



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF ECONOMIC DEVELOPMENT, ENVIRONMENT & TOURISM

BASIC ASSESSMENT REPORT - EIA REGULATIONS, 2010

Basic Assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

File Reference Number:

NEAS Reference Number:

Date Received:

Due date for acknowledgement:

Due date for acceptance:

Due date for decision

Kindly note that:

(For official use only)

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 2010.
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) 291 1315 / (015) 291 5640</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/> 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:

Objective of the project: Water supply pipelines and reservoirs to supply various villages in the Mogalakwena Municipality area with water. These supply pipelines will draw off from the existing bulk water supply.

Components of the project:

The proposed water supply infrastructure (pipelines) and storage reservoirs are for the following clusters of villages: Tshamahansi, Sekuruwe, Seema, Phafola, Maala Perekisi, Witrivier and Millennium Park.

Diameter sizes of the pipes will vary between 110mm to 400mm and the flow rates will be between 1.12 l/s and 84 l/s. Sizes of the reservoirs will vary between 60kl and 1.162MI. See Appendix A – Locality maps.

Activities being applied for:

For Notice 1 (R.544, 18 June 2010)

R. 544, 18 June 2010	9(i)	The construction of water supply pipelines exceeding 1000metres in length and with an internal diameter of 0.40 metres.
R. 544, 18 June 2010	11(xi)	The construction of infrastructure within a watercourse – the water supply pipelines will cross several streams in the Greater Mokopane area.
R. 544, 18 June 2010	18(i)	Excavation activities will occur across several streams during the pipe laying process.

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.

1.2 For Notice 3 (R.546, 18 June 2010)

2	(iii) Outside urban areas (ff) Areas within 5 kilometres from a protected area identified in terms of NEMPAA (Witvinger Nature Reserve)	The construction of reservoirs with capacities exceeding 250m ³ located in the village Tshamahansi. The reservoirs will be closer than 5km from the boundary of the Witvinger Nature Reserve.
14	(3) a(i) All areas outside urban areas.	Clearing of indigenous vegetation of an area larger than 5 hectares for the construction of water supply pipelines with a diameter larger than 0.36m.

Description of activities in the affected clusters:

Pipeline-stream crossings will be constructed in the following manner:

- Vegetation will be cleared.
- Trenching of the pipeline will be on the demarcated line through the banks and bed of the stream.
- The level of the trench will be adjusted (if needed).
- The pipes (uPVC) will be installed.
- The pipes will be reinforced with concrete to avoid damage to the pipeline if flooding should occur in the future.
- The trench will be backfilled.
- Reinforcement of the bed and banks of the stream will be made with additional measures like gabions, rip rap and soil berms.
- Rehabilitation of the banks with vegetation will prevent erosion.

Reservoirs in the Tshamahansi cluster will be constructed in the following manner:

- Vegetation will be cleared. A license to damage/remove Protected trees will be obtained if necessary. Aloes that will be affected during construction activities will be replanted in the adjacent area. The aloes can be replanted in such a manner as to screen the construction activities and ultimately the reservoir(s) e.g. Tshamahansi B.
- Access roads that need to be cleared should be designed to have a minimal impact on the direct surroundings.
- Materials needed for construction should not be brought onto site pre-maturely and should not be placed in sensitive areas.
- Rehabilitation of the construction area should be done to prevent erosion.

The 2.2 km long, 400mm diameter uPVC pipeline located on the South-Eastern edge of the village Tshamahansi will be constructed in the following manner:

- Vegetation will be cleared. A license to damage/remove Protected trees will be obtained if necessary. Aloes that will be affected during construction activities will be replanted in the adjacent area.
- Trenching of the pipeline will be on the demarcated line.
- The level of the trench will be adjusted (if needed).
- The pipes (uPVC) will be installed.
- The trench will be backfilled.
- Rehabilitation of the construction area with vegetation will prevent erosion.

Application to damage/destroy Protected trees was submitted to the Department Agriculture, Forestry and Fisheries on 5 November 2013. See Appendix G – Proof of application to damage/destroy protected trees

TSHAMAHANSI - CLUSTER

Dithokeng pipeline-stream crossing to Malepeteke

Dithokeng pipeline-stream crossing connect to Mokaba tank

Dithokeng dam wall pipeline-stream crossing to Magongoa A

Magongoa B - Elevated tank 305m³

Tshamahansi B - Steel tank 1.1 MI

Tshamahansi C - Steel tank 1 MI

Tshamahansi A - Steel tank 640m³

Pipeline - 400mm diameter, uPVC and 2.2km long that will connect to existing supply South of Tshamahansi village and turn Northward on the Eastern side of the Eskom line to connect to an existing reservoir located on the Eastern boundary of Tshamahansi village.

SEKURUWE- CLUSTER

Groot Sandsloot pipeline-stream crossing

Tributary of Groot Sandsloot pipeline-stream crossing Alt B

SEEMA- CLUSTER

Mogalakwena pipeline-stream crossing

PHAFOLA- CLUSTER

Thwathwe pipeline-stream crossing

Note - The construction activities for the clusters Witrivier, Millennium Park and Maala Perekisi will not include any pipeline-stream crossings, pipes with diameters larger than 360mm or reservoirs larger than 250m³ closer than 5km from a protected area identified in terms of NEMPAA. However during the construction of these clusters, the mitigation measures of the EMPr (See Appendix F) and any recommendations of the Environmental Authorisation will be adhered to.

(See attached Layout Plans – Appendix A).

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. 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 reasonable extent.

Site Alternative S2

Only one site alternative will be discussed:

SEKURUWE- CLUSTER

Tributary of Groot Sandsloot pipeline-stream crossing Alt A

- **The original route was planned to be located between the Southern side of the tar road (going to the mine) and the Eskom line. The pipeline would then cross the Tributary of the Groot Sandsloot stream (Alt A), turn south and continue parallel between the stream and the gravel road leading to the Machikiri village.**
- **It was decided to change the route to continue to run adjacent to the existing pipeline on the Eastern side of the N11 road and then to be placed next to the gravel road going directly to Machikiri village. The pipeline would then cross the Tributary of the Groot Sandsloot stream (Alt B). This will be the preferred alternative, and not Alt A.**

The following aspects contribute to the desirability of the location of the proposed pipeline route(s), pipeline-stream crossings and reservoirs above any other alternatives:

- **The routes of the pipelines were planned in such a way that it will run adjacent to existing pipeline routes in some sections. Some of the routes will run adjacent to the road servitudes as well as the Eskom servitudes.**
- **The section of the pipeline route from Sekuruwe village has been changed to run adjacent to the existing pipeline on the Eastern side of the N11 road. The initial layout of the pipeline route was planned to be on the Western side of the road. During the site surveys it became apparent that it would not be feasible since the area has been built up to the road servitude in the village Ga-Molekana.**
- **The pipeline-stream crossing at the Groot Sandsloot stream will be located in the construction footprint of the existing bulk pipeline. It will be installed 5m away from the existing pipeline.**
- **The majority of the pipeline-stream crossings will be located in disturbed areas for instance next to existing roads and near rural villages.**
- **The reservoir Tshamahansi B has also been placed in such a manner so as to not disturb the rock insignia placed on the summit of the hill by the ZCC-church (See Appendix - D: Heritage Impact Assessment).**
- **The other reservoirs are either located near existing reservoirs or in villages.**
- **The pipeline routes were planned in such a way that limited natural vegetation will be disturbed. The same applied to heritage sites.**

- An Ecological Assessment was conducted (See Appendix D: Ecological Assessment). The ecological sensitivity in the specific areas where the pipelines will run is low and the impact on these sites will be minimal if compared with possible alternative sites.
- Unnecessary stressing/impacting of the environment can be mitigated through the implementation of the recommendations contained in this document.

The impact on the environment will therefore be limited. Other alternative sites are thus not more feasible. Therefore application for exemption from having to assess alternative sites is herewith made.

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 WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

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

Alternative:

Alternative S1²

Tshamahansi

Dithokeng pipeline-stream crossing to Malepeteke
 Dithokeng pipeline-stream crossing connect to Mokaba tank
 Dithokeng dam wall pipeline-stream crossing to Magongoa A
 Magongoa B - Elevated tank 305m³
 Tshamahansi B - Steel tank 1.1 MI
 Tshamahansi C - Steel tank 1 MI
 Tshamahansi A - Steel tank 640m³

24°	4'	35.8"	28°	56'	39.9"
24°	4'	11.2"	28°	57'	28.3"
24°	3'	51.8"	28°	58'	49.6"
24°	3'	59.5"	28°	58'	19.8"
24°	4'	25.4"	28°	59'	5.5"
24°	5'	10.9"	28°	59'	55.4"
24°	4'	57.4"	28°	59'	2.5"

Sekuruwe

Groot Sandsloot pipeline-stream crossing
 Tributary of Groot Sandsloot pipeline-stream crossing Alt B

23°	59'	35.0"	28°	57'	37.3"
24°	00'	58.6"	28°	57'	44.4"

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

Phafola

Thwathwe pipeline-stream crossing

23°	55'	59.9"	28°	51'	18.7"
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Seema

Mogalakwena pipeline-stream crossing

24°	2'	37.3"	28°	50'	12.7"
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Alternative S2 (if any)

Sekuruwe

Tributary of Groot Sandsloot pipeline-stream crossing Alt A

24°	00'	21.7"	28°	56'	52.0"
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In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

Alternative S1 (preferred or only route alternative)

Tshamahansi – 400mm diameter

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

24°	5'	58.0"	28°	59'	32.1"
24°	5'	38.3"	28°	59'	50.0"
24°	5'	11.3"	28°	59'	53.7"

Alternative S2 (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.

SEE ENCLOSED ADDENDUM A AT THE BACK OF THIS REPORT FOR COORDINATES AND ALTERNATIVES

SEE APPENDIX A FOR MAPS OF ALTERNATIVE ROUTES.

4. PHYSICAL SIZE OF THE ACTIVITY

SEE ADDENDUM A for length/size and footprint areas of stream crossings, pipeline and reservoirs

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

Alternative:

Size of the activity:

Alternative A1³ (preferred activity alternative)

Tshamahansi

Dithokeng pipeline-stream crossing to Malepeteke	1800 m ²
Dithokeng pipeline-stream crossing connect to Mokaba tank	1200 m ²
Dithokeng dam wall pipeline-stream crossing to Magongoa A	2000 m ²
Magongoa B - Elevated tank 305m ³	50 m ²
Tshamahansi B - Steel tank 1.1 MI	100 m ²
Tshamahansi C - Steel tank 1 MI	100 m ²
Tshamahansi A - Steel tank 640m ³	81 m ²

Sekuruwe

Groot Sandsloot pipeline-stream crossing	1800 m ²
Tributary of Groot Sandsloot pipeline-stream crossing Alt B	1200 m ²

Phafola

Thwathwe pipeline-stream crossing	1200 m ²
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Seema

Mogalakwena pipeline-stream crossing	1600m ²
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Alternative A2 (if any)

Sekuruwe

Tributary of Groot Sandsloot pipeline-stream crossing Alt A	1200 m ²
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Alternative A3 (if any)

	m ²
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or,

for linear activities:

Length of the activity:

Alternative:

Alternative A1 (preferred activity alternative)

Tshamahansi	2153m
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Alternative A2	
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³ "Alternative A.." refer to activity, process, technology or other alternatives.

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

5. SITE ACCESS

Does ready access to the site exist?

YES	
	m

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

Describe the type of access road planned:

Existing tar and gravel tracks provide access to the reservoirs, pipeline-stream crossings and pipeline routes.

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.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

- What is the expected capital value of the activity on completion?
- What is the expected yearly income that will be generated by or as a result of the activity?
- Will the activity contribute to service infrastructure?
- Is the activity a public amenity?
- How many new employment opportunities will be created in the development phase of the activity?
- What is the expected value of the employment opportunities during the development phase?
- What percentage of this will accrue to previously disadvantaged individuals?
- How many permanent new employment opportunities will be created during the operational phase of the activity?

R76 million	
R	
YES	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	NO
158	
R6.72 million	
70%	
3	

What is the expected current value of the employment opportunities during the first 10 years?

R9.6 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:		

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.	Explain: 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. These pipeline routes 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). It is envisioned that water from the Flag Boshielo dam will be used. Until the pipeline between Mokopane and Flag Boshielo is constructed, borehole water from the Weenen well field will be utilized.	
iii.	Will the land use / development have any benefits for the local communities where it will be located?	YES
iv.	Explain: <ul style="list-style-type: none"> • The project will result in water provision to the villages to the west and the north of Mokopane town. • Local employment during the construction phase will also benefit local persons. 	

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:
Mineral and Petroleum Resources Development Act (Act 28 of 2002)	Department of Minerals & Energy	2002
National Water Act (Act 36 of 1998)	Department of Water Affairs	1998
National Heritage Resources Act (Act 25 of 1999)	Department of Arts & Culture (SAHRA)	1999
National Forest Act (Act 84 of 1998)	Department of Environmental Affairs	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) (TOPS - section 97)	Department of Environmental Affairs	2004
Conservation of Agricultural Resources Act (Act No. 43 of 1983)	Department of Agriculture	1983

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	
	50-100m 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. Excess waste will be disposed of at the municipal landfill site at Mokopane.

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

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

Will the activity produce solid waste during its operational phase?

	NO
	m ³

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

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

Where will the solid waste be disposed 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 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?

	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?

	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?

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

m ³	
	NO

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

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?

	NO
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If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
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:

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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	<input type="checkbox"/>
<input type="checkbox"/>	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, backactors & TLB's and heavy vehicles (e.g. trucks) moving into and out of the construction area.**
- **According to SANS 0328 – 2001, Methods for Environmental Noise Impact Assessments, the operation of a noise source in the proximity of a noise sensitive environment may have acoustical implications.**
- **In this case, the proposed pipeline route is mostly not located in Noise Sensitive Areas e.g. educational, residential, office and health care buildings and their surroundings, Churches and their surroundings, Auditoriums and concert halls and their surroundings, Recreational areas, and Nature reserves.**
- **Noise Control Regulations promulgated in terms of the Environment Conservation Act (73 of 1989) require, inter alia, that no person shall make, produce or cause a disturbing noise, or allow it to be made, produced or caused by any person, machine, device or apparatus or any combination thereof.**
- **In the above regulations, disturbing noise is defined as a noise level, which exceeds the acceptable noise rating level assigned to the noise sensitive environment.**
- **According to SANS 0103 -2004, it is highly probable that the noise is annoying, or otherwise intrusive to the community, or to a group of persons, if the rating level of the ambient noise under investigation exceeds the acceptable noise rating level of the applicable district.**
- **The acceptable noise rating level for a rural residential district according to SANS CODE OF PRACTICE 0103 –2004 is as follows;**
 - **Day time - 45dB**
 - **Night time - 35dB**

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:

0 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.

Note:

➤ **Water Use License applications will be submitted to the Department of Water Affairs in terms of the National Water Act, Act No 36 of 1998, for:**

Section 21(c) ~ Impeding or diverting the flow of water in a watercourse &

Section 21(i) Altering the bed, banks, course or characteristic of a watercourse

This will be done as soon as the final layouts of the pipeline routes are determined and Environmental Authorisation has been granted.

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 water pipelines and associated infrastructure. 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 water pipelines. The pipeline in itself (during the operational phase) will not require large amounts of energy. 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 B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No.

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?

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:

**REMAINDER OF THE FARM RIETFONTEIN 240 KR
REMAINDER OF THE FARM TURFSPRUIT 241 KR
PORTION 1 & 3 OF THE FARM TWEEFONTEIN 238 KR
REMAINDER OF THE FARM RIETFONTEIN 2 KS**

See Addendum A

(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: AGRICULTURAL & INFORMAL RESIDENTIAL

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?

Must a building plan be submitted to the local authority?

This project is being implemented by the Mogalakwena Municipality.

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	
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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		2.6 Plain	X
2.2 Plateau		2.7 Undulating plain / low hills	X
2.3 Side slope of hill/mountain		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)		NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas		NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES		YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES		YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)		NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)		NO	YES	NO	YES	NO
Any other unstable soil or geological feature		NO	YES	NO	YES	NO
An area sensitive to erosion	YES		YES	NO	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 with scattered aliens ^E		Veld dominated by alien species ^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	
5.2 Low density residential	X	5.23 Tertiary education facility	
5.3 Medium density residential	X	5.24 Church	
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		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		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	
5.21 Dam or Reservoir	X	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?

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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:	
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If NO, specify:	No industrial activities occur near the project
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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 Archaeological or palaeontological sites, on or close (within 20m) to the site? YES

If YES, explain: **A stone packed insignia of the ZCC-church was identified close to the location of the proposed location of the Tshamahansi Reservoir B.**

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: **One site with heritage value or significance was identified. A stone packed insignia of the ZCC-church was identified close to the location of the proposed location of the Tshamahansi Reservoir B. The construction of the reservoir should not have any impact on the insignia as the proposed location of the reservoir is not situated on the summit of the hill and is far enough not to be damaged during construction.**

However, it is important to demarcate the identified insignia with a 5 meter barrier during construction. The consultation process with the community and local church groups with regard to construction close to the site needs to be done before construction starts, in order to agree on the process to be followed with the community in case the site is damaged or if work needs to be done very close to this stone packed insignia.

The development is not expected to have any impact on heritage sites. As such no heritage reasons can be given for the development not to continue.

See Appendix D: Heritage Impact Assessment Report for co-ordinates of the sites that have an influence on the project.

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 B Copy No. **2**
(e.g. A):

Sekuruwe cluster

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

5. 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:

**REMAINDER AND PORTIONS 1 & 3 OF THE FARM ARMOEDE 823 LR
PORTION 9 OF THE FARM GILLIMBERG 861 LR (PREVIOUSLY PORTION 1 OF THE FARM BULTONGFONTEIN 239 KR)
REMAINDER OF THE FARM VAALKOP 819 LR (ALTERNATIVE)**

See Addendum A

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

[Empty box for listing properties]

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: AGRICULTURAL & INFORMAL RESIDENTIAL

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**

Must a building plan be submitted to the local authority? **NO**

This project is being implemented by the Mogalakwena Municipality.

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	
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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		2.6 Plain	X
2.2 Plateau		2.7 Undulating plain / low hills	X
2.3 Side slope of hill/mountain		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)	<input type="checkbox"/>	NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	<input type="checkbox"/>	NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	<input type="checkbox"/>	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	<input type="checkbox"/>	NO	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	<input type="checkbox"/>	NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	<input type="checkbox"/>	NO	YES	NO	YES	NO
Any other unstable soil or geological feature	<input type="checkbox"/>	NO	YES	NO	YES	NO
An area sensitive to erosion	YES	<input type="checkbox"/>	YES	NO	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).

<input type="checkbox"/>	Natural veld with scattered aliens ^E	<input type="checkbox"/>	Veld dominated by alien species ^E	<input type="checkbox"/>
<input type="checkbox"/>	Cultivated land	<input type="checkbox"/>	Building or other structure	<input type="checkbox"/>
<input type="checkbox"/>		<input type="checkbox"/>		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.

6. 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		5.22 School	
5.2 Low density residential	X	5.23 Tertiary education facility	
5.3 Medium density residential	X	5.24 Church	
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		5.33 Airport ^N	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
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	
5.19 Archaeological site		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	
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?

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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:	
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If NO, specify:	No industrial activities occur in a 500m radius of the project
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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 Archaeological or palaeontological sites, on or close (within 20m) to the site? NO

If YES, explain:

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 development is not expected to have any impact on heritage sites. As such no heritage reasons can be given for the development not to continue.

Refer to Appendix D Heritage Impact Assessment Report. Indicators of unmarked sub-surface sites that could be encountered are explained in the HIA Report.

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 B Copy No. **3**
(e.g. A):

Phafola cluster

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

7. 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:

REMAINDER OF THE FARM DRENTHE 778 LR
See Addendum A

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

[Empty box for list of properties]

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: AGRICULTURAL & INFORMAL RESIDENTIAL

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**
Must a building plan be submitted to the local authority? **NO**

This project is being implemented by the Mogalakwena Municipality.

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	
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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		2.6 Plain	X
2.2 Plateau		2.7 Undulating plain / low hills	
2.3 Side slope of hill/mountain		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)		NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas		NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES		YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES		YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)		NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)		NO	YES	NO	YES	NO
Any other unstable soil or geological feature		NO	YES	NO	YES	NO
An area sensitive to erosion	YES		YES	NO	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 with scattered aliens ^E		Veld dominated by alien species ^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.

7. 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	
5.2 Low density residential	X	5.23 Tertiary education facility	
5.3 Medium density residential	X	5.24 Church	
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		5.33 Airport ^N	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
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	
5.19 Archaeological site		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	
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?

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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:	
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If NO, specify:	No industrial activities occur in a 500m radius of the project
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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 Archaeological or palaeontological sites, on or close (within 20m) to the site? NO

If YES, explain:

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 development is not expected to have any impact on heritage sites. As such no heritage reasons can be given for the development not to continue.

See Appendix D: Heritage Impact Assessment Report for co-ordinates of the sites that have an influence on the project.

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 B Copy No. 4 Seema cluster
(e.g. A):

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

9. 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:

**PORTION 12 OF THE FARM STERKWATER 229 KR
REMAINDER OF THE FARM GEZOND 235 KR**

See Addendum A

(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: AGRICULTURAL & INFORMAL RESIDENTIAL

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?

This project is being implemented by the Mogalakwena Municipality.

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	
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Alternative S2 (if any):

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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		2.6 Plain	X
2.2 Plateau		2.7 Undulating plain / low hills	X
2.3 Side slope of hill/mountain		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)		NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas		NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES		YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES		YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)		NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)		NO	YES	NO	YES	NO
Any other unstable soil or geological feature		NO	YES	NO	YES	NO
An area sensitive to erosion	YES		YES	NO	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 with scattered aliens ^E		Veld dominated by alien species ^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.

8. 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	
5.2 Low density residential		5.23 Tertiary education facility	
5.3 Medium density residential		5.24 Church	
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		5.33 Airport ^N	
5.13 Golf course		5.34 Harbour	
5.14 Polo fields		5.35 Quarry, sand or borrow pit	
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	
5.19 Archaeological site		5.40 Graveyard	
5.20 Quarry, sand or borrow pit		5.41 River, stream or wetland	
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?

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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:	No industrial activities occur in a 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

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

NO

If YES, explain:

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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 development is not expected to have any impact on heritage sites. As such no heritage reasons can be given for the development not to continue.
See Appendix D: Heritage Impact Assessment Report for co-ordinates of the sites that have an influence on the project.

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

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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.

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.

<u>Name of Authority informed:</u>	<u>Comments received (Yes or No)</u>
Local municipality – Mogalakwena Municipality is the implementing agent of the project	NO
District Municipality	NO
Mapela Traditional Council	NO
Mokopane Traditional Council	NO
Machikiri Communal Property Association	NO
Koka Matlou Communal Property Association	YES
Bohwa Bja Rena Communal Property Trust	NO
Mogalakwena Mine	NO
Department of Water Affairs	YES
Limpopo Department of Economic Development, Environment & Tourism – Protected Areas	NO
Department Rural Development & Land Reform	YES
Regional Land Claims Commission	NO
South African National Roads Agency Limited (SANRAL)	YES

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Roads Agency Limpopo	YES
South African Heritage Resource Agency (SAHRA)	NO
Department of Sports, Arts & Culture (LIHRA)	NO
Department of Agriculture	YES

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	<input type="checkbox"/>
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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):

1. Department Rural Development & Land reform, Limpopo: Ms DM Phofele, acknowledged receipt of their letter and provided us with the necessary Land Use Rights information. The department supports the project on the condition that the Informal Land Rights Holders are consulted in terms of the IPILRA process.
2. Department of Water Affairs: Ms Mokgadi Maeko, registered as an Interested and Affected Party and was concerned about Water Use Authorization (application) and the impacts associated with the activity. She also commented that Environmental Authorisation must be submitted with the Water Use License application to the department of Water Affairs
3. Roads Agency Limpopo: Mr Phuti Montjane acknowledged receipt of their letter and have no objection to the project on condition that the applications and detailed plans for the installation of water pipelines alongside/crossing the provincial roads be submitted for consideration.
4. The South African National Road Agency SOC Limited registered as an Interested and Affected party. Approval of the project is supported subject to the submission of detailed design drawings before commencement of construction of the pipelines.
5. The Department of Agriculture – Waterberg District had the following comments on the Draft BAR:
 - The proposed activities will have minimal impact on agricultural activities
 - All listed protected plants should be conserved
 - Sowing of grass seeds should be incorporated in rehab phase
 - Compliance with NEMA should minimise pollution
 - Care must be taken to prevent animals from falling into the trenches
 - Establishment of vegetation will prevent erosion. This should be monitored
 - The pipelines should not prevent access to communal services for the residents or to grazing areas for animals

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, 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.

1. The following person registered as I&A party due to her interest in the water supply to her community:

- Ms Margaret Chauke

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):

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)

Direct impacts:

Indirect impacts:

Cumulative impacts:

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.
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)

- An environmental control officer should be appointed to oversee the construction phase.
- In conclusion it can be stated that several negative (and some positive) impacts/effects can potentially arise from the proposed development.
- 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 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. The No-go alternative is thus not a feasible alternative.

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):

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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:

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

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Impact assessment & Proposed mitigation measures

Appendix H: Application to damage/destroy protected trees

SECTION G: DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, **Theo E. Kotze** 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, 2010;
- (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:

14/02/2014

Date: