HANSLAB (PTY) Ltd

ENVIRONMENTAL AND GROUND ENGINEERING SPECIALIST

2017

BACKGROUND INFORMATION DOCUMENT

PROJECT NAME:

PROPOSED UPGRADE OF THE EXISTING MKHIZWANA WATER TREATMENT WORKS

AREA/MUNICIPALITY:

ETHEKWINI METROPOLITAN MUNICIPALITY

CLIENT:

ETHEKWINI METROPOLITAN MUNICIPALITY

P.O. BOX 2135

Umhlanga Manors

4021

Tel No: 031 563 1978

Fax No: 086 552 4224

BEE Status: Level One

sheldon@hanslab.co.za

PROPOSED UPGRADE OF THE EXISTING MKHIZWANA WATER TREATMENT WORKS, NORTH OF CATO RIDGE. ETHEKWININI METROPOLITAN MUNICIPALITY KWAZULU-NATAL.

NOVEMBER 2016

CONTENT AND PURPOSE OF THIS DOCUMENT

This document contains background information regarding the proposed upgrade of the existing Mkhizwana Water Treatment Works. This document also contains information regarding the processes that will be undertaken in support of obtaining the necessary environmental authorisation required for the proposed project. The eThekwini Municipality has appointed Hanslab (Pty) Ltd as the independent Environmental Assessment Practitioner (EAP) to undertake the required Basic Assessment process in order to identify and evaluate potential environmental impacts and to recommend measures to avoid or reduce negative impacts and to enhance positive impacts. The Durban Department of Economic Development, Tourism, and Environmental Affairs are the competent authority in terms of the required Environmental Authorisation. The Department of Water and Sanitation (DWS) will review the application for a Water Use Licence (WUL).

The purpose of this document is to announce the proposed project so as to assist the members of the public to:

- Register as Interested and Affected Parties (I&AP) in order to be kept informed about further opportunities to participate in the proposed project; and
- Raise any concerns they may have regarding the proposed project.

REGISTRATION AS AN I&AP

As an Interested and Affected Party (I&AP), you will be included in the stakeholder database and receive further documents for comment. Your comments will ensure that all relevant issues are incorporated. Please complete and submit the enclosed registration/comment sheet, write a letter, call or email Hanslab (Pty) Ltd if you wish to raise any concerns regarding the proposed project.

PROJECT DESCRIPTION

Due to the increasing water demand in the areas supplied by the Mkhizwana WTW, there is an urgent need for an increase in the treatment capacity of the plant. The upgrade will entail a **2.7 Ml/day increase in treatment capacity of the current 1.3Ml/day, the total increased capacity will be 4.0Ml/day. All upgrades will take place within the existing boundary.**

LOCATION OF PROPOSED PROJECT

The study site is enclosed by moderately undulating terrain and is situated approximately 1.6km east of the confluence between the Umgeni and Umnsunduze River. The existing Mkhizwana Water Treatment Works is located in the rural part of the eThekwini Municipality in the Valley of a Thousand Hills, north of Cato Ridge in KwaZulu-Natal (30°41´47.42" E; 29°37´20.80" S).

LOCALITY MAP

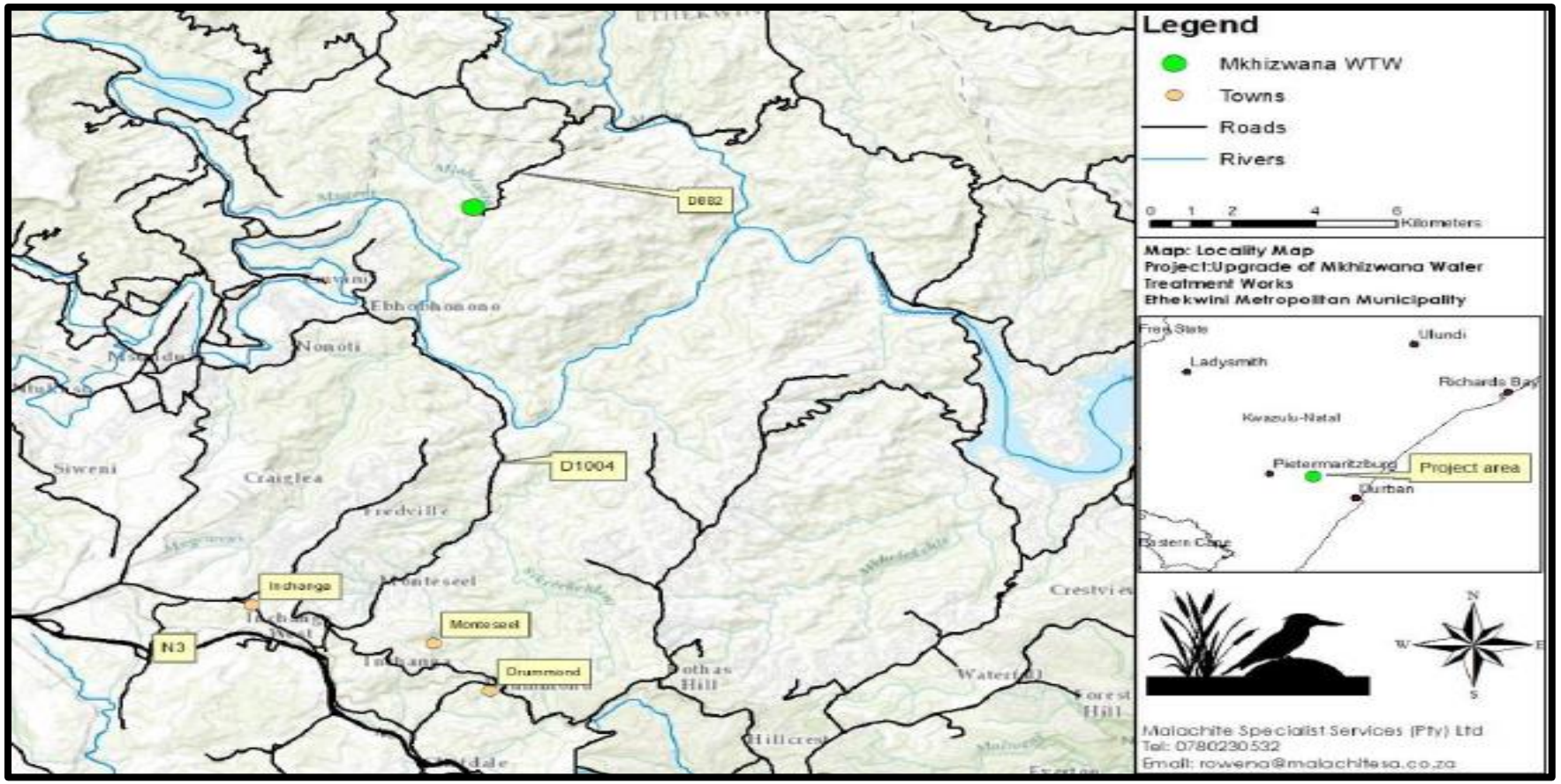

Figure 1: Showing location of the existing Mkhizwana Water Treatment Works

DESCRIPTION OF INFRASTRUCTURE

Proposed Construction Activities:

The proposed activity involves the upgrading of the existing water treatment works to cater for the increased demand within the region. Construction activities associated with the works footprint will include the construction of various components of the existing WTW; and where new infrastructure is required, it is to be accommodated within the bounds of the existing WTW footprint. These include:

Existing Infrastructure include:

- Slow sand filters (inclusive of outlet chambers)
- Clear water reservoir (inclusive of outlet chamber footprint)
- Pump house & Hypochlorite dosing facility (joint)
- Containers currently being used as office building & guardhouse (not fixed infrastructure)
- Sandwash bays
- Control chamber

Proposed New Structures:

- Pump house
- Generator slab
- Pump & blowers building
- Clear water reservoir
- Sodium Hypochlorite contact tank
- DN 3.5 Flocculation tank
- Guard, lab & office

Proposed upgrades to existing buildings:

- Raw water abstraction from Nagle aqueduct (Replace the two mechanical turbine meters with battery-operated electromagnetic flowmeters)
- Control chamber to dosing room
- Sodium Hypochlorite Dosing room
- SSF to clear water reservoir
- SSF to sludge holding tanks
- Sand wash bays to clarifier slab
- Existing access road that will be upgraded to cement