

FINAL BASIC ASSESSMENT REPORT



destea

department of
economic, small business development,
tourism and environmental affairs
FREE STATE PROVINCE

(For official use only)

File Reference Number:

Application Number:

Date Received:

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

Kindly note that:

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

12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included in the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

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

YES NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

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

The construction of new 600mmØ Raw Water Pipeline from Meulspruit dam to Ficksburg Water Treatment Plant. The pipeline will be designed to supply the future 24hours daily Peak demand in an 18 hour period allowing 6 hours per day for down time and maintenance of the pumps. It will also be designed to augment the water flow between the Meulspruit Dam and Ficksburg Water Treatment Plan and to supply 32MI/day less the existing capacity of the 315mm u-PVC pipeline. The total supply capacity of the new pipeline will be 27.1MI/day. The pipeline route crosses R26 and unnamed watercourse; therefore pipe jacking will be required and the core drilling methodology will be applied.

The existing pumps currently supplying water for the existing raw water pipeline between Meulspruit and Ficksburg Water Treatment Plant will be upgraded.

Technical Report is attached hereto as **Appendix J**

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

Listed activity as described in GN 983,984 and 985	Description of project activity
GN 983, Item 9 (i): The development of infrastructure exceeding 1000 metres in length for the bilk transportation of water or storm water, with an internal diameter of 0,36 metres or more.	A construction of 7500m length with 600mmØ raw water pipeline from Meulspruit Dam to Ficksburg Water Treatment plant.
GN 983, Item 19 (i): The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from- a watercourse	Material may be removed from an unknown watercourse where the pipeline is crossing

2. FEASIBLE AND REASONABLE ALTERNATIVES

“**alternatives**”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application as required by Appendix 1 (3)(h) of GN 982, Regulation 2014. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

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In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

Alternative S1 (preferred)

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

Alternative S2 (if any)

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

Alternative S3 (if any)

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

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

In the case of an area being under application, please provide the co-ordinates of the corners of the site

as indicated on the lay-out map provided in Appendix A of this form.

Only one route alignment has been proposed which runs for approximately 7Km from the Meulspruit Dam to Ficksburg Water Treatment Works, therefore; there are no alternatives.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

c) Technology alternatives

Alternative 1 (preferred alternative)
Alternative 2

Alternative 3

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

Alternative 1 (preferred alternative)		
Alternative 2		
Alternative 3		

e) No-go alternative

If the proposed raw water pipeline is not constructed, the Setsoto Local Municipality will not be able to provide for the high water demand because the existing pipeline is not adequate. Thus, the no go option is not preferred.

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

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Alternative A1¹ (preferred activity alternative)
 Alternative A2 (if any)
 Alternative A3 (if any)

Size of the activity:

	m ²
	m ²
	m ²

or, for linear activities:

Alternative:

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

Length of the activity:

	7500m
	m
	m

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

Alternative:

Alternative A1 (preferred activity alternative)

Size of the site/servitude:

	m ²
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¹ "Alternative A.." refer to activity, process, technology or other alternatives.

Alternative A2 (if any)	m ²
Alternative A3 (if any)	m ²

4. SITE ACCESS

Does ready access to the site exist?	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">YES</td> <td style="width: 50%; text-align: center;">NO</td> </tr> </table>	YES	NO
YES	NO		
If NO, what is the distance over which a new access road will be built	m		

Describe the type of access road planned:

The proposed route is along an existing gravel road used to access Meulspruit Dam and in the vicinity; there is an existing pipeline, railway line and gully erosions; it then crosses over the R26 under the overhead powerline then along the sidewalks of numerous streets, which are already transformed areas in town until it ends at the water treatment plant.

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

5. LOCALITY MAP

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

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

Locality map is attached hereto as **Appendix A1**

6. LAYOUT/ROUTE PLAN

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

The site or route plans must indicate the following:

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

Route plan is attached hereto as **Appendix A2**

7. SENSITIVITY MAP

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

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

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

The sensitivity map is attached hereto as **Appendix A3**

8. SITE PHOTOGRAPHS

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

Photographs are attached hereto as **Appendix B**

9. FACILITY ILLUSTRATION

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

Facility illustration is attached hereto as **Appendix C**

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Please explain
Setsoto Local Municipality has secured and owns land for which the proposed project will be built. The pipeline is along an existing pipeline route and a way leave will have to be obtained from the Department of Police, Roads and Transport, where the pipeline crosses R26			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Please explain
The proposed activity does not go against any of the high level strategic policies stated within the SDF. One of the objectives of the 2005-2006 SDF is to create more efficient supply of resources such as water and the IDP 2012/2016 of Thabo Mofutsanyana has included infrastructure and services as a priority issue in line with the National Development Programme and the Free State Growth and Development Strategy. The project is also in line with the municipality's strategy to align its project with that of the Government programmes, i.e. to improve access to basic services (Water), which is to maintain adequate bulk supply of water to meet the needs of all the residents. Therefore this project will ensure that the municipality is able to implement its strategy			
(b) Urban edge / Edge of Built environment for the area	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	Please explain
It is a pipeline and has no impact on the urban edge.			
(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	Please explain
The activity is in line with the 2015-2016 IDP. According to the IDP it is a high priority to create more efficient supply of resources such as water and therefore the project will fulfil with one of the high level strategic policies			
(d) Approved Structure Plan of the Municipality	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Please explain
N/A			

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<p>(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>Setsoto Local Municipality does not have an EMF.</p>			
<p>(f) Any other Plans (e.g. Guide Plan)</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>N/A</p>			
<p>3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The new pipeline is essential for addressing the problems associated with water demand in the municipality. It is in line with the Thabo Mofutsanyana District Municipality IDP 2012-2016 and Setsoto Local Municipality 2015/2016.</p>			
<p>4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The pipeline will supply water to meet the basic needs of the local people and it is in line with the objective of the Water services Act, 1997, i.e. to provide for the rights of access to basic water supply and Section 3 requires water service institutions to take reasonable measures to realise these rights and it is what the municipality is doing to ensure that all households in the Ficksburg/Meqheleng area have access to basic water supply..</p>			
<p>5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The existing water purification plant and the reservoirs have adequate capacity to accommodate the extra water supply. Refer to Appendix J</p>			

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<p>6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>It is not necessary because the pipeline will feed into an existing water treatment plant, which has enough capacity to accommodate the extra load and after treatment the reservoirs have the required storage capacity.</p>			
<p>7. Is this project part of a national programme to address an issue of national concern or importance?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p></p>			
<p>8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>A pipeline is needed from Meulspruit Dam to the Water Treatment Plant in Ficksburg and it will be parallel to the existing pipeline.</p>			
<p>9. Is the development the best practicable environmental option for this land/site?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>Less sensitive route was opted and economically feasible.</p>			
<p>10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The construction phase is short-term and it will be done according to a stringent environmental management plan to avoid or mitigate any impacts. On completion of the construction phase, rehabilitation plan has been compiled that will be implemented and thereafter an ECO should monitor the site. This in turn will ensure that the municipality is able to improve the water supply infrastructure and in turn provide adequate potable water for the Ficksburg/Meqheleng area.</p>			
<p>11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>No, except if upgrading of the pipeline is required to source raw water from Meulspruit to the Treatment Plant.</p>			
<p>12. Will any person's rights be negatively affected by the proposed activity/ies?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>Public participation was conducted and no objections were received from the public.</p>			
<p>13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The pipeline does not have any bearing on the urban edge.</p>			

14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	<input checked="" type="checkbox"/> NO	Please explain
If Setsoto LM is included as one of the least resourced municipalities, then the project will contribute to SIP 6: Integrated Municipal Infrastructure: Addressing all maintenance backlogs and upgrades required in water, electricity and sanitation bulk infrastructure.			
15. What will the benefits be to society in general and to the local communities?	Please explain		
The pipeline will transport water from Meulspruit Dam to Ficksburg Water Treatment Plant, which will supply the town with the necessary water to meet the basic needs of the local people in terms of their right to water, as set out in Section 27 (1) of the Constitution. The local communities will have access to a sustainable water resource and employment to local people.			
16. Any other need and desirability considerations related to the proposed activity?	Please explain		
N/A			
17. How does the project fit into the National Development Plan for 2030?	Please explain		
Water supply is one of the highlighted issues that need to be implemented			
18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.			
Project application and other relevant documents were lodged with the relevant departments. Public Participation process was conducted and no comments were received from the public. Less sensitive route was opted for and impacts were identified and mitigation measures were provided; and specialists were appointed.			
19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.			
All processes required to be followed on this application were done.			

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
Constitution of the Republic of South Africa (No. 108 of 1996)	Protection of human rights and environment of the study area	Parliament	18 December 1996
National Environmental Management Act (Act No 107 of 1998)	Protection of the environment of the study area and surroundings.	<ul style="list-style-type: none"> National – Department of Environmental 	09 June 1989

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1998)(as amended)		<p>Affairs</p> <ul style="list-style-type: none"> Provincial – Free State Department of Economic Development, Small Business, Tourism and Environmental Affairs 	
National Water Act (No. 36 of 1998)	Protection of water resources and where not possible relevant Permits/licences will need to sought by the Contractor.	DWA	26 August 1998
National Heritage Resources Act (No 25 of 1999)	Protection of heritage resources surrounding the study area and those uncovered during the development phase by reporting to the nearest heritage authority.	South African Heritage Resources Agency (SAHRA)	28 April 1999
National Environmental Management: Waste Act (Act 59 of 2008) (as amended)	Protection of the surrounding environment through efficient waste management by the appointed Contractor.	DEA	2008
National Environmental Management : Air Quality Act (Act No 39 of 2004)	Protection of air quality of the study through dust minimisation and the application of dust suppression	DEA	24 February 2004
National Road Traffic Act (No 93 of 1996)	The Contractor will obey traffic laws by driving at minimal speed approved by local authorities	<ul style="list-style-type: none"> National Department of Transport FS-Department of Police, Roads and Transport 	1996
Occupational Health and Safety Act (No 85 of 1993)	Protection of workers on site through provision of Personal Protective Equipment's; Training and other health and safety amenities.	Department of Labour	23 June 1993
All relevant Provincial regulations, Municipal bylaws	The Contractor will obey and abide by provincial and municipal bylaws which are related to the proposed project.		

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

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

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

m ³	
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How will the construction solid waste be disposed of (describe)?

N/A

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

N/A

Will the activity produce solid waste during its operational phase?

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

m ³	
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How will the solid waste be disposed of (describe)?

N/A

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

N/A

Where will the solid waste be disposed of 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 NEM:WA?

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

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

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

b) Liquid effluent

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

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

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

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

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

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

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:

Due to the nature of the proposed project, no waste water will be generated during the construction or operational phase of the activity.

c) Emissions into the atmosphere

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

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

YES	NO
-----	---------------

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

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

The emissions into the atmosphere will be those associated with the release of emissions from construction vehicles (carbon monoxide). The concentration will be very low, and therefore the effect on the atmosphere will be diminutive. To ensure that as little pollution from the construction vehicles enter the atmosphere, the vehicles will be fitted with the necessary devices to minimize pollution and the vehicles will be kept in good mechanical working condition at all times.

Limited dust generation will occur during the construction phase of the activity, therefore it will be temporary..

d) Waste permit

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

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

e) Generation of noise

Will the activity generate noise?

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

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

The noise that will be generated is that which is commonly associated with construction (excavating and backfilling of soil, etc.) and will be limited to a small area of the construction site. Construction noise will also be limited to normal working hours, i.e. 7:30 to 17:00.

13. WATER USE

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

<input checked="" type="checkbox"/> Municipal	<input type="checkbox"/> Water board	<input type="checkbox"/> Groundwater	<input type="checkbox"/> River, stream, dam or lake	<input type="checkbox"/> Other	<input type="checkbox"/> 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:

N/A

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

YES NO

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

A pre application site inspection has been undertaken with the official from Free State DWS to confirm the water use activities and it was confirmed that Section © and (i) application should be lodged. Therefore an application will be submitted to DWS with the final BAR and proof of submission would be sent to DESTEA.

14. ENERGY EFFICIENCY

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

The pumps are designed to use minimum electricity

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

No alternative energy sources can sustainably used for this project

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

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

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

- Has a specialist been consulted to assist with the completion of this section? YES NO
 If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	Free State
District Municipality	Thabo Mofutsanyane
Local Municipality	Setsoto
Ward Number(s)	10,12,13,14,15,16,17,18
Farm name and number	Ficksburg Dorp Gronde No.75
Portion number	Remainder
SG Code	F01200000000007500000

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

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

The pipeline route consists of different land use i.e. residential area and grazing land.

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

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

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

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

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

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

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

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

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

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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	Gardens
Sport field	Cultivated land	Paved surface	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. SURFACE WATER

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

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

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

- The urban stream is within the E/F ecological category resulted from perpetual sewerage contamination, physical transformation of the watercourse, dumping of rubbles and urban refuse and domination of exotic vegetation within the riparian zone.
- The Meulspruit has also suffered ecological degradation through the construction of the Meulspruit Dam that does not cater for environmental maintenance flows.
- The stream is within a D Present Ecological State.
- Wetlands habitat units occur in the proposed area and would be impacted by the proposed development activities.
- A Hydrogeomorphic form includes see zones and channelled valley-bottomed wetlands.
- Wetlands do exist along the proposed alignment route; many exist due to the continued leaking of the existing pipeline. Wetland report is attached hereto as **Appendix D3**.

6. LAND USE CHARACTER OF SURROUNDING AREA

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

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

The pipeline route moves along the gravel road, the existing pipeline and the railway line. The railway line will not be impacted.

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

N/A

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

N/A

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

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

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Buffer area of the SKA?	YES	NO
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If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

7. CULTURAL/HISTORICAL FEATURES

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

There is a circular brick-built structure at the historical Anna Maria Mill site, which is assigned the rating of Generally Protection C (GP.C). The pipeline will run along a degraded area between the existing gravel road and the Anna Maria Mill site. Therefore, during the construction phase the structure should be strictly avoided.

Archaeological report is attaché hereto as **Appendix D1**.

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

Archaeological Impact Assessment

- According to the Archaeological Impact Assessment (AIA), a well-developed erosional gullies are present within overbank sediments of the Spruit.
- Investigation of the dongas showed no evidence of intact Quaternary palaeontological or Stone Age archaeological exposures in the vicinity of the pipeline footprint.
- Potential impact on Quaternary vertebrate fossil resources within the superficial overburden is considered unlikely.
- There is a circular brick-built structure at the historical Anna Maria Mill site which should be strictly avoided during the construction phase of this section.
- No aboveground evidence was found of *in situ* Stone Age archaeological material, rock art, prehistoric structures, graves or historically significant structures older than 60 years along this section.
- Declared heritage sites like the house at 81 McCabe Street, erected in 1885, the Town Hall and General Fick Museum on Old Market Square the Nederduitse Gereformeerde Mother Church in Voortrekker Street and the Old Prison Cells on Brand Street will not be impacted by the proposed development (see Fig. 4). Potential impact on Quaternary vertebrate fossil resources within the superficial overburden is considered unlikely. The section is assigned the rating of Generally Protected C (GP.C).

Report is attached hereto as **Appendix D1**

Palaeontological Impact Assessment

- The footprint is underlain by the upper Triassic to lower Jurassic Elliot Formation that made up of siltstones and mudstones and fine grained sandstones with a high potential for fossils of the Massospondylus and Euskelosaurus Range Zones that could be characterised as rare but highly significant
- The development area consists largely of disturbed areas in the town of Ficksburg.
- The only area where fossils might be present is on the outskirts of the town along the R26 road and at the Meulspruit Dam. In these areas the absence of potentially fossiliferous gulleys and appropriate exposures suggest that fossils are absent from the site.
- The impact on palaeontological material is negligible and regarded as insignificant.

Report is attached hereto as **Appendix D2**

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

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

YES	NO
YES	NO

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

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

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

Level of unemployment:

35.7%

Economic profile of local municipality:

Poor (low income)

Level of education:

8.7% have not matriculated while 6.9% of the population have higher qualifications

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R63,000,000.00
What is the expected yearly income that will be generated by or as a result of the activity?	R604 800.00
Will the activity contribute to service infrastructure?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Is the activity a public amenity?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	20
What is the expected value of the employment opportunities during the development and construction phase?	R604 800.00
What percentage of this will accrue to previously disadvantaged individuals?	100%
How many permanent new employment opportunities will be created during the operational phase of the activity?	0
What is the expected current value of the employment opportunities during the first 10 years?	R0
What percentage of this will accrue to previously disadvantaged individuals?	100%

9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult <http://bgis.sanbi.org> or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

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

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	

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

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	5%	Very limited in extent. Small pockets of natural areas in between degraded habitat.
Near Natural (includes areas with low to moderate level of alien invasive plants)	15%	Grasslands subject to informal grazing have been transformed, but could be rehabilitated with mitigation, including removal of the drivers of ecological change (informal grazing, resource harvesting, dumping, landscaping, etc).
Degraded (includes areas heavily invaded by alien plants)	35%	All riparian zones of watercourses are heavily infested by exotic and invasive plants
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	45%	Formal infrastructure development (major roads, pipelines and railways), formal residential and commercial/industrial areas and informal residential land use has led to largescale habitat transformation

c) Complete the table to indicate:

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

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

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

- Vegetation structures associated with the proposed activity have been retained, albeit in an altered state due to trampling, overgrazing and general disturbances.
- Riparian zones are dominated by exotic vegetation.
- No Red Data Listed (RDL) flora species are recorded or observed.
- The likelihood of RDL flora species inhabiting the impact area is considered low.

Report is attached hereto as **Appendix D3**

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Ficksburg Son	
Date published	23 October 2015	
Site notice position	Latitude	Longitude
	S 28°52'50.4"	E 27°50'07.3"
	S 28°52'43.2"	E 27°53'27.1"
Date placed	22 October 2015	

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

Newspaper advert notice and posters are attached hereto as **Appendix E1**

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 982

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 982

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Mr. George Motheo	FS-DWS	motheog@dws.gov.za
Ms. Mahlatse Moeng	FS-Eskom	Mahlatse.moeng@eskom.co.za
Ms. Irene Mofuli	FS-DPRT	mofulii@freetrans.gov.za

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

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

Emailed notifications are attached hereto as **Appendix E2**

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP

No issues were raised and no meetings were held.

4. COMMENTS AND RESPONSE REPORT

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

Comments received from the I&APs are attached hereto as **Appendix E3**. No comments on Draft BAR were received from Eskom and DWA

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority /Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
FS-DWS	Mr. George Motheo	051 405 9000		motheog@dws.gov.za	P.O. Box 528, Bloemfontein 9300
FS-Eskom	Ms. Mahlatse Moeng	051 404 2287	086 604 5709	Mahlatse.moeng@eskom.co.za	P.O. Box 356, Bloemfontein 9300
FS-DPRT	Ms. Irene Mofuli	051 409 8849		mofulii@freetrans.gov.za	P.O. Box 119, Bloemfontein 9300

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

Copies on notifications are attached hereto as **Appendix E4**

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

6. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

There is no deviation from the Public Participation Process

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

List of registered I & Aps is attached hereto as **Appendix E5**

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

No public meeting was held.

SECTION D: IMPACT ASSESSMENT

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

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

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

Summary of Impacts Assessment is attached hereto as **Appendix F**

INFORMATION ON THE METHODOLOGY ADOPTED IN THE ASSESSMENT OF IDENTIFIED IMPACTS

The following requirements as stipulated in the Environmental Impact assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act (Act 107 of 1998) as amended were considered when undertaking an impact assessment, that-

When undertaking an impact assessment a description and assessment of the significance of any environmental impacts, including;

- (i) Cumulative impacts, that may occur as a result of the undertaking of the activity during project life cycle;
- (ii) Nature of the impact;
- (iii) Extent and Duration of impact;
- (iv) The probability of Impact occurring
- (v) The degree to which the impact can be reversed;
- (vi) The degree to which the impact may cause irreplaceable loss of resources; and
- (vii) The degree to which the impact can be mitigated; should be considered

The method for determining the impact risk as well as the description for determining the impact risk is provided below:

1) Cumulative Impacts

Cumulative impacts¹ can simply be defined as the total impact that a series of developments, either present, past or future, will have on the environment within a specific region over a particular period of time

The spatial scale can be local, regional or global, whilst the frequency or temporal scale includes past, present and future impacts on a specific environment or region, therefore the potential cumulative impacts on the entire receiving environment are addressed for all the project phases and the mitigation measures implemented before and after.

2) Nature of the Impact

A description of what causes the effect, what will be affected and how it will be affected

3) Extent of Impacts

Extent indicates whether the impact will be local (limited to the immediate area or site of development), regional, national or international.

A score of between 1 and 5 is assigned. (With a score of 1 being low and a score of 5 being high) as shown in *Table 1* below.

TABLE 1: EXTENT OF IMPACTS

VALUE	RATING (EXPOSURE)	DESCRIPTION
5	Global/National	The effect of the impact will occur on a national/ and or global scale
4	Regional/Provincial	The effect will occur on the entire province or region
3	Local	The effect will extend as far as the development site area including municipal area.
2	Limited	The effect will be limited to the site and its immediate surroundings
1	Very limited	The effect will be limited to the specific isolated parts of the site

4) Probability of Impact occurring

The probability of an impact refers to the likelihood of an impact occurring. Probability is estimated on a scale, and a score of 1-5 is assigned as shown in *Table 2* below.

TABLE 2: PROBABILITY OF IMPACT OCCURING

RATING	DESCRIPTION
1	Very improbable(probably will not happen)
2	Improbable (some possibility, but low likelihood)
3	Probable (distinct possibility)
4	Highly Probable (most likely)
5	Definite (impact will occur regardless of any prevention measure)

5) Duration of impacts and degree to which impacts can be reversed

Duration refers to the actual impact timeframe. The reversibility of impacts is directly linked to the duration of the impacts. A factor is awarded in accordance with the following:

- Immediate: 0- <1 years- Factor 1
- Short term: 1 to 5 years - Factor 2

- Medium term: 5 to 15 years - Factor 3
- Long term: impact will only cease after the operational life of the activity, either because of natural process or by human intervention - Factor 4.
- Permanent: mitigation, either by natural process or by human intervention, will not occur in such a way or in such a time span that the impact can be considered transient - Factor 5.

Table 3 below indicates the duration of impacts and the degree to which the impacts can be reversed.

TABLE 3: DURATION OF IMPACTS AND DEGREE TO WHICH IMPACTS CAN BE REVERSED

VALUE/FACTOR	DESCRIPTION	REVERSIBILITY
1	Immediate	Immediately reversible
2	Short-term	Quickly reversible
3	Medium term	Reversible over time
4	Long term	Reversible over the long term
5	Permanent	Irreversible/ No mitigation measures will reduce the impact after implementation

1) Degree to which the impact may cause irreplaceable loss of resources (Magnitude)

The magnitude of the impact refers to the importance of the impact in relation to the significance of the development.

The magnitude is quantified on a scale from 1-10, where 1 is small and 10 is very high as shown in Table 4 below.

TABLE 4: DEGREE TO WHICH THE IMPACT MAY CAUSE IRREPLACEABLE LOSS OF RESOURCES

VALUE	DESCRIPTION
1	Small and will have no effect on the environment
2	Minor and will result in an impact on processes
4	Low and will cause a slight impact on processes
6	Moderate and will result in processes continuing but in a modified way
8	High (processes are altered to the extent that they temporarily cease)
10	Very high(results in complete destruction of patterns and permanent cessation of processes)

- 2) The significance which is determined through a synthesis of the characteristics described above (refer to formula below) and can be assessed as low, medium or high**

The **significance weightings** for each potential impact are shown in Table 5 below:

TABLE 5: SIGNIFICANCE WEIGHTINGS

VALUE	DESCRIPTION
<30 points	Low (the impact would not have a direct influence on the decision to develop in the area)
30-60 points	Medium (the impact could influence the decision to develop in the area unless it is effectively mitigated)
>60 points	High (the impact must have an influence on the decision process to develop in the area)

The significance is determined by combining the criteria in the following formula:

S= (E+D+M) P; where

S= Significance weighting

E= Extent

D= Duration

M= Magnitude

P= Probability

¹ DEAT (2004) *Cumulative Effects Assessment, Integrated Environmental Management, Information Series 7, Department of Environmental Affairs and Tourism (DEAT), Pretoria.*

There are no alternatives proposed for the development. A complete Impacts Assessment is attached hereto as **Appendix F**

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
	<p>Direct impacts:</p> <ul style="list-style-type: none"> • Vegetation clearance • Surface water • Air quality • Noise pollution • Solid waste • Water provision • Water supply • Traffic 	<ul style="list-style-type: none"> • Low • Low • Low • Low • Low • Low • Low • Low 	See Appendix F for proposed mitigations
	<p>Indirect impacts:</p> <ul style="list-style-type: none"> • Fauna • Topography • Wetland • Palaeontological and 	<ul style="list-style-type: none"> • Low • Low • Medium • Low 	See Appendix F for proposed mitigations

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Activity	Impact summary	Significance	Proposed mitigation
	Archaeological artifacts		
	Cumulative impacts:		
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
Alternative 2			
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
Alternative 3			
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
No-go option			
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		

A complete impact assessment in terms of Regulation 19(3) of GN 982 must be included as Appendix F.

A complete impact assessment is attached hereto as **Appendix F**

2. ENVIRONMENTAL IMPACT STATEMENT

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

Alternative A (preferred alternative)

--

Alternative B

--

Alternative C

--

No-go alternative (compulsory)

If the proposed raw water pipeline is not constructed, the Setsoto Local Municipality will not be able to provide for the high water demand because the existing pipeline is not adequate. Thus, the no go option is not preferred.

No alternatives were recommended/proposed

Maximum mitigation measures for identified impacts were taken into consideration to ensure that the project is not detrimental to the environment and human beings.

Impacts associated with the proposed pipeline are attached hereto as **Appendix F**

SECTION E. RECOMMENDATION OF PRACTITIONER

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

YES	NO
-----	----

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

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

- Wetlands crossing would be required and cannot be reasonably avoided.
- There are wetlands that were identified by the specialist, were a 32m buffer zone was recommended within wetlands.
- Wetland specialist should be contracted to demarcate the 32m conservation buffer zone before construction across the across wetland occurs.
- Stream crossings and wetlands should be monitored after rehabilitation for 12 months.
- It is recommended that the guidelines for trenching in wetlands be implemented, see **Appendix J; Wetland rehabilitation plan**
- The pipeline will cross R26; therefore a Way leave should be lodged with the Department of Police, Roads and Transport.
- Eskom servitudes in the area should be accommodated when determining the pipeline route; they should be strictly avoided during construction phase.
- There is a circular brick-built structure at the historical Anna Maria Mill site which should be strictly avoided during the construction phase of this section.
- Based on the findings of the specialists report and identified impacts and mitigation measures, it is recommended that the development be approved.

YES	NO
-----	----

Is an EMPr attached?

The EMPr must be attached as Appendix G.

EMPr is attached hereto as **Appendix G**

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

Details of the EAP are attached hereto as **Appendix H**

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

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

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NAME OF EAP

SIGNATURE OF EAP

DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information