



Tsantsabane Local Municipality

# Draft Basic Assessment Report

Proposed installation of a bulk water pipeline from the Postdene reservoir to the Greenfields residential development in Postmasburg



# BASIC ASSESSMENT REPORT



**the denc**

Department:  
Environment & Nature Conservation  
NORTHERN CAPE PROVINCE  
REPUBLIC OF SOUTH AFRICA

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(For official use only)

**File Reference Number:**

**Application Number:**

**Date Received:**


**Basic Assessment Report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.**

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**Kindly note that:**

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **08 December 2014**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of “not applicable” in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

## SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section? 

YES ✓	NO
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If YES, please complete the form entitled “Details of specialist and declaration of interest” for the specialist appointed and attach in Appendix I.

### 1. ACTIVITY DESCRIPTION

#### a) Describe the project associated with the listed activities applied for

Proposed installation of a bulk water pipeline (710 ø) from the Postdene reservoir to the Greenfields residential development in Postmasburg.

The project also includes the construction of an 11Mℓ reservoir and a 0.8Mℓ water tower at the Postdene reservoir site, which are listed under the NEMA EIA Regulations Listing Notice 3, because the area falls within a Critical Biodiversity Area 1 (CBA 1).

#### b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN 734, 735 and 736	Description of project activity
<b>Example:</b> <b>GN 734 Item xx xx): The construction of a bridge where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</b>	<b>A bridge measuring 5 m in height and 10m in length, no wider than 8 meters will be built over the Orange river</b>
GN R. 983 of December 2014, as amended (Listing Notice 1), Activity 9: “The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more; excluding where— (a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.”	Installation of a bulk water pipeline (diameter of 710mm and length of approximately 1.9km) from the Postdene reservoir to the Greenfields residential development, Postmasburg.

<p>GN R. 985 of December 2014, as amended (Listing Notice 3), Activity 2 g iii (dd):</p> <p>“The development of reservoirs, excluding dams, with a capacity of more than 250 cubic metres, in the Northern Cape, outside urban areas: Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.”</p>	<p>The project includes the construction of a 11 000m<sup>3</sup> (11ML) reservoir and an 800m<sup>3</sup>(0.8ML) water tower at the Postdene reservoir site. The area falls within a Critical Biodiversity Area 1 (CBA 1).</p>
<p>GN R. 985 of December 2014, as amended (Listing Notice 3), Activity 12 g ii:</p> <p>“The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan, in the Northern Cape, within critical biodiversity areas identified in bioregional plans.”</p>	<p>Vegetation clearance is required for the installation of the pipeline. The area falls within a Critical Biodiversity Area 1 (CBA 1).</p>

## 2. FEASIBLE AND REASONABLE ALTERNATIVES

“**alternatives**”, in relation to a proposed activity, means 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.

Describe alternatives that are considered in this application as required by Appendix 1 (3)(h), Regulation 2014. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must 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. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

**a) Site alternatives**

<b>Alternative 1 (preferred alternative)</b>		
Description	Lat (DDMMSS)	Long (DDMMSS)
<b>Alternative 2</b>		
Description	Lat (DDMMSS)	Long (DDMMSS)
<b>Alternative 3</b>		
Description	Lat (DDMMSS)	Long (DDMMSS)

In the case of linear activities:

<b>Alternative:</b>	<b>Latitude (S):</b>	<b>Longitude (E):</b>
Alternative S1 (preferred)		
• Starting point of the activity	<b>28° 18' 0.99" S</b>	<b>23° 6' 39.54" E</b>
• Middle/Additional point of the activity	<b>28° 18' 23.20" S</b>	<b>23° 5' 57.92" E</b>
• End point of the activity	<b>28° 18' 23.25" S</b>	<b>23° 5' 37.17" E</b>
Alternative S2 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S3 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A of this form.

**b) Lay-out alternatives**

<b>Alternative 1 (preferred alternative)</b>		
Description	Lat (DDMMSS)	Long (DDMMSS)
<b>Refer to the pipeline route in Appendix A.</b>		
<b>Alternative 2</b>		
Description	Lat (DDMMSS)	Long (DDMMSS)
<b>Alternative 3</b>		
Description	Lat (DDMMSS)	Long (DDMMSS)

**c) Technology alternatives**

<b>Alternative 1 (preferred alternative)</b>
Three options were considered with regard to water provision for Postmasburg. One being a network where water was supplied fully by Sedibeng Water, one being where water is fully supplied by boreholes (existing and proposed) and the last (and preferred) where it is a combined supply from boreholes (existing and proposed) and Sedibeng Water. The supply to this pipe were the alternatives considered, the pipeline route remains unchanged.
<b>Alternative 2</b>
<b>Alternative 3</b>

**d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)**

<b>Alternative 1 (preferred alternative)</b>
710mm diameter pipeline is planned.
<b>Alternative 2</b>
Pipeline diameter smaller than 710mm, if deemed necessary by lower demand in the network.
<b>Alternative 3</b>

**e) No-go alternative**

<p>The no-go alternative involves not construction the bulk water pipeline.</p> <p>This bulk water pipeline forms part of a much larger bulk water project where new boreholes and bulk water pipes are planned to be constructed to provide water to existing and future Postmasburg areas. If this pipeline isn't constructed, then the water from the proposed boreholes will not be supplied to the reservoirs and towers and subsequently the internal Postmasburg network. This will have an effect on the rate of supply and place strain on the existing infrastructure, which is not sized for the future developments. The people of Postmasburg will eventually be without water.</p>
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Paragraphs 3 – 13 below should be completed for each alternative.

**3. PHYSICAL SIZE OF THE ACTIVITY**

**a) Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):**

**Alternative:**

- Alternative A1<sup>1</sup> (preferred activity alternative)
- Alternative A2 (if any)
- Alternative A3 (if any)

**Size of the activity:**

	m <sup>2</sup>
	m <sup>2</sup>
	m <sup>2</sup>

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<sup>1</sup> "Alternative A.." refer to activity, process, technology or other alternatives.

or, for linear activities:

**Alternative:**

Alternative A1 (preferred activity alternative)  
 Alternative A2 (if any)  
 Alternative A3 (if any)

**Length of the activity:**

<b>± 1900 m</b>
m
m

**b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):**

**Alternative:**

Alternative A1 (preferred activity alternative)  
 Alternative A2 (if any)  
 Alternative A3 (if any)

**Size of the site/servitude:**

m <sup>2</sup>
m <sup>2</sup>
m <sup>2</sup>

**4. SITE ACCESS**

Does ready access to the site exist?

If NO, what is the distance over which a new access road will be built

YES ✓	NO
m	

Describe the type of access road planned:

N/A
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Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

**5. LOCALITY MAP**

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s);
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).



## **6. LAYOUT/ROUTE PLAN**

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

## **7. SENSITIVITY MAP**

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWS);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

## **8. SITE PHOTOGRAPHS**

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

## **9. FACILITY ILLUSTRATION**

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

**10. ACTIVITY MOTIVATION**

Motivate and explain the need and desirability of the activity (including demand for the activity):

<b>1. Is the activity permitted in terms of the property's existing land use rights?</b>	YES✓	NO	Please explain
A change of land use is not required for the installation of a pipeline.			
<b>2. Will the activity be in line with the following?</b>			
<b>(a) Provincial Spatial Development Framework (PSDF)</b>	YES	NO	Please explain
N/A			
<b>(b) Urban edge / Edge of Built environment for the area</b>	YES	NO✓	Please explain
The proposed section of pipeline is outside the urban edge of Postmasburg.			
<b>(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).</b>	YES✓	NO	Please explain
<b>(d) Approved Structure Plan of the Municipality</b>	YES✓	NO	Please explain
The project was identified in the Master Plan of 2014 which has a list of bulk upgrades for the greater Postmasburg area.			
<b>(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)</b>	YES✓	NO	Please explain
<b>(f) Any other Plans (e.g. Guide Plan)</b>	YES	NO	Please explain
<b>3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?</b>	YES✓	NO	Please explain
<b>4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)</b>	YES✓	NO	Please explain
The community needs the proposed pipeline and associated water infrastructure for water supply.			

BASIC ASSESSMENT REPORT

<p><b>5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</b></p>	YES	NO	Please explain
<p>N/A, activity involves water infrastructure.</p>			
<p><b>6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</b></p>	YES✓	NO	Please explain
<p><b>7. Is this project part of a national programme to address an issue of national concern or importance?</b></p>	YES✓	NO	Please explain
<p>Provision of water.</p>			
<p><b>8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)</b></p>	YES✓	NO	Please explain
<p>The pipeline needs to be positioned from the Postdene reservoir towards Postmasburg.</p>			
<p><b>9. Is the development the best practicable environmental option for this land/site?</b></p>	YES✓	NO	Please explain
<p>The installation of a water pipeline will not compromise any future development in the area / on site.</p>			
<p><b>10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?</b></p>	YES✓	NO	Please explain
<p><b>11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?</b></p>	YES	NO✓	Please explain
<p><b>12. Will any person's rights be negatively affected by the proposed activity/ies?</b></p>	YES	NO✓	Please explain
<p><b>13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?</b></p>	YES	NO✓	Please explain
<p><b>14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?</b></p>	YES✓	NO	Please explain
<p>SIP 12 – Water infrastructure</p>			

<b>15. What will the benefits be to society in general and to the local communities?</b>	Please explain
Provision of water.	
<b>16. Any other need and desirability considerations related to the proposed activity?</b>	Please explain
<p>The proposed bulk water pipeline forms part of upgrading of water infrastructure in Postmasburg, necessary for current and future needs.</p> <p>The planned upgrades for land developments will have an increased effect on the future water demands (from 11.7ML/day to 16.5ML/day) requiring augmentation of the bulk infrastructure.</p>	
<b>17. How does the project fit into the National Development Plan for 2030?</b>	Please explain
The project falls within the NDP 2030 goals as economic infrastructure (water) allowing for sustainable human settlements.	
<b>18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.</b>	
The project has, through the Basic Assessment Process, identified, predicted and evaluated actual and potential impacts on the environment. Public participation has also taken place and best suited modes of environmental management have been employed as far as possible.	
<b>19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.</b>	
NEMA Section 2 (2) states that environmental management must place people and their needs at the forefront of its concern. Although the proposed pipeline installation may have impacts on the environment, although assessed to be minimal, sustainable development is the main aim and it would be safe to say that the factors applicable to sustainable development, namely (4)(a)(ii), (iii), (iv) and (viii) of NEMA Section 2 are most relevant to the proposed development and the EIA process followed. Social, economic and environmental impacts have been considered and evaluated allowing the DENC to make an informed decision.	

## 11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

<b>Title of legislation, policy or guideline</b>	<b>Applicability to the project</b>	<b>Administering authority</b>	<b>Date</b>
National Environmental Management Act (Act 107 of 1998)	Legislation requiring Environmental Authorisation to be obtained for proposed development.	DENC	1998
National Heritage Resources Act (Act 25 of 1999)	A phase 1 Heritage Impact Assessment was undertaken to identify whether there are any heritage sites or occurrences on site.	SAHRA	1999

Northern Cape Biodiversity Areas Plan	The proposed pipeline route falls within a CBA 1 area.		2016
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## 12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

### a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES✓	NO
Unknown m <sup>3</sup>	

If YES, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

**Construction waste and general waste generated during the construction phase (approximately seven months) will be removed from site by the Contractor.**

Where will the construction solid waste be disposed of (describe)?

**A solid waste disposal site within Postmasburg (to be confirmed by the Tsantsabane Municipality).**

Will the activity produce solid waste during its operational phase?

YES	NO✓
m <sup>3</sup>	

If YES, what estimated quantity will be produced per month?

How will the solid waste be disposed of (describe)?

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

*If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.*

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?

YES	NO
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If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	NO
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If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

**b) Liquid effluent**

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

YES	NO✓
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If YES, what estimated quantity will be produced per month?

m <sup>3</sup>	
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Will the activity produce any effluent that will be treated and/or disposed of on site?

YES	NO
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*If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.*

Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES	NO
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If YES, provide the particulars of the facility:

<b>Facility name:</b>	N/A		
<b>Contact person:</b>			
<b>Postal address:</b>			
<b>Postal code:</b>			
<b>Telephone:</b>		<b>Cell:</b>	
<b>E-mail:</b>		<b>Fax:</b>	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A
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**c) Emissions into the atmosphere**

Will the activity release emissions into the atmosphere other than exhaust emissions and dust associated with construction phase activities?

YES	NO✓
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If YES, is it controlled by any legislation of any sphere of government?

YES	NO
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If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the emissions in terms of type and concentration:

N/A
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**d) Waste permit**

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?

YES	NO✓
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If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

**e) Generation of noise**

Will the activity generate noise?

YES✓	NO
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If YES, is it controlled by any legislation of any sphere of government?

YES	NO
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Describe the noise in terms of type and level:

**Noise is anticipated during the construction phase, as blasting at some sections may be required.**

**No noise will be produced during the operational phase of the proposed pipeline.**

### 13. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Municipal	Water board	Groundwater	River, stream, dam or lake	Other	The activity will not use water ✓
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

		litres
YES	NO	

### 14. ENERGY EFFICIENCY

Describe the design measures, if any, which have been taken to ensure that the activity is energy efficient:

**Infrastructure (pumps, motors and pipelines) relating to this project are designed to provide water to the end user in the most energy efficient manner possible. Pipes are sized to have minimal energy/head loss. Pumps and motors are sized at the peak of their energy curves.**

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

**Not applicable for the pipeline itself.**

## SECTION B: SITE/AREA/PROPERTY DESCRIPTION

### Important notes:

- For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A):

- Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section?  YES✓  NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

**Property description/physical address:**

<b>Province</b>	Northern Cape
<b>District Municipality</b>	Z.F. Mgcawu District Municipality
<b>Local Municipality</b>	Tsantsabane Local Municipality
<b>Ward Number(s)</b>	1
<b>Farm name and number</b>	Erf 1
<b>Portion number</b>	0
<b>SG Code</b>	C03100030000000100000

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

**Current land-use zoning as per local municipality IDP/records:**

Agriculture
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In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required?  YES  NO✓



### 1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

**Alternative S1:**

Flat ✓	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5 ✓	1:7,5 – 1:5	Steeper than 1:5
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**Alternative S2 (if any):**

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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**Alternative S3 (if any):**

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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### 2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 Ridgeline	<input type="checkbox"/>	2.4 Closed valley	<input type="checkbox"/>	2.7 Undulating plain / low hills	<input type="checkbox"/>
2.2 Plateau	<input type="checkbox"/>	2.5 Open valley	<input type="checkbox"/>	2.8 Dune	<input type="checkbox"/>
2.3 Side slope of hill/mountain	<input checked="" type="checkbox"/>	2.6 Plain	<input checked="" type="checkbox"/>	2.9 Seafront	<input type="checkbox"/>
2.10 At sea	<input type="checkbox"/>				<input type="checkbox"/>

### 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following?

	Alternative S1:	Alternative S2 (if any):	Alternative S3 (if any):	Alternative S1:	Alternative S2 (if any):	Alternative S3 (if any):
Shallow water table (less than 1.5m deep)	YES	NO	✓	YES	NO	NO
Dolomite, sinkhole or doline areas	YES	NO	✓	YES	NO	NO
Seasonally wet soils (often close to water bodies)	YES	NO	✓	YES	NO	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO	✓	YES	NO	NO
Dispersive soils (soils that dissolve in water)	YES	NO	✓	YES	NO	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO	✓	YES	NO	NO
Any other unstable soil or geological feature	YES	NO	✓	YES	NO	NO
An area sensitive to erosion	YES	NO	✓	YES	NO	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project

BASIC ASSESSMENT REPORT

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information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

**4. GROUND COVER**

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition <sup>E</sup>	<b>Natural veld with scattered aliens<sup>E</sup></b> ✓	Natural veld with heavy alien infestation <sup>E</sup>	Veld dominated by alien species <sup>E</sup>	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an “<sup>E</sup>” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

**5. SURFACE WATER**

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	YES	NO ✓	UNSURE
Non-Perennial River	YES	NO ✓	UNSURE
Permanent Wetland	YES	NO ✓	UNSURE
Seasonal Wetland	YES	NO ✓	UNSURE
Artificial Wetland	YES	NO ✓	UNSURE
Estuarine / Lagoonal wetland	YES	NO ✓	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

<b>N/A</b>

## 6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

<b>Natural area</b> ✓	<b>Dam or reservoir</b> ✓	Polo fields
Low density residential	Hospital/medical centre	Filling station <sup>H</sup>
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential <sup>A</sup>	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant <sup>A</sup>	Nature conservation area
Medium industrial <sup>AN</sup>	Train station or shunting yard <sup>N</sup>	<b>Mountain, koppie or ridge</b> ✓
Heavy industrial <sup>AN</sup>	Railway line <sup>N</sup>	Museum
Power station	Major road (4 lanes or more) <sup>N</sup>	Historical building
Office/consulting room	Airport <sup>N</sup>	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam <sup>A</sup>	Sport facilities	<b>Archaeological site</b> ✓
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

If any of the boxes marked with an "N" are ticked, how this impact will / be impacted upon by the proposed activity? Specify and explain:

N/A

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	YES✓	NO
Core area of a protected area?	YES	NO✓
Buffer area of a protected area?	YES	NO✓
Planned expansion area of an existing protected area?	YES	NO✓
Existing offset area associated with a previous Environmental Authorisation?	YES	NO✓
Buffer area of the SKA?	YES	NO✓

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

**7. CULTURAL/HISTORICAL FEATURES**

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:	YES	NO✓
	Uncertain	

**N/A**

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

**A Phase 1 Heritage Impact Assessment was undertaken and is included in Appendix D.**

**The findings of the specialist are in summary:**

**Palaeontology**

**The area is underlain by palaeontologically significant carbonate rocks of the ~205 Ga old Cambellrand Subgroup. Small, isolated and horizontally exposed dolomite exposures were observed, but revealed no visible stromatolite structures. Excavations into fresh dolomites may however affect intact stromatolitic structures and associated micro-fossil-bearing strata.**

**Archaeology**

**There were no indications of in situ Stone Age archaeological material, rock engravings, graves, stonewalled structures nor historically significant buildings older than 60 years. The pipeline footprint in general is regarded as of low archaeological significance and is assigned a rating of Generally Protected C (GP.C).**

**Cultural Landscape**

**The ancient mining site at Blinkklipkop (Gatkoppies) is located approximately 250m due east of the reservoir and will not be impacted by the proposed pipeline installation.**

Will any building or structure older than 60 years be affected in any way?	YES	NO✓
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO✓

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

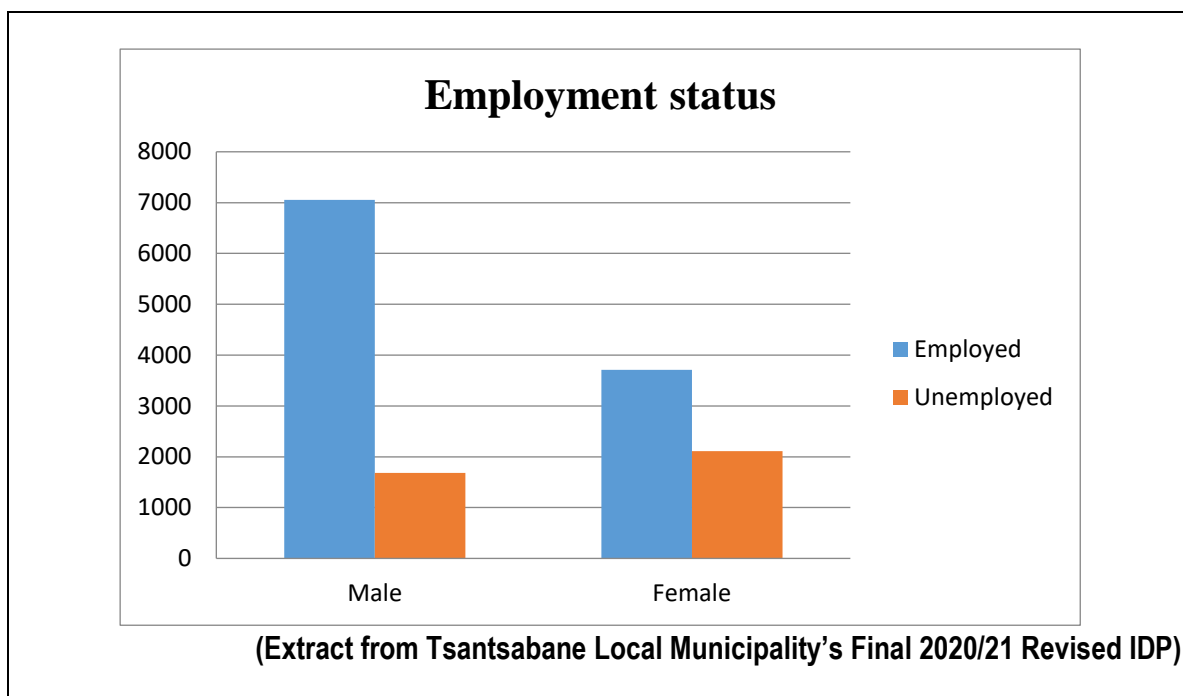
**8. SOCIO-ECONOMIC CHARACTER**

**a) Local Municipality**

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

**“According to the STATSA unemployment figure has drastically reduced from 4 466 in 2001 to 3 795 in 2011 this shows a decrease of 15%. Employment has increased by 69% in 2011, this clearly indicates that there are more people working in 2011 than in 2001.”**



Economic profile of local municipality:

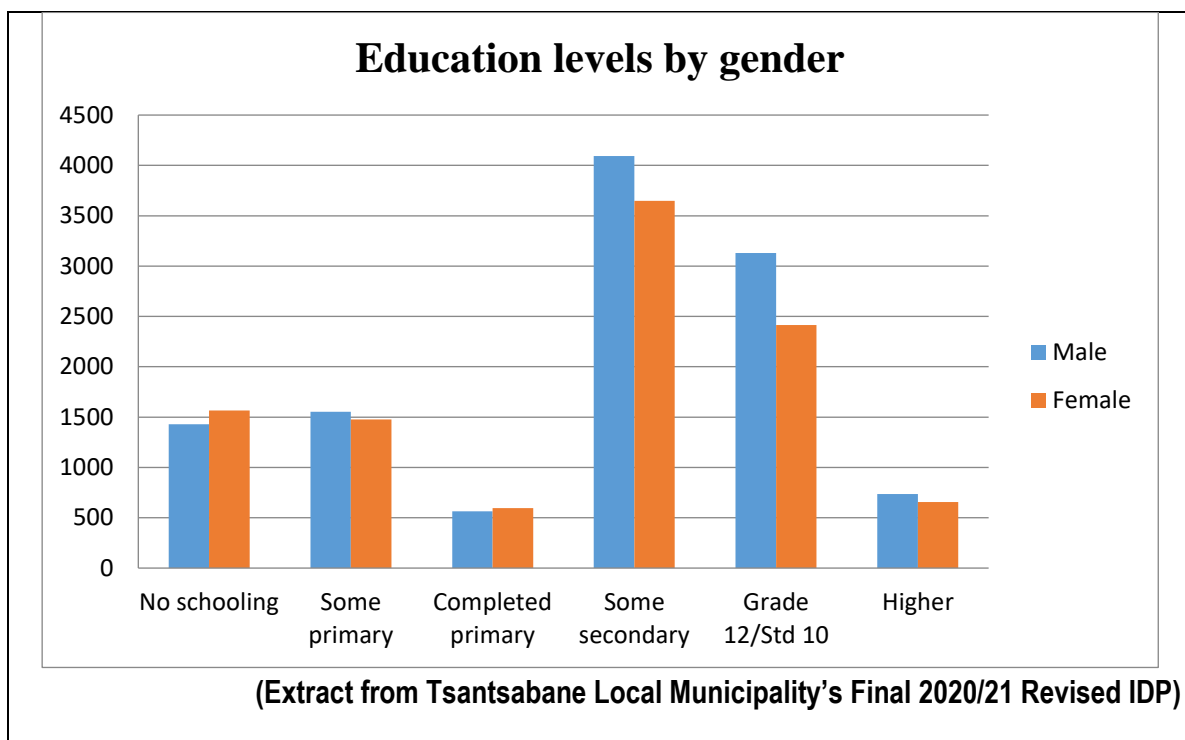
**Tsantsabane Local Municipality is situated in the ZFM District Municipality and covers geographic area of 5 887km<sup>2</sup>. It comprises Postmasburg as the main town and includes the surrounding settlements and established townships.**

**According to the Tsantsabane Local Municipality's Final 2020/21 Revised IDP, mining is the single biggest contributor of all industries to the GDP. Other areas of economic investment and development potential for the Tsantsabane municipal area include agriculture, manufacturing, utilities and construction, wholesale and retail trade, and government / community services (Tsantsabane SDF, 2015, as sourced by the IDP, 2020/2021).**

Level of education:

**According to the Tsantsabane Local Municipality's Final 2020/21 revised IDP:**

**"The statistics indicate that although a high number of students enrolling for primary school a very low number of students complete grade 12. This has resulted in a very low probability for employment. Only 5% of those who enrolled for grade 1 make it into tertiary. Less than 15% of the population has a tertiary qualification or have completed Grade 12. It must, however, be mentioned that the education level is affected negatively by the urbanization process, in the past since it mostly involves matriculates and those with a better qualification, due to the local lack of job opportunities. This can also be attributed to the fact that the nearest University of Technology (Central University of Technology, in Bloemfontein) is almost 400km away and the Sol Plaatjie University has recently started a limited offering of some courses. Males seems to be doing much better when it comes to education levels, as more men have some secondary education, grade 12 and higher education than their female counterparts."**



**b) Socio-economic value of the activity**

What is the expected capital value of the activity on completion?	<b>R 23.7 million</b>
What is the expected yearly income that will be generated by or as a result of the activity?	<b>R 35 000 / day</b>
Will the activity contribute to service infrastructure?	YES ✓      NO
Is the activity a public amenity?	YES      NO ✓
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	<b>30</b>
What is the expected value of the employment opportunities during the development and construction phase?	<b>R 2 092 000</b>
What percentage of this will accrue to previously disadvantaged individuals?	<b>100%</b>
How many permanent new employment opportunities will be created during the operational phase of the activity?	<b>0</b>
What is the expected current value of the employment opportunities during the first 10 years?	<b>R 0</b>
What percentage of this will accrue to previously disadvantaged individuals?	<b>% N/A</b>

**9. BIODIVERSITY**

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult <http://bgis.sanbi.org> or [BGIShelp@sanbi.org](mailto:BGIShelp@sanbi.org). Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information

(including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

- a) **Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)**

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
<b>Critical Biodiversity Area (CBA)</b> ✓	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	The proposed pipeline route falls within a CBA1 because it falls within the catchment of the Groenwaterspruit, which is listed as a National Freshwater Ecosystem Priority Area (NFEPA).

- b) **Indicate and describe the habitat condition on site**

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	%	
<b>Near Natural (includes areas with low to moderate level of alien invasive plants)</b>	<b>60%</b>	The natural vegetation type of the area is Kuruman Thornveld (listed of being Least Concern in terms of conservation value).
<b>Degraded (includes areas heavily invaded by alien plants)</b>	<b>40%</b>	Although the pipeline route still consists of natural vegetation, it is quite substantially degraded by heavy and sustained communal overgrazing and browsing. Exotic weeds have become more prominent due to the overgrazing.
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	%	

c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
- (ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		Aquatic Ecosystems						
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
	Endangered							
	Vulnerable	YES	NO ✓	UNSURE	YES	NO ✓	YES	NO ✓
	Least Threatened ✓							

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

The vegetation type of the area is Kuruman Thornveld (SVk 9) (Mucina & Rutherford, 2006), which is not considered to be of high conservation value and is listed as being of Least Concern (LC).

The proposed pipeline site does however fall with a Critical Biodiversity Area 1 (CBA 1), due to the area being within the catchment of the Groenwaterspruit, which is a listed National Freshwater Ecosystem Area (NFEPA). However, due to the nature and small footprint of the proposed pipeline, and that the Groenwaterspruit is located approximately 700m away, it is highly unlikely that the functioning of this watercourse will be compromised.

The area also forms part of the Southern Ghaap Plateau Strategic Water Source Area (SWSA).

Endangered or Red Listed species are absent from the site, but several protected tree (*Boscia albitrunca*, *Vachellia erioloba*) and plant species do occur along the pipeline route, namely *Pachypodium succulentum*, *Kalanchoe paniculata*, *Mestoklema tubersum*, *Ammocharis coranica*, *Harpagophytum procumbens*, *Oxalis lawsonii* and *Aloe hereroensis*.

Refer to the Ecological and Biodiversity Assessment in Appendix D for more detail.



## SECTION C: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT AND NOTICE

<b>Publication name</b>	Noordkaap Bulletin & Kathu Gazette	
<b>Date published</b>	8 April 2021 & 10 April 2021	
<b>Site notice position</b>	<b>Latitude</b>	<b>Longitude</b>
	28° 18' 0.35" S	23° 6' 37.82" E
	28° 18' 15.16" S	23° 6' 12.86" E
<b>Date placed</b>	8 April 2021	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

### 2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 733.

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 733

<b>Title, Name and Surname</b>	<b>Affiliation/ key stakeholder status</b>	<b>Contact details (tel number or e-mail address)</b>
Mr Ratha Timothy	NC Provincial Heritage Authority	079 0369695 rtimothy@nbkb.org.za
Cllr Estelle Poto	Ward Councillor	065 5373333 stellapoto18@gmail.com

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

### 3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

<b>Summary of main issues raised by I&amp;APs</b>	<b>Summary of response from EAP</b>
None at present.	

#### 4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

#### 5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
COGHSTA	Me. L. Tshilate	053 8309514		Lthilate@ncpg.gov.za	
DWS	Mr. A. Abrahams	053 8308800		abrahamsa@dws.gov.za	
SAHRA	Me. N. Higgitt	021 4624502		nhiggitt@sahra.org.za	

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

#### 6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

## SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014 and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

### 1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

Activity	Impact summary	Significance	Proposed mitigation
<b>Alternative 1 (preferred alternative)</b>			
Installation of a bulk water pipeline between the Postdene reservoir site and the Greenfields development in Postmasburg.	<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>Vegetation destruction</li> </ul>	<p>Medium (without mitigation) Low (with mitigation)</p>	<ul style="list-style-type: none"> <li>A suitably qualified ecologist or botanist should undertake a walkthrough survey of the pipeline route prior to construction to identify and locate all protected plants that will be affected by construction.</li> <li>Necessary permits need to be obtained for the two tree species (<i>Boscia albitrunca</i> and <i>Vachellia erioloba</i>) that require removal.</li> <li>All protected succulent and geophytic plants will transplant easily and need to be moved to an adjacent area where they will remain unaffected. These plants include: <i>Pachypodium succulentum</i>, <i>Kalanchoe paniculata</i>, <i>Mestoklema tuberosum</i>, <i>Ammocharis coranica</i>, <i>Harpagophytum procumbens</i>, <i>Oxalis</i></li> </ul>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p><i>lawsonii</i> and <i>Aloe hereroensis</i>.</p> <ul style="list-style-type: none"> <li>• The footprint of disturbance and clearance of vegetation must always be kept to a minimum.</li> <li>• When excavating trenches, the upper 30cm, or topsoil, should be removed together with the vegetation and stored on the site. These should then be replaced on top of the installed pipeline. Subsoil should be used as backfilling and not as top dressing. The soil surface should also be re-instated to the virgin soil level and not depressed or elevated as this will promote erosion and will hamper integration with the surrounding natural areas.</li> <li>• After construction has ceased, all construction materials should be removed from the area.</li> <li>• After construction of the pipeline, the area must be rehabilitated. This includes removal of all construction material. Excavated rock may not be left in heaps and must be removed or distributed evenly over the terrain to represent a natural environment. Compacted areas must be ripped. Construction roads not being utilised afterwards must be rehabilitated.</li> <li>• Adequate erosion monitoring and control is required.</li> <li>• Adequate monitoring of weed and invasive species establishment</li> </ul>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	<ul style="list-style-type: none"> <li>• Noise (only construction phase)</li> </ul>	<p style="text-align: center;">Low (with mitigation)</p>	<p>and their continued eradication must be maintained. Where category 1 and 2 weeds occur, they require removal by the property owner according to the Conservation of Agricultural Resources Act, No. 43 of 1983 and the NEM: Biodiversity Act, No. 10 of 2004.</p> <ul style="list-style-type: none"> <li>• Working hours must conform to local by-laws. Any deviation from this should be done in consultation with the local authorities.</li> <li>• Contractors will not be allowed to use sound amplification equipment on site, unless in emergency situations.</li> <li>• All equipment must be regularly and systematically checked, maintained and repaired (especially exhaust systems) as poorly maintained vehicles can generate disturbing and unnecessary noise.</li> <li>• Construction workers must be made aware of not creating unnecessary noise such as hooting and shouting.</li> <li>• Any complaints received regarding noise levels must be reported to the ECO.</li> </ul>
	<p><b>Indirect impacts:</b></p> <ul style="list-style-type: none"> <li>• Impact on terrestrial animals due to habitat destruction</li> </ul>	<p style="text-align: center;">Medium (without mitigation) Low (with mitigation)</p>	<ul style="list-style-type: none"> <li>• Hunting, capturing or trapping of mammals should be prevented by making this a punishable offence.</li> </ul>

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	<ul style="list-style-type: none"> <li>• Impact on heritage resources</li> <li>•</li> </ul>	<p>Medium (without mitigation) Low (with mitigation)</p>	<ul style="list-style-type: none"> <li>• Open trenches may act as pitfall traps to mammals, reptiles and amphibians and trenches should be monitored daily for trapped animals, which should be removed promptly.</li> <li>• In the event of poisonous snakes or other dangerous animals encountered on the site, an experienced and certified snake handler or zoologist must remove these animals from the site and re-locate them to a suitable area.</li> <li>• A professional palaeontologist needs to monitor excavations that exceed depths of 1m into unweathered, Camellrand Subgroup bedrock.</li> <li>• A professional palaeontologist needs to monitor exposures where large-scale excavations into unweathered / fresh sedimentary bedrock are to be conducted.</li> <li>• The palaeontologist must apply for a valid collection / removal permit from SAHRA if fossil material is found in the process.</li> <li>• All excavation activities must be restricted within the boundaries of the linear development footprint.</li> <li>• Should any historical or archaeological artefacts be unearthed, the ECO and Archaeologist must be notified.</li> </ul>
	<b>Cumulative impacts:</b>		

BASIC ASSESSMENT REPORT

<b>Activity</b>	<b>Impact summary</b>	<b>Significance</b>	<b>Proposed mitigation</b>
	<b>Direct impacts:</b>		
	<b>Indirect impacts:</b>		
	<b>Cumulative impacts:</b>		
<b>Alternative 2</b>			
	<b>Direct impacts:</b>		
	<b>Indirect impacts:</b>		
	<b>Cumulative impacts:</b>		
	<b>Direct impacts:</b>		
	<b>Indirect impacts:</b>		
	<b>Cumulative impacts:</b>		
<b>Alternative 3</b>			
	<b>Direct impacts:</b>		
	<b>Indirect impacts:</b>		
	<b>Cumulative impacts:</b>		
	<b>Direct impacts:</b>		
	<b>Indirect impacts:</b>		
	<b>Cumulative impacts:</b>		
<b>No-go option</b>			
No pipeline installation, site remains unchanged.	<b>Direct impacts:</b> • No job creation	Medium	
	<b>Indirect impacts:</b> • Insufficient water infrastructure	Medium	
	<b>Cumulative impacts:</b> • Shortage of water to Postmasburg	High	

A complete impact assessment in terms of Regulation 19(3) of GN 733 must be included as Appendix F.

## 2. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

### **Alternative A (preferred alternative)**

The proposed bulk water pipeline is required as part of the upgrading of water infrastructure in Postmasburg, which is necessary for current and future needs.

Impacts have been identified and mitigation recommendations made in conjunction with specialist input. Most impacts are anticipated during the construction phase, which is only expected to be seven months. Thereafter the site can be rehabilitated to as close as possible to the natural surrounding area.

It is therefore the opinion of the EAP, that, with appropriate monitoring during construction, there is no reason to refuse Environmental Authorisation for this project.

### **Alternative B**

### **Alternative C**

### **No-go alternative (compulsory)**

The no-go alternative, i.e. not installing the bulk water pipeline, has far more social and basic needs implications. There are also no major impacts anticipated. Through appropriate monitoring and mitigation measures proposed, there is no reason for the no-go alternative to be the preferred alternative.



**SECTION E. RECOMMENDATION OF PRACTITIONER**

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES✓	NO
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If “NO”, indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment).

N/A
-----

If “YES”, please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application.

- **A professional palaeontologist needs to monitor excavations that exceed depths of 1m into unweathered, Camellrand Subgroup bedrock and a collection / removal permit needs to be applied for if fossil material is found.**
  - **Blasting permits will need to be obtained if any blasting along the pipeline route is required.**
  - **Permits for the removal of the protected trees (*Boscia albitrunca*, *Vachellia erioloba*) and protected succulent and geophytes species (*Pachypodium succulentum*, *Kalanchoe paniculata*, *Mestoklema tuberosum*, *Ammocharis coranica*, *Harpagophytum procumbens*, *Oxalis lawsonii* and *Aloe hereroensis*) need to be obtained. The process of transplanting protected species should be undertaken and overseen by a suitable qualified person. Care should be taken where geophytic species are deciduous as they will be difficult to see.**
- Also refer to the EMPr for a more comprehensive list of mitigation measures.**

Is an EMPr attached?

YES✓	NO
------	----

The EMPr must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

\_\_\_\_\_  
NAME OF EAP

\_\_\_\_\_  
SIGNATURE OF EAP

\_\_\_\_\_  
DATE

**SECTION F: APPENDIXES**

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information