allows for the environmental consequences of a proposed project to be identified upfront, investigated throughout the impact assessment process and taken into consideration by the decision-making authorities. The various specialists also identify potential negative and positive impacts that could arise as a result of the proposed project and identify applicable mitigation measures required, to avoid or reduce negative impacts and to enhance positive impacts.

The EIA process functions around two phases: the Scoping Phase and the Environmental Impact Report (EIR) Phase. During the scoping phase, (site and treatment process) alternatives will be evaluated and a recommendation will be made for the most favourable alternatives. This will be further investigated during the EIA phase. During the scoping phase, comments from interested and affected parties will be encouraged so that all potential impacts may be considered. Where possible, mitigation measures will be proposed. The Scoping Report will identify those aspects, which will require further investigation during the EIR phase.

Steps typically undertaken during an EIA

1. Initial notification and call to register as I&AP's through the following means: Advertisements, site notices, posters, letters to landowners and pre-identified I&APs. The aim of this step is to inform people of the proposed activity and to encourage initial comment and feedback;
2. Scoping Phase: This includes collation of initial comments, concerns, objections onto a concise report which provides feedback on the following:
 - Nature of the activity;
 - Description of the receiving environment;
 - Identification of potential feasible alternatives; identification of potential positive and negative impacts; and
 - Identification of knowledge gaps.
3. EIA Phase: the primary aim of this phase is to investigate and comparatively assess the identified alternatives and make a recommendation of the most suitable alternative. In addition the identified impacts are assessed and relevant management and mitigation measures listed for inclusion in an Environmental Management Plan.
4. Ongoing public consultation: throughout the process the public and specifically the I&APs registered during the initial notification phase will be consulted and involved. This involvement will be through dissemination of information by means of public meetings and focus group meetings, draft reports (Scoping and EIA), and project updates. The I&APs are encouraged to participate as far as possible.

Once the relevant processes have been completed and the resultant documentation submitted to the competent authority, the competent authority reviews the application and makes an informed decision. Once a decision as to whether to grant or refuse this application is made the I&APs will be informed of the decision and their right to appeal in the event that they disagree with the decision.

6. Potential impacts

One of the key drivers to a successful EIA is to ensure that potential impacts (both positive and negative) are identified and investigated. Management and mitigation measures will be recommended in the EIA Report (EIR) to attempt to alleviate, reduce or compensate for identified impacts, while enhancing the positive aspects.

A number of potential environmental impacts associated with the proposed project have been identified. Additional impacts may be identified during the scoping phase and relevant specialists will be included into the EIA team in order to accurately and objectively assess these potential impacts.

7. Alternatives

A key driver towards a successful EIA is the thorough identification and investigation of feasible alternatives. The selection of potential alternatives will be informed by input received from I&APs, as well as the specialist studies. Alternatives will be considered and discussed in terms of their practicality and feasibility. It is important to note that the definition of alternatives includes all aspects of the proposed activity including: activity alternatives; process alternatives; scheduling alternatives; demand alternatives; design alternatives; location alternatives and the No-go alternative.

The project involves the construction of a Waste Water Treatment Works, as well as an interceptor sewer main and reticulation sewerage. The exact location of the alternative sites and the preferred alternative(s) will only be confirmed at the end of the EIA process. The sensitivity of the receiving environment will be evaluated in terms of social, biophysical, economic and technical factors.

8. Your role in the public participation process

It is important that relevant I&APs are identified and involved in the public participation process from the beginning of the project. Issues and alternatives raised by I&APs will help focus the process and enhance the quality of the decision taken by the authorities. Public participation occurs throughout the EIA process (outlined above) and includes the following steps:

- Advertising – through newspaper, posters, site notices and BIDs;
- Registering – of I&APs (e.g. landowners, local authorities, community members etc.) on the database;
- Consultation – consulting with and transfer of information to, I&APs through focus groups and public meetings;
- IRR – summary of all comments, issues and concerns raised by I&APs and key stakeholders.
- Comments on Drafts – I&APs will be afforded a comment period to comment on the draft Scoping and EIA Reports;

The following steps in the public consultation process are still planned to be undertaken:

- Initial notification and call to register and availability of the Draft Scoping Report for Public Review;
- Public Open Day:
 - Purpose: **to introduce the project and to obtain issues, comments, suggestions and questions from the public**
 - Date: **26 July 2011, 11:00 to 17:00**
 - Venue: **Old Lusikisiki Teachers College**
- Availability of Draft EIR for public review and comment;
- Notification of authority decision and opportunity to appeal.

Input from the public is encouraged throughout the process.

9. How to get involved

As an I&AP you need to ensure that you are registered as an I&AP for the project and that you forward your comments within the stipulated timeframes to EIMS at the contact details provided in this document.

You can become involved by:

- Registering yourself by e-mail, fax, letter or phone as an I&AP;
- Submitting the Registration Form and mailing or faxing it to the contact person below;
- Attending the Open Day;
- Reviewing and commenting on the draft Scoping Report and EIR within the allowed review periods;
- Contacting the contact persons below with your comments, queries, suggestions, or request for further project information.

In order to ensure your continued involvement in this project, please submit your information, comments, queries or responses to:

Environmental Impact Management Services (Pty) Ltd

Contact person: Mr G.P. Kriel

Postal Address: P O Box 19731, Tecoma, 5214

Telephone: 043 721 1485

Fax: 086 571 9047

Email: gp@eims.co.za

Please quote reference number **0847** when commenting on this project.

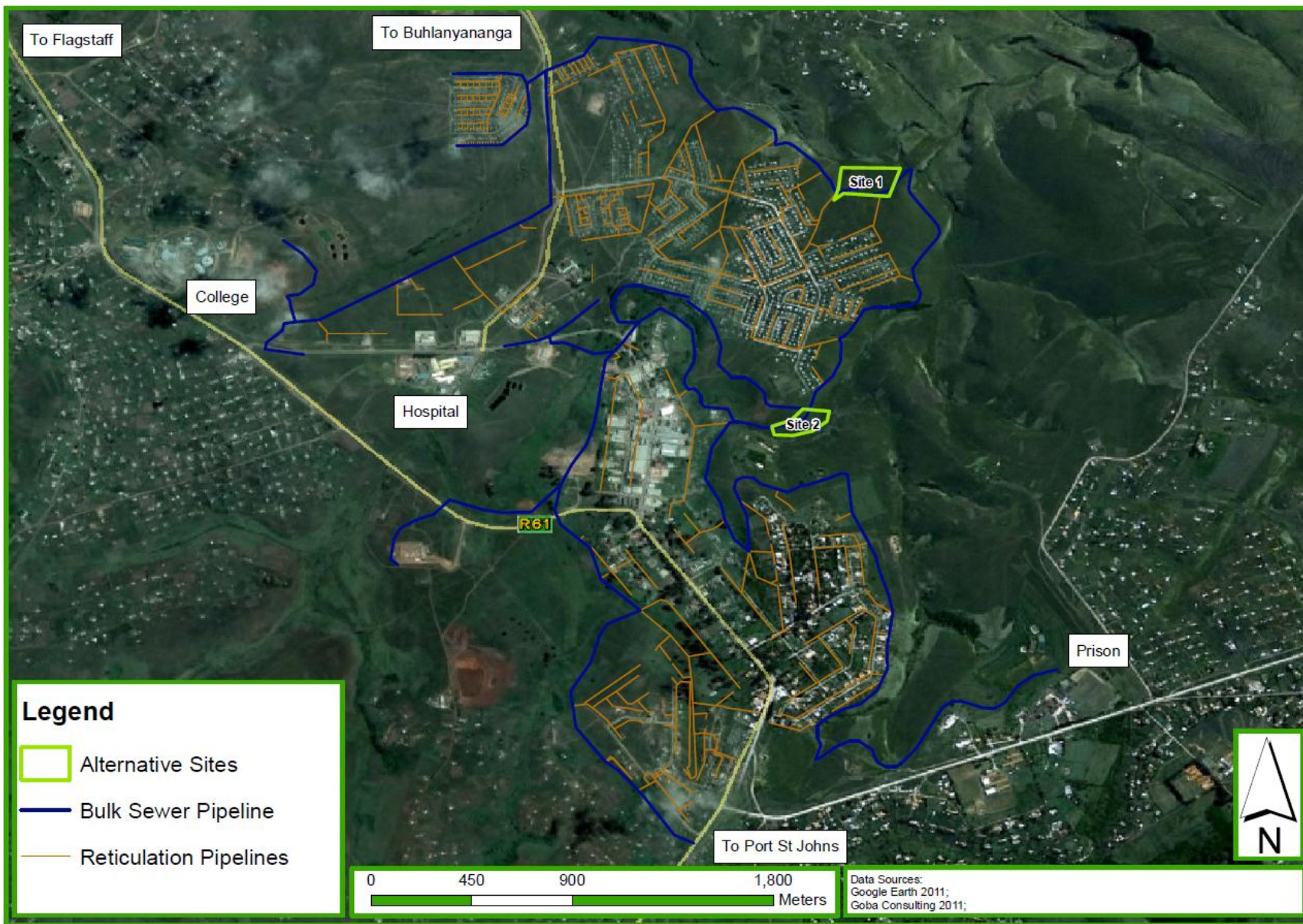


Figure 1: Map showing overview of the location of application area