

APPLICATION FOR AUTHORISATION
IN TERMS OF THE
NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998
(ACT 107 OF 1998)

CONSULTATIVE BASIC ASSESSMENT REPORT



MOGALAKWENA MUNICIPALITY

PROJECT:

**PROPOSED BULK WATER SUPPLY PIPELINES LINKING
EXISTING PIPELINES FROM PIET-SE-KOP RESERVOIR TO
TSHAMAHANSI AND FROM WITRIVIER/PHAFOLA TO
BAKENBERG AS PART OF THE
MOGALAKWENA WATER MASTER PLAN**

**MOGALAKWENA LOCAL MUNICIPALITY
LIMPOPO PROVINCE**

PROPONENT:

MOGALAKWENA LOCAL MUNICIPALITY

Environmental Consultant:

TEKPLAN

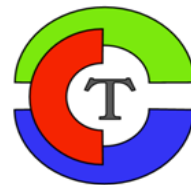
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JANUARY 2017



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

BASIC ASSESSMENT REPORT - EIA REGULATIONS, 2014

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.

File Reference Number:

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NEAS Reference Number:

(For official use only)

Date Received:

Due date for acknowledgement:

Due date for acceptance:

Due date for decision

Kindly note that:

1. The report must be compiled by an independent Environmental Assessment Practitioner.
2. 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.
3. Where applicable **tick** the boxes that are applicable in the report.
4. 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 Department of Economic Development, Environment and Tourism as the competent authority (Department) for assessing the application, it may result in the rejection of the application as provided for in the regulations.
5. An incomplete report may be returned to the applicant for revision.
6. Unless protected by law, all information in the report will become public information on receipt by the department. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

7. The Act means the National Environmental Management Act (No. 107 of 1998) as amended.
8. Regulations refer to Environmental Impact Assessment (EIA) Regulations of 2014.
9. The Department may require that for specified types of activities in defined situations only parts of this report need to be completed. No faxed or e-mailed reports will be accepted.
10. This application form must be handed in at the offices of the Department of Economic Development, Environment and Tourism:-

<p><u>Postal Address:</u></p> <p>Central Administration Office Environmental Impact Management P. O. Box 55464 POLOKWANE 0700</p>	<p><u>Physical Address:</u></p> <p>Central Administration Office Environmental Affairs Building Cnr Suid and Dorp Streets POLOKWANE 0699</p>
<p>Queries should be directed to the Central Administration Office: Environmental Impact Management:-</p> <p>For attention: Mr E. V. Maluleke</p> <p>Tel: (015) 290 7138/ (015) 290 7167</p> <p>Fax: (015) 295 5015</p> <p>Email: malulekeev@ledet.gov.za</p>	

View the Department's website at [http://www.ledet.gov.za/](http://www.ledet.gov.za) for the latest version of the documents.

SECTION A: ACTIVITY INFORMATION

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

YES

If YES, please complete the form entitled “Details of specialist and declaration of interest” or appointment of a specialist for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail¹:

Project description:

The following pipelines will be constructed as part of the Mogalakwena Water Master Plan:

1. Proposed 3,2km, 400mm diameter water pipeline, with a throughput of 163.15 l/s linking existing pipelines from the Piet-se-Kop reservoir to existing pipelines near Tshamahansi Village.
2. Proposed 16,6km, 600mm diameter water pipeline, with a throughput of 271.10l/s linking existing pipelines near Witrivier/Phafola to Bakenberg.

Location: The project is located in the Mogalakwena Local Municipality area, Waterberg District, Limpopo Province. The proposed routes will run through the following properties:

1. the Remainder of the farm Macalacaskop 243 KR and the Remainder of the farm Turfspruit 241 KR.
2. farm Gillimberg 861 LR, farm Drenthe 778 LR, farm Groningen 779 LR, farm Vriesland 781, farm Vliegekraal 783 LR and farm Hellem Bricksteen 761 LR.

The majority of pipelines will mainly be constructed next to existing roads, power lines and existing pipelines.

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.

¹ Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity 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 Department 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

See attached Appendix G – Assessment of Alternatives

Paragraphs 3 – 13 below should be completed for each alternative.

3. ACTIVITY POSITION

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 Hartebeeshoek 94 WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Latitude (S): **Longitude (E):**

Alternative:

Alternative S1² (preferred or only site alternative)

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

Alternative S2 (if any)

Alternative S3 (if any)

In the case of linear activities:

Alternative:

Latitude (S): **Longitude (E):**

Alternative S1 (preferred or only route alternative)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

°	'	"	°	'	"
°	'	"	°	'	"
°	'	"	°	'	"

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

°	'	"	°	'	"
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² "Alternative S.." refer to site alternatives.

- 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.

See attached Addendum A with co-ordinates of the activity.

4. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Alternative A1³ (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

or,

for linear activities:

Size of the activity:

	m ²
	m ²
	m ²

See attached Addendum A with the length of the activity and footprint of the activity.

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Length of the activity:

	m
	m
	m

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

Size of the site/servitude:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

	m ²
	m ²
	m ²

³ "Alternative A.." refer to activity, process, technology or other alternatives.

5. SITE ACCESS

Does ready access to the site exist?

YES	<input type="checkbox"/>
	m

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

Describe the type of access road planned:

The pipeline will mainly be constructed next to existing infrastructure. The access will mainly consist of a gravel track on the pipeline route.

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.

6. SITE OR 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:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers;
 - the 1:100 year flood line (where available or where it is required by Department of Water Affairs);
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.11 the positions from where photographs of the site were taken.

7. 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 form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 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.

11. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R1,2 billion
What is the expected yearly income that will be generated by or as a result of the activity?	R500 000.00
Will the activity contribute to service infrastructure?	YES
Is the activity a public amenity?	YES
How many new employment opportunities will be created in the development phase of the activity?	50+
What is the expected value of the employment opportunities during the development phase?	R1,8 million
What percentage of this will accrue to previously disadvantaged individuals?	90%
How many permanent new employment opportunities will be created during the operational phase of the activity?	5
What is the expected current value of the employment opportunities during the first 10 years?	R5,4 million
What percentage of this will accrue to previously disadvantaged individuals?	90%

9(b) Need and desirability of the activity

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

NEED:	
i.	Was the relevant municipality involved in the application? YES
ii.	Does the proposed land use fall within the municipal Integrated Development Plan? YES
iii.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:

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DESIRABILITY:			
i.	Does the proposed land use / development fit the surrounding area?	YES	
ii.	Does the proposed land use / development conform to the relevant structure plans, Spatial development Framework, Land Use Management Scheme, and planning visions for the area?	YES	
iii.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	
iv.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
v.	Will the proposed land use / development impact on the sense of place?		NO
vi.	Will the proposed land use / development set a precedent?		NO
vii.	Will any person's rights be affected by the proposed land use / development?		NO
viii.	Will the proposed land use / development compromise the "urban edge"?		NO
ix.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		

BENEFITS:			
i.	Will the land use / development have any benefits for society in general?	YES	
ii.	<p>Explain:</p> <p>The Mogalakwena Municipality is busy implementing water supply infrastructure to the villages North of the town Mokopane. This forms part of their 2020/2030 development plan. The pipelines will supply potable water to numerous villages and communities. These pipelines will draw-off from the bulk water supply pipelines that are an extension of the Olifants River Water Resources Development Project (ORWRDP).</p> <ol style="list-style-type: none"> 1. The proposed pipeline will create a link between the existing bulk water pipelines at the Piet-se-Kop Reservoir and the existing bulk pipelines supplying water to the Tshamahansi area. 2. The proposed pipeline will create a link between the existing bulk water pipeline located near Witrivier/Phafola to the Bakenberg area. <p>During construction of the pipelines, contractors have to spend 30% of the project value on local emerging enterprises.</p>		

iii.	Will the land use / development have any benefits for the local communities where it will be located?	YES	
iv.	Explain:		
	The project will ensure that sufficient water supply is available to people relying on the bulk pipe system of the municipality for water.		
	Local employment during the construction phase will also benefit local persons.		
	Temporary employment opportunities will also be created for the local community.		

10. 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:

Title of legislation, policy or guideline:	Administering authority:	Date:
National Water Act (Act 36 of 1998)	DWS	1998
National Heritage Resources Act (Act 25 of 1999)	SAHRA	1999
National Forest Act (Act 84 of 1998)	DAFF	1998
Limpopo Environmental Act (Act 84 of 1998)	Limpopo Department of Economic Development, Environment & Tourism	1998
National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Department of Environmental Affairs	2004
Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998)	Department of Environmental Affairs	2014

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

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

YES	
	144m ³

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

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

Solid waste (predominantly consisting of overburden such as vegetation, soil and rock) that is generated during construction will be stockpiled on the site – such waste will after completion of the construction period be graded flat. Any other excess waste (general domestic waste from site office, cement bags, rags, plastic bags, general waste from construction activities i.e. brushes, cutting disks, etc.) will be disposed of at the municipal landfill site at Mokopane.

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

Construction related waste will be disposed at the municipal landfill site at Mokopane.

Will the activity produce solid waste during its operational phase?
If yes, what estimated quantity will be produced per month?

<input checked="" type="checkbox"/>	NO
	m ³

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

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

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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 department 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 relevant legislation?

<input checked="" type="checkbox"/>	NO
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If yes, inform the department and request a change to an application for scoping and EIA.

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

<input checked="" type="checkbox"/>	NO
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If yes, then the applicant should consult with the Department to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

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

<input checked="" type="checkbox"/>	NO
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If yes, what estimated quantity will be produced per month?

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

<input checked="" type="checkbox"/>	NO
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If yes, the applicant should consult with the Department 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?

<input checked="" type="checkbox"/>	NO
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If yes, provide the particulars of the facility:

Facility name:

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Contact person:

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Postal address:

--

Postal code:

--

Telephone:

--

Cell:

--

E-mail:

Fax:

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

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

	NO
	NO

If yes, is it controlled by any legislation of any sphere of government?

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.

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

- **Dust will mainly result from the usage of earthmoving equipment (e.g. excavators, back-actors & TLB's) and heavy vehicles (e.g. trucks) moving into and out of the construction area.**
- **The national dust control regulations under the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), were published in Government Gazette 34307 under GN309 on 27 May 2011. In terms of these regulations;**
 - **No person may conduct any activity in such a way as to give rise to dust in such quantities and concentrations that -**
 - **The dust, or dust fall, has a detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage, or has contributed to the degradation of ambient air quality beyond the premises where it originates; or**
 - **The dust remains visible in the ambient air beyond the premises where it originates; or**
 - **600 mg/m²/day averaged over 30 days in residential and light commercial areas measured using reference method ASTM D1739; or**
 - **1200 mg/m²/day averaged over 30 days in areas other than residential and light commercial areas measured using reference method ASTM D1739.**

11(d) Generation of noise

Will the activity generate noise?

YES	
	NO

If yes, is it controlled by any legislation of any sphere of government?

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.

If no, describe the noise in terms of type and level:

- **Noise will mainly result from the usage of earthmoving equipment (e.g. excavators, back-actors & TLB's) and heavy vehicles (e.g. trucks) moving into and out of the construction area.**
- **The surrounding owners should be informed should any unusually noisy activities be undertaken.**

12. WATER USE

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

municipal

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:

Litres

Does the activity require a water use permit from the Department of Water Affairs?

NO

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

13. ENERGY EFFICIENCY

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

**The project comprises the construction of bulk water pipelines.
The pipeline in itself (during the operational phase) will not require large amounts of energy.
Energy efficiency will mainly be attained through the installation of the most energy efficient pumps available.**

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

**The project comprises the construction of bulk water pipelines.
The pipeline in itself (during the operational phase) will not require large amounts of energy.
Energy efficiency will mainly be attained through the installation of the most energy efficient pumps available. Alternative energy sources have not been taken into account.**

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. 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 C and indicate the area, which is covered by each copy No. on the Site Plan.

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

2. 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

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

Property description/physical address:

The proposed routes will run through the following properties:
1. the Remainder of the farm Macalacaskop 243 KR and the Remainder of the farm Turfspruit 241 KR.
2. farm Gillimberg 861 LR, farm Drenthe 778 LR, farm Groningen 779 LR, farm Vriesland 781, farm Vliegekraal 783 LR and farm Hellem Bricksteen 761 LR.

(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:

Various: Agriculture (Undetermined) and informal residential (Bakenberg)

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?

	NO
	NO

Must a building plan be submitted to the local authority?

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 indication of the project site position as well as the positions of the alternative sites, if any;
- 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, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20	1:20 – 1:15	
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Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	
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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		2.6 Plain	X
2.2 Plateau		2.7 Undulating plain / low hills	
2.3 Side slope of hill/mountain	X	2.8 Dune	
2.4 Closed valley		2.9 Seafront	
2.5 Open valley	X		

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

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 ^E	Natural veld with scattered aliens ^E		
	Cultivated land	Building or other structure	Bare soil

If any of the boxes marked with an “E” 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. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that does 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:

5.1 Natural area	X	5.22 School	X
5.2 Low density residential	X	5.23 Tertiary education facility	
5.3 Medium density residential	X	5.24 Church	X
5.4 High density residential		5.25 Old age home	
5.5 Medium industrial ^{AN}		5.26 Museum	
5.6 Office/consulting room		5.27 Historical building	
5.7 Military or police base/station/compound		5.28 Protected Area	
5.8 Spoil heap or slimes dam ^A		5.29 Sewage treatment plant ^A	
5.9 Light industrial		5.30 Train station or shunting yard ^N	
5.10 Heavy industrial ^{AN}		5.31 Railway line ^N	
5.11 Power station		5.32 Major road (4 lanes or more)	
5.12 Sport facilities	X	5.33 Airport ^N	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	X
5.15 Filling station ^H		5.36 Hospital/medical centre	
5.16 Landfill or waste treatment site		5.37 River, stream or wetland	X

5.17 Plantation		5.38 Nature conservation area	
5.18 Agriculture	X	5.39 Mountain, koppie or ridge	X
5.19 Archaeological site	X	5.40 Graveyard	X
5.20 Quarry, sand or borrow pit	X	5.41 River, stream or wetland	X
5.21 Dam or Reservoir		5.42 Other land uses (describe)	

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

There are no railway lines or airports within 500m radius of the project.

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

If YES, specify and explain:	
If NO, specify:	There are no industrial areas within 500m radius of the project.

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

If YES, specify and explain:	
If NO, specify:	No filling stations occur in a 500m radius of the project.

6. 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

YES

Archaeological or palaeontological sites, on or close (within 20m) to the site?

If YES, explain:

An Archaeological Impact Assessment was conducted of the proposed pipeline routes. Two alternatives for each route were assessed, referred to as the Bakenberg section and the Tshamahansi section. During the survey 23 heritage features were recorded for Alternative 1 (both Bakenberg and Tshamahansi sections). These consist of cemeteries, Late Iron Age stone walled sites and find spots, ruins, stone cairns of unknown purpose and an African church classified as living heritage. For Alternative two 13 features were recorded consisting of cemeteries, ephemeral stone walls and rectangular foundations, stone cairns of unknown purpose and an African church classified as living heritage. 9 of the 13 features were recorded on the Tshamahansi section and are also recorded on Alternative 1 (as part of the 23 heritage sites recorded for Alternative 1), as the two alternatives run parallel to each other 10 m apart. See Appendix D: Archaeological Impact Assessment Report for co-ordinates of the sites and features.

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is

such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:

The Archaeologist indicated the following recommendations are applicable if Alternative 1 is chosen:

Iron Age (Field No. 582, 583, 592, 595 and 603)

- 583 & 595. Preservation of the site *in situ* or mapping of the site and excavation before a destruction permit can be applied for.
- 582 & 592. No further action necessary. 592 is also well outside of the pipeline servitude and will not be directly impacted.
- 603 preservation of the site *in situ*. If this is not possible it must be determined if this is a grave through social consultation and Ground Penetrating Radar (GPR). If it is a grave relocation of the site adhering to all legal requirements.

Ruins (Field no. 588 and 605)

Although these sites are of low significance it must be kept in mind that sites like these might contain unmarked graves and it is recommended that these sites are preserved and demarcated with danger tape during the construction period. If these sites cannot be preserved the lack of graves on these sites should be confirmed during the social consultation process. If graves are present on the site these should be protected *in situ* and if this is not possible relocated with the required permits. A chance find procedure must be included in the EMP to monitor and mitigate accidental finds in these areas.

If the sites will be destructed the age of the structures must be determined and if the structures are older than 60 years the sites are protected by the Act and permits must be applied for prior to destruction.

Cemeteries (Field No. 585 – 591, 597, 600, 601, 602)

Although it is possible to relocate graves (adhering to all legal requirements) this must be seen as a last resort. It is rather recommended that the cemeteries are preserved *in situ* with a 20 meter buffer and the pipeline rerouted in these areas. These rerouted areas will have to be assessed by an archaeologist.

Stone Cairns (Field No. 584, 593, 598, and 599)

The cairns are of unknown purpose and it is recommended that these sites should be avoided. If this is not possible the possibility of these being graves should be investigated during the social consultation process and possibly GPR.

Living Heritage (Field No. 606)

The site is of significance to the local community and is classified as living heritage. The site will not be directly impacted by the line. It is recommended that the leaders of the church should be informed about the project.

The impact of alternative 1 is high on heritage resources and therefor Alternative 2 is the preferred option from a heritage point of view. The following recommendations apply to the additional sites identified in the impact area of Alternative 2.

Grave (Field No. 619)

It is recommended that the grave site should be demarcated and retained in situ.

Ruins (Field No. 620 and 622, 623)

Site 620 and 622 is part of one recent/ historical settlement complex. Graves in this area, outside the impact zone, date from as early as 1922 and therefore the settlement can be older than 60 years in which case additional destruction permits are required if impacted on and will require mitigation measures (mapping of the site, chance find procedures). The site could be of significance to the local community as they have direct ties to the site. It is recommended that site 620 – 622 should preferably be avoided altogether and that the pipeline should be realigned to ensure that the site is not impacted on. If this is not possible and the site will be impacted on the presence of unmarked graves and age of the settlement should be confirmed during the public participation process.

623 has been destroyed by agricultural activities to such an extent that it cannot contribute to our understanding of the heritage of the area and no in situ surface features occur. It is recommended that the presence of graves in the area should be confirmed during the public participation process and that a chance find procedure should be in place.

General

Several small stone heaps are found across the area that was not recorded (e.g. S23° 53' 51.1" E28° 51' 56.5"). It is recommended that through the social process the presence of unmarked and informal graves should be determined in the pipeline corridor and that these sites should be mitigated accordingly.

No cultural landscape elements were noted in the proposed corridor. Visual impacts to scenic routes and sense of place are also considered to be low as the line follows existing development servitudes and will be subsurface.

From a heritage perspective alternative 2 is the preferred option as it will have the least impact on recorded heritage sites and features. In order for the project to proceed several recommendations and mitigation measures will have to be implemented as outlined in Section 6 and 8 of the HIA report (subject to approval from SAHRA).

The possibility of the occurrence of subsurface finds cannot be excluded. Therefore if during construction any possible finds such as stone tool scatters, artefacts or bone and fossil remains are made, the operations must be stopped and a qualified archaeologist must be contacted for an assessment of the find and therefore chance find procedures should be put in place as part of the EMP.

Chance finds procedure:

This procedure applies to the developer's permanent employees, its subsidiaries, contractors and subcontractors, and service providers. The aim of this procedure is to establish monitoring and reporting procedures to ensure compliance with this policy and its associated procedures. Construction crews must be properly inducted to ensure they are fully aware of the procedures regarding chance finds as discussed below.

- If during the construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their

supervisor to the senior on-site manager.

- It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area.
- The senior on-site Manager will inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact a professional archaeologist for an assessment of the finds who will notify the SAHRA.

If the recommendations as made in the AIA report are adhered to (subject to approval from SAHRA) there is from an archaeological point of view no reason why the proposed project should not proceed.

The recommendations of the Heritage Assessment Practitioner have been taken into account and alternative route no. 2 will be the preferred route for the construction of the pipeline. The pipeline route has been diverted to exclude the heritage significant areas (Site 620 and 622 - recent/ historical settlement complex). The "Chance finds procedure" have also been included in the EMPr.

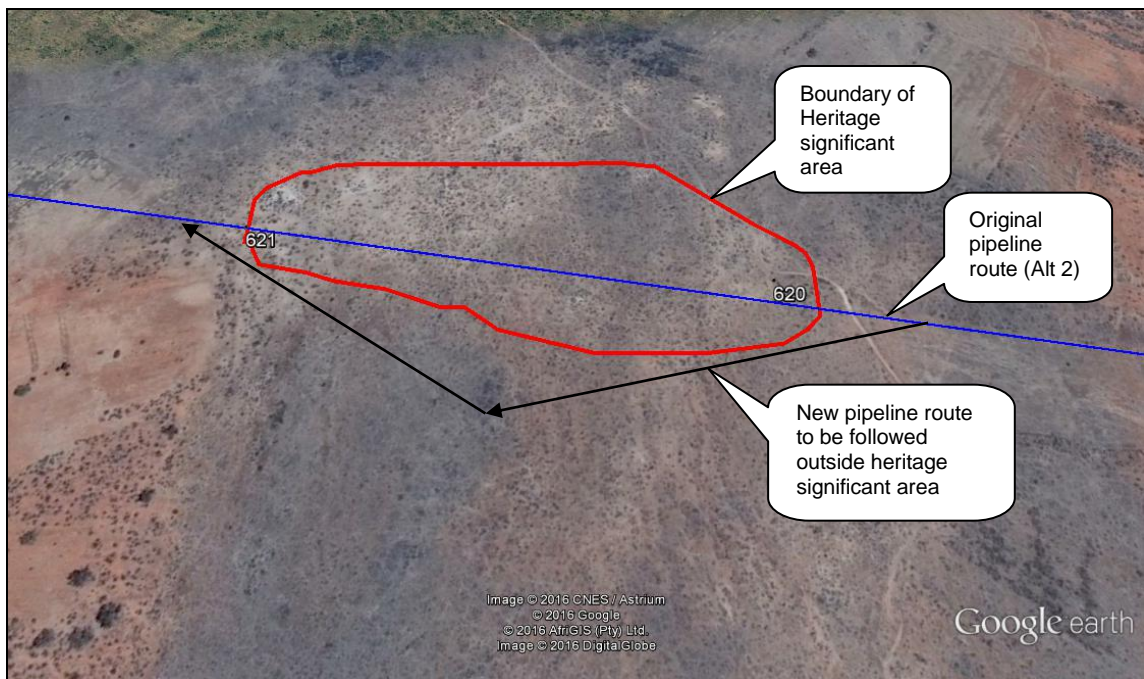


Figure 1: Pipeline rerouted to exclude the heritage significant areas (Site 620 and 622 - recent/ historical settlement complex).

Will any building or structure older than 60 years be affected in any way?

NO

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

NO

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the department) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the department;
- (c) placing an advertisement in—
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the department, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that the application has been submitted to the department in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (v) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the department in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these Regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the department to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in

these Regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable. **See Addendum B – Contact info for stakeholders and relevant authorities.**

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

Name of Authority informed:	Comments received (Yes or No)
Mogalakwena Local Municipality	NO
Waterberg District Municipality	NO
Department of Water & Sanitation	NO
Department of Agriculture, Forests & Fisheries	NO
Department Rural Development & Land Reform	NO
Regional Land Claims Commission	NO
Department of Sports, Arts & Culture (LIHRA)	NO
South African Heritage Resource Agency (SAHRA)	NO
Roads Agency Limpopo	NO
Limpopo Department of Public Works, Roads and Infrastructure	NO
Eskom Holdings Ltd	YES
Mokopane Traditional Council	NO
Mapela Traditional Council	NO
Bakenberg Traditional Council	YES
Bohwa Bja Rena Communal Property Trust	NO

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the department.

Proof of any such agreement must be provided, where applicable.

Has any comment been received from stakeholders?

YES	
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If “YES”, briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

No.	Stakeholders	Comments
1.	Eskom Distribution Limpopo	<ul style="list-style-type: none">○ Mr. Xander Neethling registered as an Interested and Affected Party.○ He has an interest with regard to impacts of the proposed water supply pipelines on existing and future Eskom networks.○ He is concerned what the impacts would be with regard to the encroachment of the proposed water supply pipelines on the existing and future Eskom networks.
2.	Bakenberg Traditional Council	<ul style="list-style-type: none">○ Mr. L.P. Langa (Bakenberg Traditional Council) indicated that their main interest in the matter is the provision of clean and adequate water to the Bakenberg Community.○ They support the project and that it should be implemented swiftly and without delay.○ He also indicated that Mr. M.P. Mashala and M.P. Tjatje be included as role-players in the EIA process.

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. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

See issues listed above.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure E):

Copies of this Draft Basic Assessment Report was send the following Interested and Affected Parties to comment on:

- **Department of Agriculture, Forestry and Fisheries**

- Department of Water & Sanitation
- Mogalakwena Local Municipality
- Waterberg District Municipality
- SAHRA
- LIHRA
- Department of Rural Development and Land Reform
- Eskom (Mr. Xander Neethling)
- Bakenberg Traditional Council
- Mapela Traditional Council
- Mokopane Traditional Council
- Mr. M.P. Mashala
- M.P. Tjatje

Any comments received will be included in the Final Basic Assessment Report.

2. 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

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) 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.

Alternative (preferred alternative)

See enclosed separate document setting out the potential direct, indirect and cumulative property/activity/design/technology/operational/alternative related impacts as well as the proposed management of impacts and mitigation.

The document is attached as Appendix G: Impact Assessment and Proposed Mitigation Measures.

3. 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)

- Alternative 2 is the preferred alternative as it will have the least impact on the environment (specifically relating to heritage resources and is also located further away from sensitive ecological features i.e. rocky outcrops)
- An Environmental Control Officer should be appointed to oversee the construction phase.
- In conclusion it can be stated that several negative (and positive) impacts/effects can potentially arise from the proposed water supply pipelines.
- These can however be mitigated through the implementation of a number of mitigation measures.
- The proposed development possesses the potential to have a negative impact on the natural & cultural environment (if appropriate mitigatory measures are not implemented).
- It is of vital importance that the proponent takes note of the recommendations contained in this document in order that it can be included into the contracts of the parties that will be responsible for construction.

No-go alternative (compulsory)

The Department of Economic Development, Environment and Tourism stresses the consideration of the “no development/no-action” option in cases where a proposed development is envisaged to have significant negative environmental impacts, or where such impacts cannot be mitigated against effectively or satisfactorily.

The IEM procedure suggests that the “no action” option should be considered as an alternative. This option is normally considered during a full EIA where significant negative environmental impacts are expected or if the proposed site is considered to be ecologically sensitive or unique.

Due to the limited extent of the proposed activity, the impact upon the environment will be minimal (after mitigation measures are implemented). The No-go alternative is thus not a feasible alternative as the negative impacts does not outweigh the positive impacts that will result by the installation of the water supply pipelines (See Assessment of Alternatives attached as Appendix G).

Alternative B

Alternative C

For more alternatives please continue as alternative D, E, etc.

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	
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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):

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 department in respect of the application:

During construction of pipeline the width of the area that is cleared for construction purposes, should be kept as narrow as possible, so as to minimise disturbances to the environment.

The surrounding environment must not be disturbed and the site must be cleared of all waste after construction.

See Appendix G - Impact Assessment and Proposed Mitigation Measures as well as attached Environmental Management Programme (Appendix F).

Is an EMPr attached?
The EMPr must be attached as Appendix F.

YES	
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SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

- **Ecological Assessment Report**
- **Heritage Impact Assessment Report**
- **Riparian Report for Stream Crossings**

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

- **Assessments of Alternatives**
- **Impact Assessment & Proposed Mitigation Measures**
- **Land Owner Consent letters**

SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, Danie Combrink, declare that I –

- (a) act as the independent environmental practitioner in this application;
- (b) do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014;
- (c) do not have and will not have a vested interest in the proposed activity proceeding;
- (d) have no, and will not engage in, conflicting interests in the undertaking of the activity;
- (e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- (f) will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- (g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the Department may be attached to the report without further amendment to the report;
- (h) will keep a register of all interested and affected parties that participated in a public participation process; and
- (i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.



Signature of the Environmental Assessment Practitioner:

TEKPLAN ENVIRONMENTAL

Name of company:

12 January 2017

Date: