
ENVIRONMENTAL IMPACT ASSESSMENT (EIA): DRAFT BASIC ASSESSMENT REPORT

PROPOSED CONSTRUCTION OF A NEW RAW WATER PIPELINE WITHIN 32 METERS OF WATER COURSES, ZASTRON

Applicant: Mangaung Metro Municipality
DETEA Ref No: EMB/9(i)(ii)18(i)/14/48
MDA Ref No: 40670
Date: December 2014



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(For official use only)

File Reference Number:

Application Number:

Date Received:

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

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. 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. An incomplete report may be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner.
9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

SECTION A: ACTIVITY INFORMATION

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

YES

NO
X

If YES, please complete the form entitled "Details of specialist and declaration of interest"

for 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:

The proposed project entails the construction of a DN 300 mm steel pipe to transfer water from the Montaque Dam to the Kloof Dam and the Zastron Water Treatment Works. The proposed pipeline will be 3 m parallel to the existing servitude as the width of the servitude is insufficient to accommodate the proposed pipeline. The proposed pipeline will replace the current old raw water pipeline. The purpose of this environmental application is however only for the areas of the pipeline crossing a water course.

The stream (water course) crossings are located to the east of Zastron on the Farm Groenvlei 350 and Portion 4 of the Farm Roma 531. Please refer to **Annexure A** for the locality plan.

The activities associated with the development of the pipeline will include, but aren't limited to, the following:

- Clearance of vegetation.
- Trenching for pipeline.
- Placement of pipeline 1 m below the riverbed encased in concrete.
- Rehabilitation.

The activities being applied for as part of this Basic Assessment, includes the following;

"The construction of a pipeline and infrastructure for the bulk transportation of water within 32m of a watercourse."

- Activity 9(xi) (b) in terms of R544 of 18 June 2010.

"The construction of infrastructure or structures covering 50 m² or more where such construction occurs within a water course or within 32 m of a water course, measured from the edge of a water course, excluding where

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.

such construction will occur behind the development setback line."

- Activity 11(xi) in terms of R544 of 18 June 2010.

"The removal of soil, sand, pebbles or rock of more than 5m² from a water course."

- Activity 18(i) in terms of R544 of 18 June 2010.

The entire pipeline does not trigger an environmental authorisation because the pipe diameter is less than 0.36 m, with a throughput of less than 120 l/s.

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 competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

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

NOTE: Please take note of the description of the preferred as well as alternative:

Preferred Alternative:

The preferred pipeline route is proposed to connect Montagu Dam with the Kloof Dam and the Zastron water treatment works. The route will follow parallel to existing registered servitude. The servitude width is not sufficient for proposed pipeline. The route was proposed due to the ease of access to the pipeline servitude during and after construction. The proposed pipeline links up with existing bulk infrastructure. The topography is also suitable for the type of development.

Alternative 2: Locality

To provide water for the municipal area, the pipeline would have to be re-routed as an alternative (following a different course). The pipeline would still however have to cross the water courses to reach Zastron. This alternative is therefore not a

feasible alternative and will not be discussed in the BAR.

No-go option

The 'no-go' alternative will be considered throughout the assessment of the proposed project. It is not recommended to keep the area as status quo as the pipeline is to provide current and future water demands and service to Zastron.

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 and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Alternative:	Latitude (S):	Longitude (E):
Preferred Crossing 1	30°19'2.700"S	27°09'20.580"E
Preferred Crossing 2	30°18'43.690"S	27°06'53.700"E

NOTE:

The third stream crossing identified by the Floristic and Ecological Assessment (**Annexure D1**) does not form part of the pipeline route (the route passes south of the crossing). The fourth and fifth stream crossings also identified by the assessment is the existing inlet (at Kloof Dam) and outlet (at water treatment works). The new pipeline will connect to the existing infrastructure at the inlet and the outlet.

In the case of linear activities: Not Applicable

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

0	'	0	'
0	'	0	'
0	'	0	'

Alternative S2 (if any)

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

0	'	0	'
0	'	0	'
0	'	0	'

Alternative S3 (if any)

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

0	'	0	'
0	'	0	'
0	'	0	'

DRAFT BASIC ASSESSMENT REPORT ZASTRON PIPELINE CROSSING WATER COURSE

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.

4. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:	Size of the activity:
Preferred Alternative	0.1014 ha

or, for linear activities: **Not Applicable**

Alternative:	Length of the activity:
Alternative A1 (preferred activity alternative)	m
Alternative A2 (if any)	m
Alternative A3 (if any)	m

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

Alternative:	Size of the site/servitude:
Preferred Alternative	497.8 ha
Alternative 2: Layout	
Alternative 3	
Alternative 4	

5. SITE ACCESS

Does ready access to the site exist?	YES	NO
	X	
If NO, what is the distance over which a new access road will be built	m	

Describe the type of access road planned:

Access to the application property is available.

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 DWA);
 - 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

NOTE: These values are based on the complete pipeline.	
What is the expected capital value of the activity on completion?	R31 897 920
What is the expected yearly income that will be generated by or as a result of the activity?	N/A Replacement of existing pipes for service delivery.
Will the activity contribute to service infrastructure?	YES NO X
Is the activity a public amenity?	YES NO X
How many new employment opportunities will be created in the development phase of the activity?	92
What is the expected value of the employment opportunities during the development phase?	R2 175 800.00
What percentage of this will accrue to previously disadvantaged individuals?	82%
How many permanent new employment opportunities will be created during the operational phase of the activity?	N/A
What is the expected current value of the employment opportunities during the first 10 years?	N/A
What percentage of this will accrue to previously disadvantaged individuals?	N/A

9(b) Need and desirability of the activity

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

NEED:			
The proposed pipeline is required for service delivery in the area and ensures current and future water demands. It will transport raw water from the Montaque Dam to Kloof Dam as well as the Zastron water treatment works.			
The pipeline will thus provide a reliable supply of water. The provision of this basic service is likely to contribute towards an improved quality of life and indirectly assist the development potential of the town of Zastron.			
1.	Was the relevant provincial planning department involved in the application?	YES X	NO
2.	Does the proposed land use fall within the relevant provincial planning framework?	YES X	NO
3.	If the answer to questions 1 and / or 2 was NO, please provide further motivation /		

	explanation:
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DESIRABILITY:

The proposed activity will ensure adequate service delivery in Zastron with regards to water and sanitation. It also serves to ensure a healthy environment indirectly with the proper working of the water treatment works. Employment opportunities and capacity building are likely to be provided to local communities. Job opportunities will be created through the employment of local low category contractors.

1.	Does the proposed land use / development fit the surrounding area?	YES X	NO
2.	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	YES X	NO
3.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES X	NO
4.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
5.	Will the proposed land use / development impact on the sense of place?	YES	NO X
6.	Will the proposed land use / development set a precedent?	YES	NO X
7.	Will any person's rights be affected by the proposed land use / development?	YES	NO X
8.	Will the proposed land use / development compromise the "urban edge"?	YES	NO X
9.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		

BENEFITS:

1.	Will the land use / development have any benefits for society in general?	YES X	NO
2.	Explain:		
	Note: Necessary basic services provided to communities.		
3.	Will the land use / development have any benefits for the local communities where it will be located?	YES X	NO
4.	Explain:		
	Note: Necessary infrastructure provided to communities.		

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 Environmental Management Act (Act 107 of 1998)	Department of Environmental Affairs and Tourism	1998
National Water Act (Act 36 of 1998)	Department of Water Affairs	1998
National Heritage Resources Act (Act 25 of 1999)	South African Heritage Resources Agency	1999
Environmental Conservation Act (Act 73 of 1989)	DETEA	1989
National Environmental Management Biodiversity Act, 2004 (Act 10 of 2004)	DETEA	2004

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 X	NO
Unknown at present (m ³)	

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

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

Typical construction waste, for example rubble and general domestic waste is likely to be produced. Any excavated soil is proposed to be used for levelling of working areas. Rubble and general domestic waste is proposed to be temporarily stored in on-site waste receptacles and removed by the contractor on a regular basis. The contractor will be responsible for the disposal of construction waste / rubble. The waste will be transported and disposed of, by the contractor to an authorised landfill site. Furthermore the EMPr (refer to **Annexure F**) make recommendations with regard to best waste management practices.

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

The contractor will be responsible for the removal of construction waste from the collection area to an authorised landfill site in Zastron. Hazardous waste (if any) should be disposed of at an authorised hazardous landfill site such as Holfontein.

Will the activity produce solid waste during its operational phase?

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

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

N/A

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

N/A

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

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

YES	NO
	X

If yes, inform the competent authority 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?

YES	NO
	X

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

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

YES	NO
	X

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

m³

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

YES	NO
	X

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

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

YES	NO
	X

If yes, provide the particulars of the facility:

Facility name:	<input type="text"/>		
Contact person:	<input type="text"/>		
Postal address:	<input type="text"/>		
Postal code:	<input type="text"/>		
Telephone:	<input type="text"/>	Cell:	<input type="text"/>
E-mail:	<input type="text"/>	Fax:	<input type="text"/>

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

N/A

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES X	NO
YES	NO X

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:

Vehicular and dust emissions will be the only source of ambient emissions generated as a result of the proposed project. Some vehicular emissions will be present during the construction phase. There will also be the potential for dust generation during the construction phase. This may be the result of wind over exposed areas of cleared land. Dust can easily be prevented through the implementation of air pollution mitigation measures contained in the EMPr (refer to **Annexure F**). Construction activities will be limited to working hours.

11(d) Generation of noise

Will the activity generate noise?

YES X	NO
YES	NO X

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:

Nuisance noise will only be associated with the construction activities. Heavy vehicles will be equipped with silencers. A blasting permit will be obtained, if blasting activities is to be undertaken. In addition, construction activities will be limited to working hours.

12. WATER USE

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

municipal	water board	groundwater	river, stream, dam or lake	other	the activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

Unknown at present	
YES X	NO

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

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.

The proposed construction will occur within 32 m of water courses. This may require the alteration of beds / banks. A Water Use License application (in terms of Section 21) has been obtained from the Department of Water and Sanitation, which will be upgraded to include the crossing of the streams (refer to **Annexure G2** for current Water Use License).

13. ENERGY EFFICIENCY

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

No additional alternative energy sources are considered at this stage, but may be considered in the future.

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

No additional alternative energy sources are considered at this stage, but may be considered in the future.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

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

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

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

YES	NO
X	

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 Farm Groenvlei 350 and Portion 4 of the Farm Roma 531. Please refer to locality and site maps attached (**Annexure A**), the list of properties in **Annexure H1** and the landowner consent letters in **Annexure H2**.

(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:

Agriculture

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

Is a change of land-use or a consent use application required?

YES	NO X
YES	NO X

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 and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Preferred Alternative:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5 X	Steeper than 1:5
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NOTE:

Since the application is only for the water course crossings, these areas are relatively steep.

2. LOCATION IN LANDSCAPE

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

2.1 Ridgeline

2.2 Plateau

2.3 Side slope of hill/mountain

2.4 Closed valley

2.5 Open valley

2.6 Plain X

2.7 Undulating plain / low hills X

2.8 Dune

2.9 Seafront

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

Shallow water table (less than 1.5m deep)

YES	NO X
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Dolomite, sinkhole or doline areas

YES	NO X
-----	-----------------

Seasonally wet soils (often close to water bodies)

YES X	NO
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Unstable rocky slopes or steep slopes with loose soil

YES	NO X
-----	-----------------

Dispersive soils (soils that dissolve in water)

YES	NO X
-----	-----------------

Soils with high clay content (clay fraction more than 40%)

YES	NO X
-----	-----------------

Any other unstable soil or geological feature

YES	NO X
-----	-----------------

An area sensitive to erosion

YES X	NO
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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. GROUND COVER

Indicate the types of groundcover present on the site:

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

Natural veld - good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species^E X	Gardens
Sport field	Cultivated land X	Paved surface	Building or other structure	Bare soil

Summary of the Floristic and Ecological Assessment (complete report in Annexure D1):

Majority of the area has previously been ploughed or is still utilised for crop cultivation. These areas no longer forms part of the natural occurring vegetation types of the area. No endangered or rare species could be identified, but a protected bulb species, *Brunsvigia radulosa*, occurs sporadically along the route. Where this species will be affected by the pipeline it must be transplanted to adjacent areas. It is unlikely that some mammal species of conservational importance in the area will be directly affected by the installation of the pipeline due to the small footprint as long as hunting, capturing and trapping of animals is prohibited.

The first crossing (near the R726 tarred road) is dominated by sedge species and aquatic grasses. The stream does not contain an extensive floodplain. The pipeline will cross the stream where the historical pipeline is also installed.

The second crossing contains a floodplain but it is not extensive and is approximately 50 m in width. The pipeline will cross the stream at the point where the historical pipeline is installed.

NOTE:

The third stream crossing identified by the Floristic and Ecological Assessment does not form part of the pipeline route (the route passes south of the crossing). The fourth and fifth stream crossings also identified by the assessment is the existing inlet (at Kloof Dam) and outlet (at water treatment works). The new pipeline will connect to the existing infrastructure.

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

- 5.38 Historical building
- 5.39 Protected Area
- 5.40 Graveyard
- 5.41 Archaeological site
- 5.42 Other land uses (describe)

Agriculture:

The area consists of previously ploughed or still utilised ploughed lands for crop cultivation.

River, stream or wetland:

The pipeline will be installed along the existing pipeline route. The site has therefore been disturbed previously although it has been largely rehabilitated.

NOTE:

Refer to Floristic and Ecological Assessment in **Annexure D2**.

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

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 YES, specify:

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 YES, specify:

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	NO X
None (refer to Heritage Exemption Letter in Annexure D2)	

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:

Summary of the Exemption Letter (attached in Annexure D2): The route is exclusively located on previously disturbed agricultural land. Impact will primarily occur on geologically recent superficial deposits and given the linear nature of the footprint, potential negative impact on subsurface sediments is expected to be low. It is therefore recommended that the proposed development is exempted from a Phase 1 Heritage Impact Assessment.
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Will any building or structure older than 60 years be affected in any way?	YES	NO X
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO X

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 competent authority) 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 competent authority;
- (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 metropolitan or 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 competent authority, 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 competent authority 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
 - (iv) 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 competent authority 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 the EIA 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 competent authority 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 the EIA 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.

List of authorities informed:

- Municipal Manager: Mohokare Local Municipality
- Municipal Ward Councillor, Ward Code: 41603001, Cllr TS Khasake
- Department of Agriculture
- South African Heritage Resources Agency (SAHRA): Mr A Salomon
- Provincial Manager, Free State: South African Heritage Resource Agency (FSHRA)
- Department of Water and Sanitation

List of authorities from whom comments have been received:

No comments received to date.
 Please note that all comments to be received during the public participation process will be included in the final BAR.

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

Has any comment been received from stakeholders?

YES	NO X
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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 comments received to date.
 Please note that all comments to be received during the public participation process will be included in the final BAR.

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.

No comments received to date.
Please note that all comments to be received during the public participation process will be included in the final BAR.

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):

No response to comments to date as no comments was received to date.
Please note that all comments to be received during the public participation process will be included in the final BAR.

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.

Preferred Alternative		
	Potential Impacts	Recommended Mitigation Measures
Planning and Design	<p>Direct Impacts</p> <ul style="list-style-type: none"> • None <p>Indirect Impacts</p> <ul style="list-style-type: none"> • None <p>Cumulative Impacts</p> <ul style="list-style-type: none"> • None <p>No-go alternative</p> <ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • No environmental mitigation measures are required during the planning phase on the proposed site. • The following were however taken into consideration during the construction / operational phase: <ul style="list-style-type: none"> – Erosion control measures – Removal of vegetation – Protected vegetation – Removal of topsoil – Flooding.

Preferred Alternative		
	Potential Impacts	Recommended Mitigation Measures
Construction	<p>Direct Impacts</p> <ul style="list-style-type: none"> • Destruction of vegetation. • Noise elevation due to construction activities. • Temporary elevation of noise levels. • Temporary increase in dust. • Erosion. <p>Indirect Impacts</p> <ul style="list-style-type: none"> • Potential erosion of exposed soil. • Establishment of alien / invader vegetation on disturbed areas. • Possible dumping of construction rubble and general waste on site. • Spillage of material to be utilised during the construction phase as well as untreated sewage to the surrounding environment. • Surface- and groundwater pollution due to spillage of potential contaminants. • Impact on stream flow. <p>Cumulative Impacts</p> <ul style="list-style-type: none"> • None. <p>No-go alternative</p>	<ul style="list-style-type: none"> • Vegetation clearance will be limited to the development area. • Establishment of extensive alien species will be monitored. • No hunting, harming or capturing of any of the animals on the site must be allowed. This must be enforced during construction as well as the occupation of the residences. • Visual inspections for the occurrence of erosion should be undertaken on a weekly basis. • Speed limit will be enforced on the construction vehicles and these vehicles will only make use of designated roads / pathways. • Dust control measures will be implemented if nuisance dust generation occurs during the construction period. • No waste (general / construction / potential hazardous / etc.) may be dumped in the veld. • Covered receptacles will be available on site for the temporary disposal of waste. • Waste will be removed from site and disposed of at an authorised landfill site. • Disturbance on streams must be kept to a minimum. • No littering is allowed. • All litter must be removed from the site.

Preferred Alternative		
	Potential Impacts	Recommended Mitigation Measures
	<ul style="list-style-type: none"> No opportunity for development and employment opportunities. There is a chance of the current pipeline starting to leak. Lack of sufficient basic services to the community. 	<ul style="list-style-type: none"> Installation of the pipeline through seasonal streams should occur during winter months (not during summer rains) where possible. Free flow of the stream should be able to take place at any time during construction. Construction time and footprint in the streams must be kept to a minimum. Storm water measures will be implemented in order to manage storm water and curb erosion. Ensure Department of Water and Sanitation approval is obtained before construction commences. Gabions will be packed such that the top part of the gabion mattress is at the same level as the river bed in order to allow the natural flow of the river.
Operational	<p>Direct Impacts</p> <ul style="list-style-type: none"> Changing natural flow of river. <p>Cumulative Impacts</p> <ul style="list-style-type: none"> Establishment of alien / invader species due to previous disturbance. The deterioration of the infrastructure in the long term. 	<ul style="list-style-type: none"> Maintenance and repair will be undertaken on the pipeline and associated infrastructure, when necessary. Gabions will be packed such that the top part of the gabion mattress is at the same level as the river bed in order to allow the natural flow of the river. Establishment of alien vegetation will be monitored and alien species will be removed by hand or by an approved chemical before gestation thereof.

Preferred Alternative		
	Potential Impacts	Recommended Mitigation Measures
		<ul style="list-style-type: none"> • Proper erosion mitigation measures should be implemented.
Decommissioning and Closure	<ul style="list-style-type: none"> • Activities associated with the decommissioning phase will be limited to the rehabilitation of areas disturbed during the construction phase. All disturbed areas will be rehabilitated. • It is not anticipated that the proposed project will cease in the nearby future. However, if full decommissioning is decided upon, a rehabilitation plan will be developed and submitted for approval. The end-use of the area will be kept in mind during the compilation of the rehabilitation plan. 	
	<p>Direct Impacts</p> <ul style="list-style-type: none"> • No impact. <p>Indirect Impacts</p> <ul style="list-style-type: none"> • Potential erosion of exposed soil. • Potential dumping of waste on site. • Potential establishment of alien vegetation in rehabilitated areas. <p>Cumulative Impacts</p> <ul style="list-style-type: none"> • None. <p>No-go alternative</p> <ul style="list-style-type: none"> • The 'no-go' alternative will not result in any immediate impacts, but the current old pipeline might start to leak. 	<ul style="list-style-type: none"> • All temporary infrastructure related to the construction phase will be removed from site. • Excavated rocks may not be left in heaps and must be removed or distributed evenly over the terrain to represent natural environment. • Compacted areas must be ripped. • Roads not utilised afterwards must be rehabilitated. • Temporary concrete surfaces will be removed and compacted areas ripped. • The establishment of natural occurring vegetation will be encouraged. • No waste will be dumped on site and any waste occurring on site will be removed and disposed of according to best practices. • All spillages will be treated and disposed of at an authorised facility. • Establishment of extensive alien species will be monitored. Problematic weeds must be eradicated where established.

Preferred Alternative	
Potential Impacts	Recommended Mitigation Measures
	<ul style="list-style-type: none"> • Route must be inspected for erosion due to construction. If any areas are identified it must be remedied. • A rehabilitation plan will be developed if it is decided to remove the proposed pipeline and associated infrastructure. This plan will include management and mitigation measures to be implemented during the decommissioning of the project.

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.

Preferred Alternative

By implementing the recommendations of the report, the impact of the pipeline's construction phase will be kept to a minimum. Expected impacts are mostly related to the construction phase.

No-Go Alternative

The proposed pipeline and associated infrastructure is considered essential to enable the municipality to provide adequate basic services. The proposed project will add to the proper functioning of the water treatment works as well as providing adequate clean water for domestic use.

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 X	NO
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If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

N/A

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

Please refer to the recommended conditions and mitigation measures as listed in the EMPr (**Annexure F**).

Is an EMPr attached?

YES X	NO
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The EMPr must be attached as Appendix F.

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 D₁: Archaeological and Heritage Assessment

Appendix D₂: Ecological Report

Appendix D₃: Delineation of Wetlands and Seasonal Drainage Lines

Appendix D₄: Geotechnical Survey

Appendix D₅: Bulk Services Report

Appendix E: Comments and responses report

Appendix E₁: List of identified interested and affected parties

Appendix E₂: Example of notification

Appendix E₃: Proof of notification

Appendix E₄: List of registered parties

Appendix E₅: List of comments received

Appendix E₆: Proof of response to comments received

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

Appendix G₁: Proof of submission of application: Amendment of SDF: Bloemfontein

Appendix G₂: Proof of submission of application: Change of land-use (Dept. of Agriculture)

Appendix G₃: Declaration of specialists

Appendix G₄: Declaration of EAP