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BACKGROUND INFORMATION DOCUMENT (BID)

The proposed upgrading and expansion of the Boitekong WWTW (Ref. No. NWP/EIA/41/2014), Bospoort WTW (Ref. No. NWP/EIA/42/2014), and Monakato WWTW (Ref. No. NWP/EIA/44/2014). construction of a new Dissolved Air Flotation (DAF) plant at the Rustenburg WWTW (Ref. No. EIA241/2003NW) and a new pipeline from the Bospoort WTW to the Bospoort reservoirs (NWP/EIA/43/2014) currently under the jurisdiction of the Rustenburg Local Municipality, North West Province.

PURPOSE OF THIS DOCUMENT

The purpose of this document is to provide background information to the proposed projects and to obtain comments and contributions from stakeholders with regards to potential environmental impacts – which includes (but is not limited to): ecological, social, economic, physical, aesthetic, etc.

When an applicant proposes to undertake a listed activity, an application must be made for environmental authorisation. The application must be supported by a report, which has been compiled as a result of an assessment process. After the competent authority has made a decision on the application, an appeal may be made against the decision, or parts thereof.

Ecoleges, as the independent Environmental Consultant, has been appointed by Bigen Africa on behalf of the proponent/applicant, to compile the Basic Assessment (BA) Reports, Water Use License (WUL) applications, and amendments which will be reviewed by the relevant competent authorities (the North West Department of Rural, Environment and Agricultural Development (DREAD), and the Department of Water Affairs & Sanitation (DWAS), respectively).

The aim of the reports is to ensure that the environmental impacts are taken into consideration, to ensure stakeholder engagement, and to provide decision makers with sufficient information to make an informed decision on the proposed activities.

The Departments' decision whether to grant or refuse an Environmental Authorisations (EA), WUL and amendments will be based on information provided in the reports.

**YOUR COMMENTS WILL FORM PART OF THE BA AND
WUL APPLICATION REPORTS**

APPLICABLE LEGISLATION FOR THE UPGRADING & EXPANSION OF BOITEKONG WWTW AND BOSPOORT WTW; CONSTRUCTION OF A NEW DISSOLVED AIR FLOTATION (DAF) PLANT AT THE RUSTENBURG WWTW; NEW PIPELINE FROM THE BOSPOORT WTW TO THE BOSPOORT RESERVOIRS AND UPGRADING OF THE MONAKATO WWTW.

Notice is given in terms of Regulations 21(2) (a) and 54(2) (c) of GN No. R. 543, 18 June 2010, made under sections 24(5), 24M and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

An application was submitted to the North West Department of Rural, Environment and Agricultural Development (DREAD) on **29th August, 2014** to undertake activities identified in Listing Notice 1, GN No. R. 544, published on 18 June 2010 (amended on 02 August 2010) for:

- The proposed upgrading and expansion of the Boitekong WWTW;
- The proposed upgrading and expansion of the Bospoort WTW;
- The construction of a new Dissolved Air Flotation (DAF) plant at the Rustenburg WWTW;
- The proposed new pipeline from the Bospoort WTW to the Bospoort reservoirs;
- Upgrading of the Monakato WWTW.

All currently under the jurisdiction of the Rustenburg Local Municipality, North West Province.

Furthermore, an application for WUL amendment in terms of the National Water Act, 1998 (Act No. 36 of 1998) may be submitted to the Department of Water Affairs & Sanitation for:

- A Section 21 (f) discharging waste or water containing waste into a water resources;
- A Section 21 (g) disposing of waste in a manner which may detrimentally impact on a water resource.

The proposal includes the following potential listed activities:

EIA Regulations LN 1 of 2010:

- Activity No. 9- The construction of facilities or infrastructure exceeding 1 000m in length for the bulk transportation of water, sewage or storm water –
 - (i) with an internal diameter of 0,36 metres; or
 - (ii) with a peak throughput of 120 litres per second or more,Excluding where:
 - a) Such facilities or infrastructure are for bulk transportation of water, sewage or storm water or storm water drainage inside a road reserve; or
 - b) Where such construction will occur within urban areas but further than 32 metres from a watercourse, measured from the edge of the watercourse.
- Activity No. 28- The expansion of existing facilities for any process or activity where such expansion will result in the need for a new, or amendment of, an existing permit or license in terms of national or provisional legislation governing the release of emissions or pollution, excluding where the facility, process or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008, in which case that Act will apply.

An application will be lodged with the relevant authority for an amendment to the previous Record of Decision for the new Dissolved Air Flotation (DAF) at the Rustenburg WWTW.

An application for an amendment for the water use license for the Monakato WWTW will be required.

The BA process is a planning and decision-making tool that is used to identify, predict and evaluate the potential and actual environmental impacts of a proposed development or project. It is conducted in compliance with Chapter 5 of the National Environmental

Management Act, 1998 (NEMA) as amended. The EIA regulations, 2010 identify a list of activities for which a BA must be conducted.

PURPOSE OF THE PROJECT

The overall objective is to undertake and complete a robust and defensible BA & WUL process that will serve to inform the North West Department of Rural, Environment and Agricultural Development's (DREAD) & DWAS decision on the environmental acceptability of the proposed developments.

LOCATION

See GPS coordinates under Rustenburg local Municipality, North West Province:

Boitekong WWTW: 25° 35' 53.88"S 27° 17' 51.78"E;

Bospoort WTW: 25° 33' 42.04"S 27° 20' 57.14"E;

Rustenburg WWTW: 25° 39' 10.28"S 27° 16' 49.60"E, situated near the industrial area of Rustenburg, just to the east of the town of Rustenburg;

New pipeline from Bospoort water Treatment works to Bospoort Reservoir is situated some 15km north east of Rustenburg;

Monnakato WWTW: 25° 20' 17.02"S 27° 16' 42.53"E.

Consolidated Locality Map - Grouped Water Sanitation Infrastructure Upgrade Rustenburg, Monnalato, Bospoort & Boitekong.

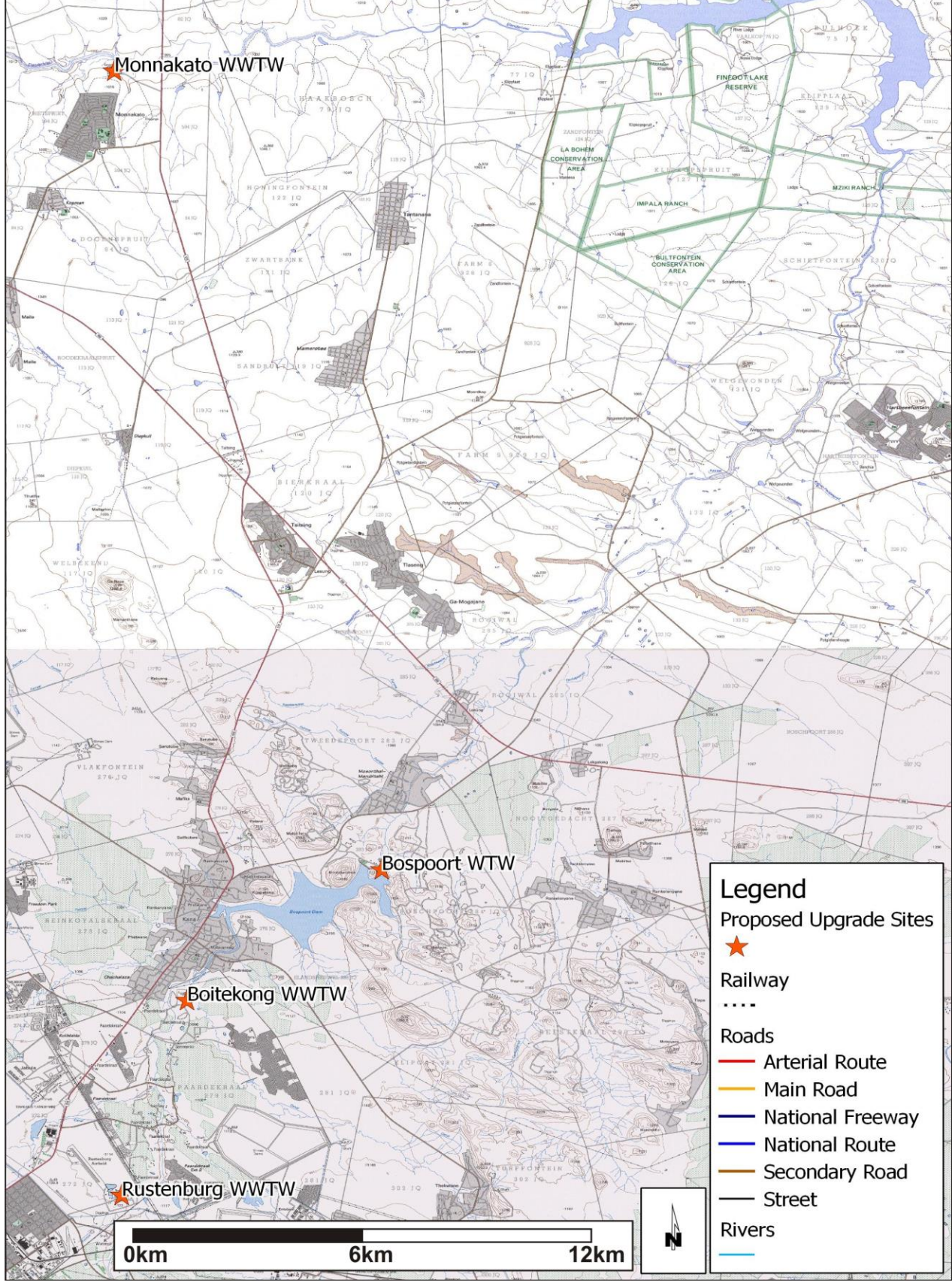


Figure1: Location of the Grouped Sanitation Projects, Rustenburg Local Municipality.

PROJECT DESCRIPTION

1. The existing Boitekong Waste Water Treatment Works is an 8Mℓ/d biological nutrient removing plant. It needs to be upgraded by 10Mℓ/d to an 18Mℓ/d BNR plant. The total extension of the plant will occur within the perimeter fence of the existing facility and no additional or new land will be required to implement this project. The motivation for the project is the fact that the design capacity of 8Mℓ/d of the plant is regularly exceeded by up to 40Mℓ/d resulting in substandard effluent being released into the Hex River and consequently the Bospoort Dam from where water is abstracted for treatment and domestic use.
2. The existing Bospoort Water Treatment Works is a 12Mℓ/d facility. In view of the regular and serious water shortages that Rustenburg Local Municipality experiences during the early summer months before the rainy season has commenced, it is imperative that this plant be upgraded to provide additional water. The extended plant will be constructed within the perimeter fence of the existing facility.
3. The DAF plant will be constructed adjacent to the current WWTW footprint, next to the existing effluent pump station, belonging jointly to two mining groups. The flow balancing tank will be a simple earth embankment structure lined with an HDPE liner and it will have an approximate volume of 5,000 m³. The DAF tank will be a concrete structure, approximately 30m x 15m footprint and 3m deep. This additional unit process will enhance effluent quality and will allow full utilization of the effluent in lieu of scarce potable water.
4. As an interim measure in order to augment the supply of water to Rustenburg, it was decided that 600mm diameter pipe will be constructed between the WTW and the nearby Bospoort Reservoirs. The reservoirs are approximately 2 kilometres from the plant along the proposed pipe route, which follows existing access roads. In future this pipe will also be connected to the bulk water pipeline (whether the parallel system or a new 600mm pipe) between Rustenburg and Bospoort Water Treatment Works. The pipe will be a steel pipe and it will convey 12Mℓ/d (approximately 150ℓ per second) from the plant to the reservoirs where it will be incorporated in the existing Vaalkop pipeline between the Bospoort Reservoirs and Rustenburg Municipality, thereby augmenting the availability of potable water to the town.
5. The Monakato Waste Water Works is an oxidation pond system and the upgrading envisaged will constitute the improvement of the inlet works, which can be considered refurbishment rather than new work. The additional work will consist mostly of the improvement of the existing oxidation ponds (the footprint of the plant will not be extended but the ability of the plant to treat flow will be greatly improved). Some of the funding will be used to install floating aerators if shown to be necessary.

DESCRIPTION OF TASKS

- An advertisement will be placed in the Platinum Weekly, a local newspaper, on 03rd October, 2014.
- Stakeholders, including adjacent landowners, neighbours within a 100 m radius, and the relevant authorities will be notified of the proposed development in writing on the 03rd October, 2014.
- Notice boards advertising the applications will be placed at the site on the 07th October, 2014.
- A Public meeting will be held at 10h00 on 17th October 2014 at the Rustenburg Local Municipality.

ANTICIPATED ISSUES

Environmental issues that may be addressed in the Report could include the following:

- Wetlands and/or non-perennial watercourses (including 1:100 yr floodline);
- Terrestrial Ecology;
- Visual Impact;
- Topography including gradient;
- Impact of storm water runoff on areas downstream of the development;
- Surface water hydrology.

YOUR COMMENTS PLEASE!

Your comments on the proposed projects, the public participation process, and issues needing investigation, will assist the technical studies and the authorities in their consideration of the relevant environmental and social aspects.

You are invited to register as an Interested and Affected Party (I&AP) and to assist us in:

- identifying possible impacts of the proposed developments on the environment,
- making suggestions for mitigation and/or alternatives, and
- considering the “need” and “desirability”.

Mitigations

Mitigation measures will be developed for the anticipated issues. Stakeholders are however welcome to comment on these issues and provide additional observations.

Alternatives

Consideration of Alternatives is one of the most critical elements of the BA process. Its role is to provide a framework for sound decision-making based on the principle of sustainable development.

Alternatives should be identified as early as possible in the project cycle.

Ecoleges not only welcomes stakeholders' input/suggestions, but also urges the public to submit possible alternatives.

It is important to note that an alternative is defined as a 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 technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

When submitting alternatives, the recommended alternative must be:

- Practicable,
- **Feasible**,
- Relevant,
- **Reasonable** and
- Viable.

Need and Desirability

'Need and desirability' is determined by considering the broader societal/community needs and interests. The general meaning of need and desirability refers to time and place, respectively, i.e. is this the right time and is it the right place for locating the proposed activity.

In order to ensure that you are registered as an interested and/or affected party, Please complete the enclosed REGISTRATION AND COMMENT SHEET and forward it to the address, fax or email provided below, on or before **Monday, 03rd November 2014**.

Postal Address:

P.O Box 9005
Nelspruit
1200

Fax: 086 697 9316

E-mail: shenwood@mweb.co.za

OR For any enquiries or further information

Visit us at:

Physical address:

12 Suikerriet Street
Central Park Business Centre
Unit 12.3
Nelspruit
1200

Cell: 078 672 3645



REGISTRATION AND COMMENT SHEET

The proposed upgrading and expansion of the Boitekong WWTW (Ref. No. NWP/EIA/41/2014), Bospoort WTW (Ref. No. NWP/EIA/42/2014), and Monakato WWTW (Ref. No. NWP/EIA/44/2014), construction of a new Dissolved Air Flotation (DAF) plant at the Rustenburg WWTW (Ref. No. EIA241/2003NW) and a new pipeline from the Bospoort WTW to the Bospoort reservoirs (Ref. No. NWP/EIA/43/2014) currently under the jurisdiction of the Rustenburg Local Municipality, North West Province.

ECOLEGES REFERENCE: 2014_003P

Title: _____ Name: _____

Surname: _____

Company Name / Interest Group: _____

Postal or Residential Address: _____

Town/City: _____

Postal Code: _____

Tel: (_____) _____

Cell: _____

Fax: (_____) _____

E-mail address: _____

In accordance with EIA Regulations, 2010– Regulation 56 (1) - A registered interested and affected party is entitled to comment, in writing, on all written submissions including draft reports made to the competent authority... provided that - (c) the interested and affected party discloses any direct business, financial, personal or other interest which that party may have in the approval or refusal of the application. Please supply such information in the space provided below.

Please indicate with an **X** whether you would like to be kept informed of the BA & WUL process:

YES, I would like to be kept informed	YES
NO, I am not interested	NO

If "YES", how would you like to be informed? (please mark the appropriate block with an "X").

E-mail	
Fax	

COMMENTS: (If you require more space than that which is provided, please attach additional pages)

Thank you for your participation

Please be assured that your comments will form part of the final document to be submitted to the decision-making authority.

Please complete and return this Registration and Comment sheet to **STEVEN HENWOOD** by no later than **03rd November 2014**.

**Address: P.O. Box 9005
Nelspruit
1200
Fax: 086 697 9316
E-mail: shenwood@mweb.co.za**

Please feel free to phone us on 078 672 3645, should you not have access to fax or e-mail