14/03/2022

FINAL BASIC ASSESSMENT REPORT

PROPOSED BULK WATER PIPELINE, LADYBRAND,

MANTSOPA LOCAL MUNICIPALITY

DESTEA REF. NO.: EMB/19/22/01

CONSULTANTS

NSVT

ENVIRONMENTAL & SOCIAL SCIENTISTS

(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 as amended 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 **07 April 2017**. 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.

EXECUTIVE SUMMARY

NSVT Consultants has been appointed by Flagg Consulting Engineers as the independent Environmental Assessment Practitioner to undertake a Basic Assessment process for the proposed approximately 1.4km uPVC bulk water pipeline that ties into the existing bulk water reticulation from Senorita Nhlabathi hospital connection to Manyatseng connection. The Municipality proposed this development to be able to meet the current and future needs of water in Manyatseng due to population growth. Although, the pipeline is below listed activity threshold for pipeline specifications as outlined in the Environmental Impact Assessment Regulations, the Basic Assessment process is required because the proposed pipeline will cross a single significant fourth order seasonal watercourse, which does not necessarily possess a distinct riparian zone due to the lack of continuous water flow through the local area. In addition to the watercourse, it also crosses two stormwater flow channels and artificial wetland, which is as a result of a significant long-term underground water pipeline leakage and currently provides no important ecological services to the local and broader Quartenary catchment and drainage towards the east. Therefore, an Environmental Authorisation must be obtained from the competent authority, *i.e.*, the Department of Economic, Small Business Development, Tourism, and Environmental Affairs for the proposed watercourse crossing.

No alternative sites were considered as part of the Basic Assessment Process because route selection was completed prior to the appointment of the Environmental Assessment Practitioner and the proposed gravity-feed bulk water pipeline follows the topography to tie into the existing bulk water network. A no-go alternative was deemed not feasible as the proposed watercourse crossing is to connect to an existing bulk water network so as to provide water to the Manyatseng area and if it does not go ahead then the water challenges will not be addressed. No comments were received during the first phase of the public participation process, whereby newspaper advert was placed, on-site notice, posters at prominent places, and email notifications with the background information document attached. Thereafter, a draft report was sent for review, and comments were only received from South African Heritage Resources Agency, which were incorporated into the final Environmental reports before submission to the competent authority. Thus, it can be concluded that the proposed development is socially acceptable.

The development is not compromising the integrity of the municipality's Integrated Development Plan and Spatial Development Framework and also the Provincial one too. By undertaking the proposed development, the development priority of providing and facilitating sustainable infrastructure development will be realized. The photographic history depicting the conditions and land uses within and surrounding the proposed pipeline route and the assessment area is shown. To identify

environmental impacts associated with the proposed pipeline, a site visit was undertaken, a desktop study/literature review, involvement of specialists, *i.e.* Heritage Specialist and an Ecologist to provide mitigation and recommendations pertaining to the development.

The identified impacts were assessed using the Significance Assessment Methodology based on the nature of the impact, extent and duration, reversibility, probability, magnitude, whether it is cumulative and if there will be residual risks. The significance of the impacts was measured without and with the adoption of the mitigation and management. From the assessment, the significance of impacts ranged between low and medium with mitigation measures and due to the nature of the project, the disturbed area footprint would be narrow. The identified impacts, with the key impacts being impact on the watercourse, will be reduced greatly with the implementation of the outlined mitigation measures and the likelihood of residual impacts will be limited. There will be limited residual impacts and the potential for cumulative impacts also be reduced if the outlined mitigation measures are implemented and proper rehabilitation follows post-construction.

It is recommended that since the area is in a degraded state, including surroundings, it needs to be rehabilitated as well as implement sufficient grazing management and plan and practices livestock grazing. Immediate steps must be taken to locate and remediate the sources of continued raw sewage contaminating the watercourse. A water use license application has been lodged with the Department of Water and Sanitation so that the license may be obtained prior to project implementation/commencement of construction activities. During the construction at the river crossing, a Palaeontologist must be appointed to monitor excavations and on completion, a monitoring report must be submitted to the South African Heritage Resources Agency.

Given the above information, the Environmental Assessment Practitioner hereby recommends that the provided recommendations, condition and mitigation measures outlined in the Basic Assessment Report and Environmental Management Programme including the management plans are adhered to and it is expected that DESTEA has been provided with adequate information to enable them to make an informed decision regarding the proposed watercourse crossing.

BASIC ASSESSMENT REPORT

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

PREPARED BY:	**PREPARED FOR**:
NSVT Consultants PO Box 42452, Heuwelsig, Bloemfontein 9332 Cell: 082 784 8259 Telephone: 051 430 1041/2 Fax: 086 239 9133 Contact person: Lorato Tigedi *Pr. Sci. Nat.* Email: lorato@nsvt.co.za	Mantsopa Local Municipality P.O. Box 64, Ladybrand 9745 Cell: 081 464 9624 Telephone: 051 924 0654 Fax: 051 924 0020 Contact person: Motshilisi Lesoetsa Email: mmsecretary@mantsopa.co.za
CONSULTANTS NSVT ENVIRONMENTAL & SOCIAL SCIENTISTS	MANTSOPA MUNICIPALITY SERVING COMMUNITY WITH EXCELLENCE

PROJECT INFORMATION

REPORT TITLE: Basic Assessment Report

REPORT STATUS: Final

PURPOSE OF REPORT: The purpose of this BAR is to present the proposed development and the need for the development; provide details of the Environmental Assessment Practitioner ("EAP") appointed to undertake the Basic Assessment ("BA") process; provide an overview of the public participation process; and to set out the environmental outcomes, impacts, and residual risks.

PROJECT TITLE: Proposed Ladybrand Bulk Water Pipeline, Mantsopa Local Municipality

APPLICANT: Mantsopa Local Municipality

PROJECT ENGINEERS: Flagg Consulting Engineers

ENVIRONMENTAL ASSESSMENT PRACTITIONERS: NSVT Consultants

TABLE OF CONTENTS

SECTION A: ACTIVITY INFORMATION 8
1. PROJECT DESCRIPTION 8
2. FEASIBLE AND REASONABLE ALTERNATIVES 10
3. PHYSICAL SIZE OF THE ACTIVITY 13
4. SITE ACCESS 13
5. LOCALITY MAP 14
6. ~~LAYOUT/~~ROUTE PLAN 14
7. SENSITIVITY MAP 15
8. SITE PHOTOGRAPHS 15
9. FACILITY ILLUSTRATION 15
10. ACTIVITY MOTIVATION 16
11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES 22
12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT 25
13. WATER USE 28
14. ENERGY EFFICIENY 28
SECTION B: SITE/AREA/PROPERTY DESCRIPTION 29
1. GRADIENT OF THE SITE 30
2. LOCATION IN LANDSCAPE 30
3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE 30
4. GROUNDCOVER 31
5. SURFACE WATER 32
6. LAND USE CHARACTER OF SURROUNDING AREA 33
7. CULTURAL/HISTORICAL FEATURES 34
8. SOCIO-ECONOMIC CHARACTER 35
9. BIODIVERSITY 36
SECTION C: PUBLIC PARTICIPATION 38
1. ADVERTISEMENT AND NOTICE 38
2. DETERMINATION OF APPROPRIATE MEASURES 38
3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES (..... 39
4. COMMENTS AND RESPONSE REPORT 39
5. AUTHORITY PARTICIPATION 40
6. CONSULTATION WITH OTHER STAKEHOLDERS 41
SECTION D: IMPACT ASSESSMENT 42
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 42
2. ENVIRONMENTAL IMPACT STATEMENT 44
SECTION E. RECOMMENDATION OF PRACTITIONER 46
SECTION F: APPENDIXES 48

SECTION A: ACTIVITY INFORMATION

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

A bulk water pipe from a connection point near Senorita Nhlabathi Hospital to the one located near Manyatseng, which is aimed a supply water to Manyatseng area. The linear development footprint is situated on the northern outskirts of Ladybrand and south of Manyatseng. The proposed pipeline is within the urban edge, and it is approximately 1.4m with a 250mm diameter thus below the threshold for an Environmental Impact Assessment. At the initial southern section from the hospital connection point, the pipeline crosses an artificial wetland then two man-made stormwater flow channels then a significant fourth order seasonal watercourse. At the section of the watercourse crossing, a steel pipe bridge is to propose to carry the bulk water pipeline across and the bridge columns will be placed within the banks of the watercourse.

The Basic Assessment Process is undertaken to determine possible environmental impacts that the proposed construction of a steel pipe bridge to carry a uPVC bulk water pipeline across a watercourse, may have on the receiving and surrounding environment. As mentioned, the pipeline diameter and throughput does not fall within the ambit of the 2014 NEMA regulations as amended, but since there will be excavation, removal, and backfilling of material of more than $10m^3$ from the watercourse for laying of the pipeline, a Basic Assessment process must be undertaken to obtain an Environmental Authorisation.

The proposed pipeline is part of the bigger scope to address water challenges within Ladybrand/Manyatseng area. Technical documentation is attached hereto as Appendix J, the Technical report providing more information on the proposed development is contained in **Appendix J1** and the watercourse crossing methodology in **Appendix J2**.


Ladybrand Pipeline
Write a description for your map.
Legend
? ?Eskom Ladybrand CNC
? ?FNB Bank ATM SaveRite Manyatseng
? ?Ladybrand Substation
? ?Maluti Tavern
? ?Senorita Nhlabathi Hospital
Drawing
Eskom Ladybrand CNC
Ladybrand Substation
Senorita Nhlabathi Hospital
Maluti Tavern
Church St
Loop St
Oosterstr
R26
Google Earth
Image © 2021 Maxar Technologies
300 m
N

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

Listed activity as described in GN 327,325 and 324	Description of project activity
GNR 327:- Activity 19: The infilling of material of more than 10m^3 and excavation and removal of soil of more than 10m^3 from a watercourse	Construction of a pipe bridge to carry the bulk water pipeline across the watercourse. Material that will be removed from the watercourse and backfilled is more than 10m^3.

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 326, Regulation 2014 as amended. 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-Watercourse Crossing

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
	29˚10’ 52.71”	27˚ 28’ 8.25”
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)

Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

In the case of linear activities:

Alternative:	Latitude (S):	Longitude (E):
Alternative S1 (preferred)		
• Starting point of the activity	29˚11’ 17.47”	27˚ 28’ 2.48”
• Middle/Additional point of the activity	29˚ 11’ 5.50”	27˚ 28’ 1.73”
• End point of the activity	29˚ 10’ 51.48”	27˚ 28’ 9.90”
Alternative S2 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		
Alternative S3 (if any)		
• Starting point of the activity		
• Middle/Additional point of the activity		
• End point of the activity		

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

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

b) Lay-out alternatives (N/A)

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)
The material of the proposed pipeline, uPVC was selected because it would not deteriorate due to exposure of the direct sunlight, where it crosses the Sand River. The proposed steel pipe bridge will fully support the pipeline at a straight gradient so that it does not experience sagging pressure. The pipeline will be gravity-feed; thus, the flow will not be pressurized. Therefore, no further technology alternatives were considered as maintenance of a pumpstation will result in high maintenance cost during operations.
Alternative 2
Alternative 3

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

Alternative 1 (preferred alternative)		
Alternative 2		
Alternative 3		

e) No-go alternative

Should the construction of the proposed pipeline not go ahead as planned, water shortages in the Manyatseng area will worsen as Mantsopa Local Municipality will not be able to provide the community with sufficient and reliable basic water. The existing water source would be unable to meet the current and future water demand. Therefore, this will infringe on the Constitutional Right of the Manyatseng

Community as they would not have access to clean and reliable water.

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): (Size of pipe bridge)

Alternative:	**Size of the activity:**
Alternative A1[1] (preferred activity alternative)	6m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

or, for linear activities:

Alternative:	**Length of the activity:**
Alternative A1 (preferred activity alternative)	60 m
Alternative A2 (if any)	
Alternative A3 (if any)	m

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

Alternative:	~~**Size of the site/servitude:**~~
Alternative A1 (preferred activity alternative)	m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

4. SITE ACCESS

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

Describe the type of access road planned:

N/A

[1] "Alternative A.." refer to activity, process, technology or other alternatives.

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 for the proposed pipeline route and watercourse crossing 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**.

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.

Sensitivity Map for the Proposed Route 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.

Photographic History is 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 (Design Drawings) are 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?		**NO**	Please explain
The proposed activity does not alter the existing land use right because the new pipeline runs parallel to an existing one. On completion a new servitude will have to be registered.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	**YES**		Please explain
The undertaking of the Basic Assessment Process will ensure that the development is carefully and sensitively managed to promote spatial sustainability. In the Free State PSDF, the Strategic Framework for water services sets out seven goals for water and sanitation and the one relevant for this project is "All people living in South Africa should have access to an appropriate, acceptable and affordable basic water supply and sanitation". There are key provincial priorities that have been identified and the second key priority area focuses on human and social development, whereby it is indicated that basic infrastructure backlogs still exist, thus it is imperative for municipality to address such, as a result the proposed development will decrease the number of people without access to adequate and reliable water supply within the Manyatseng area. Therefore, this proposed project is in line with the Provincial efforts to improve social services and infrastructure for the community of Manyatseng.			
(b) Urban edge / Edge of Built environment for the area	**YES**		Please explain
Yes, it is located within the urban edge between Manyatseng and Ladybrand town and the pipeline servitude will be registered after it has been constructed.			
(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?).	**YES**		Please explain
According to the IDP 2021/22, the municipality intend to address water challenge issues, which will in turn improve the quality of lives. Therefore, with this proposed development, the Manyatseng community will be provided with adequate and reliable water supply and there will be uninterrupted access to piped water, the reasonable level of water supply in the area. This proposed development will also ensure that "Infrastructure and Basic Services", one of the National Key Performance areas that IDPs are based on is met. Given, the above it is evident that the development would not compromise the integrity of the IDP and SDF.			

(d) Approved Structure Plan of the Municipality		**NO**	Please explain
Mantsopa Local Municipality does not have an approved structure plan.			
(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?)	**YES**		Please explain
Although Mantsopa Local Municipality does not have an adopted EMF, the undertaking of the Basic Assessment, will ensure that the mitigation and management measures are outlined to address and risk of pollution as a result of the proposed development so that negative impacts are minimized and positive benefits enhanced.			
(f) Any other Plans (e.g. Guide Plan)	**YES**		Please explain
The proposed development is in line with the Free State Provincial Growth Development Strategy, as 4 Key Performance Areas are identified and the one applicable is to develop and enhance infrastructure for economic growth and social development and to ensure a safe and secure environment for all people of the province.			
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)?	**YES**		Please explain
With improvement of the water supply infrastructure by implementing the proposed development, the municipality will be able to attain its goal of ensuring 100% households in both formal and informal settlements have access to basic level of water by 2022 as outlined in the IDP. Therefore, the stipulated year is aligned with the time frames outlined for this development.			
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.)	**YES**		Please explain
On the local level it is crucial the proposed development takes place for the provision of basic services (water supply provision and infrastructure), which is one the priority needs that were raised by the community during IDP consultations.			

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.)	**YES**		Please explain
The proposed development connects to an existing bulk water reticulation, therefore, it does not require any additional capacity. No confirmation thereof is attached because the municipality is the applicant.			
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.)	**YES**		Please explain
There will be no implication on the infrastructure planning of the municipality as the municipality is the applicant in this regard and on completion of the construction phase, after site handover, the municipality will be responsible for the operation and maintenance of the pipeline.			
7. Is this project part of a national programme to address an issue of national concern or importance?		**NO**	Please explain
The project is to benefit the residents of Manyatseng, i.e. Thabong Extension 8, 9 and 10, Marikana, Mandela Park and Palamenteng. Therefore, it will address a local concern for MLM.			
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.)	**YES**		Please explain
The location favours the proposed development as there is no other alternative that the municipality could implement to augment their water supply without constructing a new pipeline to connect to the existing bulk water reticulation . The watercourse crossing cannot be bypassed as it is located between Manyatseng and Ladybrand. The topography of the area is suitable for the pipeline to be gravity-fed thus ensuring that the municipality does not incur costs associated with maintenance and operation of pumping stations.			

9. Is the development the best practicable environmental option for this land/site?	**YES**		Please explain
To be able to connect the Manyatseng connection to the newly developed hospital connection, the new bulk water pipeline would still need to cross the watercourse as it is diving the two connection points. The pipeline is gravity-fed, aligned with the topography, therefore does not require a pumpstation, hence the proposed route as any deviation would need one and the operational costs thereof, will be too costly for the municipality. The impacts will be temporary and with implementation of outlined mitigation measures, they , it could be considered the best option.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	**YES**		Please explain
The identified environmental impacts are short-term as construction is envisaged to take 5 months, therefore with careful planning and practicing due diligence during the construction phase, together with proper site re-instatement any potential residual environmental impacts will be limited. After rehabilitation, the receiving environment will be returned to its natural state to a greater extent and functionality reinstated. This will negate the long-term significant impacts imposed on the respective systems. The proposed development is to address water provision challenges for 20 years life cycle. Therefore, the positive impacts do outweigh the negative impacts. During the operation phase, the municipality will be responsible for the operation and maintenance of the new bulk water infrastructure.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?		**NO**	Please explain
There will be no need to construct a new bulk water pipeline across the watercourse.			
12. Will any person's rights be negatively affected by the proposed activity/ies?		**NO**	Please explain
From the public participation process undertaken, no objections were received thus it is assumed that no person's rights will be negatively affected.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?		**NO**	Please explain
The proposed development occurs between Manyatseng and Ladybrand, therefore, it does not compromise the urban edge because it is already within.			

14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	**YES**		Please explain
It will contribute to SIP 6-Integrated Municipal Infrastructure Project- Develop national capacity to assist the 23 least resourced districts (19 million people) to address all the maintenance backlogs and upgrades required in water, electricity, and sanitation bulk infrastructure. As the construction of the pipeline will contribute to the bulk water infrastructure and address water shortages in Manyatseng.			
15. What will the benefits be to society in general and to the local communities?			Please explain
The Manyatseng community will have access to safe and reliable water, which is essential to public health and wellbeing as well as overall social and economic progress.			
16. Any other need and desirability considerations related to the proposed activity?			Please explain
The pipeline will transport bulk water from the connection of Ladybrand Hospital, to Manyatseng connection point so that water shortages are addressed. This will enable the municipality to supply the area with the adequate 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. This in turn will improve water supply infrastructure within Ladybrand/Manyatseng area and this could result in municipality introducing metred connections t promote payment of services by residents.			
17. How does the project fit into the National Development Plan for 2030?			Please explain
The proposed development is in line with the objective contained in Chapter 4, Economic Infrastructure of the NDP for 2030, which is as follows" *Ensure that all people have access to clean, potable water and that there is enough water for agriculture and industry, recognising the trade-offs in the use of water"*. Therefore, the development will ensure Mantsopa Local Municipality has a sustainable bulk water supply that enables the municipality to supply adequate water to areas within their jurisdiction for different uses. It will address challenge contained in the National Development Plan *"3. Infrastructure is poorly located, inadequate and under-maintained*" by expanding and improve the existing water infrastructure within the Ladybrand/Manyatseng area thus in turn addressing water supply challenges that is faced by the municipality.			

18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.

The objectives of IEM have been considered as Mantsopa Local Municipality, as the applicant will be accountable and take responsibility of ensuring implementation and compliance of the conditions that will be set out in the Environmental Authorisation and Water use License. The Department of Water and Sanitation will ensure that the impacts on the watercourse during the construction of a pipe bridge to carry the bulk water pipeline are localized and mitigated to a greater extend. Public Participation Process was undertaken and during the process, means of empowering people so that they can have meaningful involvement were sought. Comments and input received are captured so that they can be considered during decision-making. Some of the identified aspects will be addressed by specialists to ensure that proper mitigation measures and recommendations are made for the negative impacts on the receiving environment are minimized. On completion of the project, there will be equitable access of clean and reliable water supply for the Manyatseng community and the still have enough water to meet the future demand. Mitigation and management measures that are outlined will ensure that no-one is adversely affected, particularly the vulnerable and disadvantaged individuals. The information obtained during the Basic Assessment and Water Use License Application will be reported to the Department of Economic development, Small Business, Tourism and Environmental Affairs, and Department of Water and Sanitation in a manner that will enable them to make an informed decision.

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.

The proposed development will enable the municipality to serve the Manyatseng community with clean potable water, therefore the needs of the people are placed at the forefront of Environmental management and it will serve their social interest. The sensitivity of the receiving environment has been taken into consideration and specialists' studies have been undertaken to ensure aspects related to the proposed development are addressed so that the negative impacts are localised and there will be no residual environmental degradation of the watercourse and general river system thus deteriorating the river health. During construction, there will be containers provided to contain general and construction waste and the contents thereof will be emptied to the registered landfill site in Ladybrand. All the legislation and regulations relevant to the proposed development will be complied with. The municipality will implement mitigation and management measures outlined in the environmental reports to ensure that the negative impacts are minimized and positive impacts ameliorated. Public participation process will be undertaken as part of the Basic Environmental Impact Assessment and Water Use License Process. The new water supply will be used optimally and serve the interest of all the water users within the Manyatseng, thus satisfy their basic human needs. Given the above, it is evident that the principles of Environmental Management will be integrated in the decision-making by both competent authorities.

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
The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996)	Chapter 2-Bill of Rights Section 10: Right for the dignity to be respected Section 24: Environmental Right Section 27(1)(b): Right of access to enough water The provision of water as a result of the proposed development would ensure the constitutional right of Manyatseng residents is not infringed. Section 32: Right to access of Information During the public participation process, information regarding the proposed development would be made available and no-one will be prohibited from accessing the environmental report because it will be circulated to registered and identified Interested and Affected Parties.	Government of South Africa	04 February 1997
National Environmental Management Act (Act 107 of 1998)	Chapter 1-National Environmental Management Principles Section 2: National Environmental management principles. Chapter 5-Integrated Environmental Management Section 24: Environmental Authorisation (control of activities which may have a detrimental effect on the environment). Chapter 7: Compliance and Enforcement Section 28: Duty of care and remediation of environmental damage.	Department of Environmental Affairs	29 January 1999

	Section 29: Protection of workers refusing to do environmentally hazardous work. Measures must be in place to ensure activities that are to be undertaken during the duration of this project would not result in environmental degradation. The environmental legislation must be complied with, and no-one must be exposed to hazardous working conditions during the various phases of project implementation, especially construction.		
Environmental Impact Assessment Regulation, 2014 as amended	Listing Notice 1 of 2014 (GNR 387) – which set out activities which require undertaking of Basic Assessment process before an Environmental Authorisation may be issued	Provincial Environmental Affairs-DESTEA	07 April 2017
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	Chapter 4-Air Quality Management. Measures Section 32: Control of Dust Section 34: Control of Noise. Measures must be in place to control excessive generation of dust and noise during the construction phase.	Department of Environmental Affairs	11 September 2005
National Environmental Management: Biodiversity Act (Act 10 of 2004)	Chapter 5-Species and organisms posing threat to the Biodiversity Section 75: Control and eradication of Listed Alien Invasive Species To ensure measures are in place to eradicate and control establishment of alien invasive species along the proposed route.	Department of Environmental Affairs	01 September 2004
National Environmental Management: Waste Act (Act 59 of 2008)	Chapter 4-Waste Management Measures Section 21: General Requirements for Storage of Waste Section 26: Prohibition of unauthorised disposal Section 27(2)(a): Littering To ensure waste generated is	Department of Environmental Affairs	01 July 2009

	handled and disposed efficiently in a way that it would not pollute the receiving environment.		
National Water Act (Act No. 36 of 1998)	Chapter 3 – Protection of Water Resources. Section 19 – Prevention and remedying effects of pollution. Section 20 – Control of emergency incidents. Chapter 4 – Use of Water Section 21: Licensing of Water Uses To ensure measures are in place to prevent pollution of the wetland and Sand River, which will be crossed by the proposed pipeline and sewer pipe bridge. A water use license be obtained for the water uses that are triggered by the proposed development.	Department of Water and Sanitation	06 December 1999
Conservation of Agricultural Resources Act (Act No. 43 of 1983)	Section 5: Prohibition of spreading of weeds. Section 6(e)(f)(j)(l): Control Measures To ensure there are measures in place to control spreading of weeds within the proposed site and surrounding environment.	Department of Agriculture, Forestry and Fisheries	01 June 1984
Occupational Health and Safety Act (Act 15 of 1993)	Provisions for Occupational Health & Safety in the workplace.	Department of Labour	23 June 1993
Water Services Act, 1997 (Act No 108 of 1997)	Chapter 1 Section 3(1): Right of access to basic water supply and basic sanitation To provide for the rights of access to basic water supply and basic sanitation Chapter 3 Section 11(1) Duty to provide access to water services The proposed development will enable Mantsopa Local Municipality, to provide water to the Manyatseng community as Water Services provider within the municipal area.	Mantsopa Local Municipality	19 December 1997

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	YES ■
If YES, what estimated quantity will be produced per month?	It is not possible to estimate the amount of solid waste that will be generated during the construction phase, as spoil material from the trenches may vary greatly and little general solid waste will be generated.

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

Refuse bins with lids will be provided in the construction site and when full it will be transported from the site to the registered solid waste site for disposal. The engineer will indicate how the spoil material from excavations and other construction activities will be disposed or used.

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

Construction solid waste will be disposed of at the registered solid waste site in Ladybrand.

Will the activity produce solid waste during its operational phase?	■ **NO**
If YES, what estimated quantity will be produced per month?	m^3

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?	NO

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?	NO

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?	NO
If YES, what estimated quantity will be produced per month?	m^3
Will the activity produce any effluent that will be treated and/or disposed of on site?	NO

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?	NO

If YES, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:			
E-mail:			

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

Due to the nature of the proposed project, no wastewater that could be recycled 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 that exhaust emissions and dust associated with construction phase activities?	**YES**		
If YES, is it controlled by any legislation of any sphere of government?		**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 emission will be from construction vehicles, the carbon monoxide from the cars will be in exceptionally low quantities therefore negligible. However, construction vehicles would be kept in a good working condition. There will be excessive generation of dust from construction related activities, which is temporarily, and measures will be in place to ensure that it is controlled and does not cause any harm to human health or well-being. The nearest sensitive receptor that could be affected by the dust generation is the Church Street road users and pedestrians, as this could reduce visibility on the road and nuisance but with the adoption of the outlined mitigation measures, the probability is very low and impact would be significantly reduced.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?		**NO**

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

Describe the noise in terms of type and level:

The noise that will be generated will be associated with construction activities, e.g., excavation, earthmoving, drilling, pumping, movement of construction machinery and equipment, however, these activities would be during normal working hours. Potential sensitive receptors within close proximity of the construction site are the Church Street road users and pedestrians travelling daily between Manyatseng and Ladybrand. However, mitigation measures would be put in place to control noise emissions to acceptable standards.

13. WATER USE

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

Municipal					

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:	N/A litres
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?	YES

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

Pre-application is lodged online using the e-WULAAS portal.

14. ENERGY EFFICIENY

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

The pipe has been designed in a way that it gravitates, therefore, would not require any pumpstation during operation. This will ensure municipality does not incur additional costs for maintenance and operation of a pumpstation during operation of the pipeline.

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

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

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

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

3. Has a specialist been consulted to assist with the completion of this section? **YES** [ ]

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed 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 Mofutsanyana District
Local Municipality	Mantsopa Local Municipality
Ward Number(s)	3/7
Farm name and number	Remaining Extent of the Farm Dorp Gronden van Ladybrand 451
Portion number	-
SG Code	F02100000000045100000

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:	Donga

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? [redacted] **NO**

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	**1:50 – 1:20**	[redacted]

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

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

2. LOCATION IN LANDSCAPE

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

2.1 Ridgeline		2.4 Closed valley		2.7 Undulating plain / low hills	
2.2 Plateau		2.5 Open valley		2.8 Dune	
2.3 Side slope of hill/mountain		**2.6 Plain**	**X**	2.9 Seafront	
2.10 At sea					

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**	[redacted]	
Dolomite, sinkhole or doline areas	YES	**NO**		
Seasonally wet soils (often close to water bodies)	**YES**	NO		

30

Unstable rocky slopes or steep slopes with loose soil	YES	**NO**
Dispersive soils (soils that dissolve in water)	YES	**NO**
Soils with high clay content (clay fraction more than 40%)	**YES**	NO
Any other unstable soil or geological feature	YES	**NO**
An area sensitive to erosion	**YES**	NO

[redacted]

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

4. GROUNDCOVER

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

Natural veld - good condition[E]	**Natural veld with scattered aliens[E]**	[redacted]
[redacted]		**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.

The Ecological Report is attached hereto as **Appendix D1**.

5. SURFACE WATER

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

	YES
Non-Perennial River	**YES**
Permanent Wetland	
Seasonal Wetland	
Artificial Wetland	**YES**
Estuarine / Lagoonal wetland	

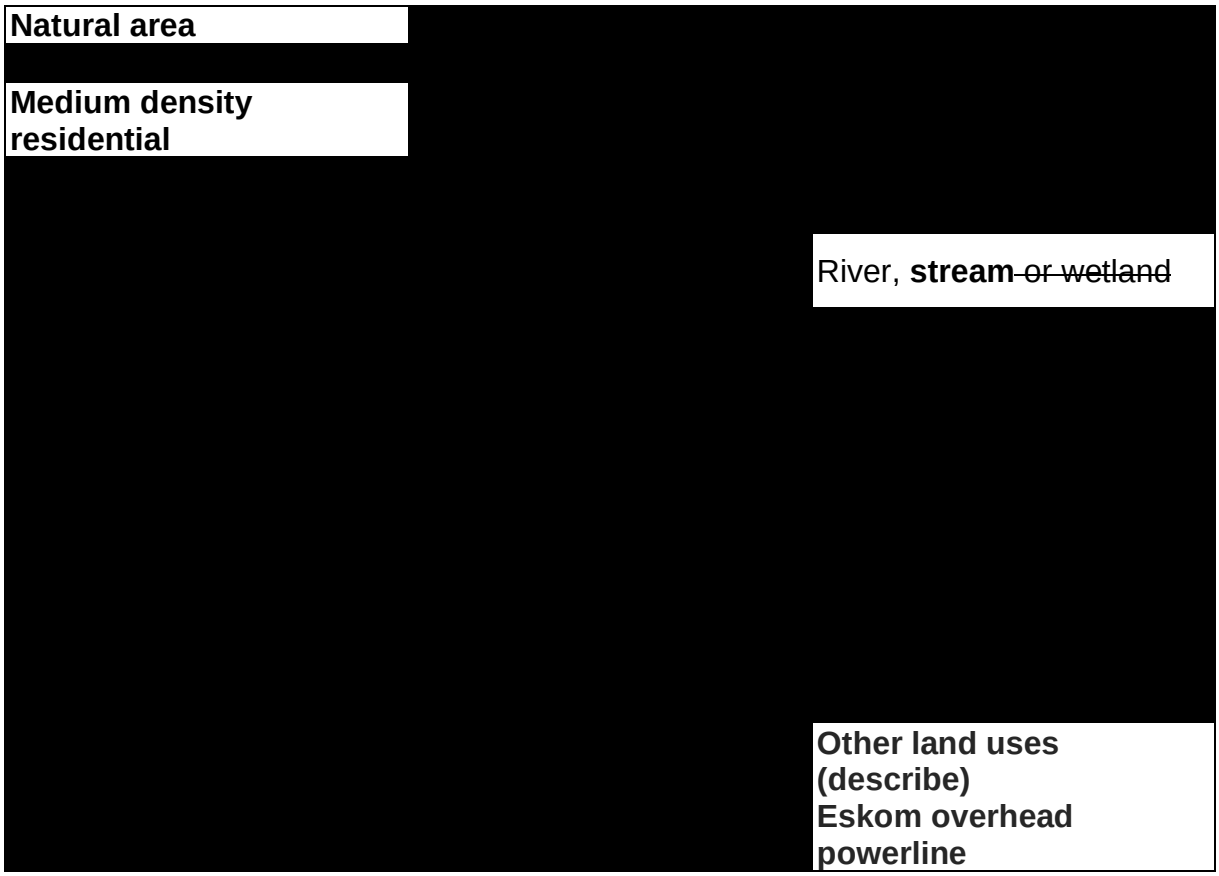
If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

The assessment area, a significant fourth-order seasonal watercourse falls within the Upper Vaal Catchment Management Area (D22H). It flows in an easterly direction and further joins a number of other significant watercourses, which eventually all discharge into the Caledon River, situated approximately 6.2km east of the proposed site. Therefore, it forms an important part of the local and broader Quartenary surface water catchment and drainage area towards the east. The watercourse does not necessarily possess a distinct riparian zone due to the lack of continuous water flow through the local area. The main active streamflow channel of the watercourse, however, constitutes aquatic vegetation and an associated aquatic habitat. Significant localised contamination of the watercourse is however evident, in the form of continued raw sewage leaks and discharges from the local township.

The initial portion of the pipeline route traverses a small portion with an associated semi-aquatic habitat. However, evident that the origin/source of this wetland portion is solely as a result of a significant long-term underground water pipeline leakage and this presumption is supported by a Google Satellite Imagery of the area that it was formed artificially/anthropogenically. The artificial wetland does not provide important ecological services to the local and broader Quartenary surface water catchment and drainage towards the east.

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:



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:

N/A

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

N/A

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

N/A

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

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

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

7. CULTURAL/HISTORICAL FEATURES

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

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:

There are no aboveground signs of graves or graveyards observed. The impact on potential in-situ archaeological material, pre-historic structures, rock engravings or graves in the affected area is considered unlikely. The archaeological component of the linear development footprint is assigned a site rating of Generally Protected C.

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

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

]

The Heritage Assessment Report is attached hereto as **Appendix D2**.

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:

The unemployment rate in 2016 was at 29.20%. The municipality has a high dependency ration, which increased slightly by 0.6% from 2011 to 2016.

Economic profile of local municipality:

The local economy is largely commercial farming, followed by private business and the public sector. In Ladybrand/Manyatseng, tourism also plays a role in the local economy, e.g., Lekhalong la Mantsopa. There is a limited number of light industries located in town and a total of 25 industrial sites at the western end of town alongside the railway station and east of Mauersnek.

Level of education:

In 2011, 4.80 percent of the population completed their higher education and 2.60% completed matric. Only a small percentage of the population has no schooling.

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R 355 085-59
What is the expected yearly income that will be generated by or as a result of the activity?	N/A
Will the activity contribute to service infrastructure?	YES
Is the activity a public amenity?	YES
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	10
What is the expected value of the employment opportunities during the development and construction phase?	R35 000-00
What percentage of this will accrue to previously disadvantaged individuals?	30%
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?	R0
What percentage of this will accrue to previously disadvantaged individuals?	N/A

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)~~	N/A
The entire assessment area is categorised as Degraded Land				

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		
Near Natural (includes areas with low to moderate level of alien invasive plants)	90	There is significant localised contamination of the watercourse, in the form of continued raw sewage leaks and discharges from the local township. Due to the lack of continuous waterflow through the local area, the watercourse does not necessarily possess a distinct riparian zone.
Degraded (includes areas	10	There is erosion evident in the banks of the

heavily invaded by alien plants)		watercourse
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	-	

c) Complete the table to indicate:

(i) the type of vegetation, including its ecosystem status, present on the site; and

(ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		**Aquatic Ecosystems**					
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	**Vulnerable**	**Wetland (including rivers, ~~depressions, channelled and unchanneled wetlands, flats, seeps pans, and~~ artificial wetlands)**					
		YES					

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

The area falls within the Eastern Free State Clay Grassland Vegetation Type (Gm 3), which is classified as vulnerable. The localised and broader surrounding landscape is categorized as a Degraded land, in accordance with the Free State Provincial Spatial Biodiversity Plan, 2018. The assessment area, which i a single significant fourth order seasonal watercourse, falls within D22H Quartenary surface water catchment and drainage area. There is significant localised contamination of the watercourse is however evident, in the form of continued raw sewage leaks and discharges from the local township. Due to the lack of continuous water flow through the local area, the watercourse does not necessarily possess a distinct riparian zone. There is an artificial wetland on the initial southern portion of the proposed pipeline route, with an associated semi-aquatic habitat. However, it currently provides no important ecological services to the local and broader Quartenary surface water catchment and drainage towards the east. Although, it is visibly evident that the origin/source of the wetland portion is solely as a result of a significant long-term underground water pipeline leakage

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Maluti News	
Date published	29 October 2021	
Site notice position	**Latitude**	**Longitude**
	29˚10'52.09''	27˚28'9.25''
Date placed	29 October 2021	

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

Proof of Newspaper Advertisement, On-Site 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 326

The measures that were undertaken to include the potential I&APs are as follows:

The on-site notice was placed at the watercourse crossing site and thereafter posters were placed at the library in Manyatseng, and the Municipal office. The Background Information Document was sent to the identified key stakeholders including commenting authorities. However, no public meetings were held as no one registered as an interested and affected party, and no concerns/objections were received.

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 326

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Cllr. Tigeli	Ward Councillor	0783099725 tigeli.za@gmail.com

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

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

The Background Information Document was emailed to the Ward Councillor, Cllr. Tigeli, but no read receipt was received. However, telephonic discussions were also held with regards to the application and there are no concerns regarding the proposed development.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES (

(**No issues were received during the notification phase of the Public Participation Process, none during the review of the Draft Basic Assessment Report only comments from SAHRA)**

Summary of main issues raised by I&APs	**Summary of response from EAP**
No issues were raised, SAHRA outlined conditions that were included in the EMPr and indicated that they are in support of the recommendation made by the Heritage Specialist regarding the appointment of a Palaeontologist during construction phase to monitor excavations.	No response required

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.

Although no comments were received from the notification phase of the initial Public Participation Process, the Draft BAR was distributed to the identified I&APs and comments were received from SAHRA. Comments and Responses Report is contained under **Appendix E3** of Appendix E.

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
DESTEA	Mr. Vakaliso Hlazo	051 400 4804	051 400 4842	hlazov@destea.gov.za	Private Bag X20801 Bloemfontein 9300
Mantsopa Local Municipality	Ms. Motshilisi Lesoetsa	051 924 0654	058 303 4703	mmsecretary@mantsopa.co.za	P.O Box 64 Ladybrand 9745
Eskom	Ms R. De Bruin	051 404 2467	051 404 5759	dbruiner@eskom.co.za	P.O Box 356 Bloemfontein 9300
	Ms. Mahlatse Moeng	051 404 2287	-	MoengMK@eskom.co.za	
Department of Water and Sanitation	Mr George Nel	051 405 9000	051 430 8146	NelG@dws.gov.za	P.O. Box 528 Bloemfontein 9300
	Mr. Vernon Blair			blairv@dws.gov.za	
SAHRA	SAHRIS Submission				

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

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

Although e-mail notifications were sent to commenting authorities and Organs of State, no read confirmations or undelivered messages were received.

6. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

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

No-one registered as an I&APs.

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

Copies of e-mail correspondence are attached hereto **Appendix E6**.

SECTION D: IMPACT ASSESSMENT

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

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

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

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
PLANNING AND DESIGN PHASE			
Adherence to applicable Environmental Legislation	***Direct impacts:***	**High**	**Appendix 7**
	Indirect impacts		
	Cumulative impacts		
Socio-economic- Employment of local labourers during construction	***Direct impacts:***	**Low**	**Appendix 7**
	Indirect impacts:		
	Cumulative Impacts		

Activity	*Impact Summary*	Significance	Proposed Mitigation
CONSTRUCTION PHASE			
Destruction/Damage of riparian vegetation	***Direct impacts:***	**Low**	**Appendix 7**
	Indirect impacts:		
	Cumulative impacts:		
Transformation of riparian vegetation	***Direct impacts:***		
	Indirect impacts:	**Low**	**Appendix 7**
	Cumulative impacts:		
Increased risk of soil erosion	***Direct impacts:***		
	Indirect impacts:	**Medium**	**Appendix 7**
	Cumulative impacts:		
Spread of alien invasive species	***Direct impacts:***		
	Indirect impacts:	**Medium**	**Appendix 7**
	Cumulative impacts:		
Contamination of the watercourse due to the spillages and leakages from construction equipment and vehicles	***Direct impacts:***	**Medium-High**	**Appendix 7**
	Indirect impacts:		
	Cumulative impacts:	**Medium-High**	**Appendix 7**
Disturbance to the watercourse characteristics due to construction activities	***Direct impacts:***	**Medium-High**	**Appendix 7**
	Indirect impacts:		
	Cumulative impacts:	**Medium**	**Appendix 7**
	Indirect impacts:		
	Cumulative impacts:		
Impact on the flow of traffic on Church Street	***Direct impacts:***	**Low**	**Appendix 7**
	Indirect impacts:		
	Cumulative impacts:		
Impact on the Heritage Artefacts	***Direct impacts:***	**High**	**Appendix 7**
	Indirect impacts:		
	Cumulative impacts:		

No-go option			
Water shortages in the Manyatseng area as the municipality will not be able to supply potable water and this could result in social unrests	***Direct impacts:***	**Medium-High**	The water shortages in the area will be curbed by the proposed pipeline. Therefore, the no-go alternative is deemed not feasible.
	Indirect impacts:		
	Cumulative impacts:		

Impacts are associated with the operational phase are not included because the proposed pipeline is aboveground thus will not impede the waterflow, but maintenance must be done in an environmentally sensitive manner. Cumulative impacts due to the proposed development are limited because there are no similar projects taking place within the vicinity of the proposed site except for the existing road traffic bridge and the existing pipeline. Although the characteristics of the watercourse will be impacted, its integrity and functionality will be restored after rehabilitation. The development will not have any impact on the existing land uses.

A complete impact assessment in terms of Regulation 19(3) of GN 326 must be included as Appendix F.

The 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)

Mantsopa Local Municipality is unable to meet the current water demand in Manyatseng, thus needs to upgrade their bulk water network. Hence a need for a new bulk water pipeline to connect Manyatseng to the existing bulk water network so that they are able to provide sufficient water for the community of Manyatseng. Although the proposed bulk water pipeline is below the EIA threshold, the portion of the pipeline before the Manyatseng connection point, it must cross a significant fourth-order seasonal watercourse, therefore a steel pipe bridge must be constructed to carry the proposed pipeline across. The pipeline also crosses an artificial wetland and two stormwater flow channels because the system must be a

gravity-feed.

The construction impacts will be adequately mitigated to minimize the impacts on watercourses and vegetation removal thus of low significance, localised, short term and restricted to the development footprint. There will be temporary creation of employment, which will benefit then local economy, therefore, it is imperative that local procurement be prioritized. Good construction practise and effective site supervision must be in place. From the specialist studies conducted, no grounds were founded to suspend the proposed development and recommendations were outlined to minimize the impact.

Given the required footprint to lay the pipeline, construction activities would be limited to the narrow section and with the necessary mitigation measures implemented during the construction phase, the impacts will be greatly minimized and furthermore rehabilitation will be done immediately on completion of construction activities to ensure that the impacted areas can return to their former function.

If the proper mitigation procedures are followed during the construction phase, the residual impacts on the environment during the operational phase will be insignificant and limited. The impacted environment will be able to return to normal on completion of rehabilitation phase and the likelihood of any environmental degradation post-construction will be reduced significantly. The operational impact will result in an environmental benefit due to fact the Manyatseng community will be provided with sufficient water supply. To address the ongoing contamination of raw sewage in the watercourse, it is crucial that the municipality take immediate steps to locate and remedy the contamination.

It is therefore recommended that the proposed construction of a pipe bridge to carry the bulk water pipeline go ahead as planned.

Alternative B

Alternative C

No-go alternative (compulsory)

If the construction of the pipeline does not take place, the Mantsopa Local Municipality will not be able to provide the basic need of water to the Manyatseng community and therefore, they will be on breach of their constitutional mandate as the local authority and Water Services Authority.

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	

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.

- Monitoring by a professional Palaeontologist must be in place during construction.
- A provincial permit must be obtained from DESTEA for the removal of provincially protected species *Helichrysum rugulosum* prior to construction. (Applicable to the pipeline route)
- An Alien Invasive Species Establishment and Management Prevention Plan compiled by a qualified and professionally registered Ecologist must be implemented.
- An Environmental Control Officer must be appointed prior to commencement of construction activities. Construction monitoring must include but not limited to the following:
    - Temporary obstruction of access
    - Traffic management
    - Noise and dust
    - Worker's and public's health and safety
    - Security of the excavations
    - Onsite material storage
- Construction material for bedding must be obtained from a commercial quarry or if a borrow pit will be used, then it must have a mining permit issued by the Free State Department of Mineral Resources.
- The construction footprint must be cordoned off to ensure activities are limited to the linear development footprint.
- Adequate erosion management measures and active gully filling will have to be implemented on area with problematic erosion, in order to repair the existing erosion and combat future erosion in that specific area.
- If heritage resources are uncovered during the course of the development, a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the heritage resource. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA.

- If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Sityhilelo Ngcatsha/Phillip Hine 021 462 5402) must be alerted as per section 35(3) of the NHRA. Non-compliance with section of the NHRA is an offense in terms of section 51(1)e of the NHRA and item 5 of the Schedule.
- If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/Ngqalabutho Madida 012 320 8490), must be alerted immediately as per section 36(6) of the NHRA. Non-compliance with section of the NHRA is an offense in terms of section 51(1)e of the NHRA and item 5 of the Schedule.
- Impacted areas must be rehabilitated immediately when construction activities cease, therefore a Rehabilitation Plan must be compiled and reviewed by an Environmental Control Officer.
- Impacted watercourse must be monitored for 12 months post rehabilitation for potential erosion.

Is an EMPr attached? **YES**

The EMPr must be attached as Appendix G.

The 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.

The details of the EAP and expertise are contained in the CV 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.

The Declaration of Interest for the Specialists are attached hereto as **Appendix I**.

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

Additional Information that is attached hereto as **Appendix J** is the Technical Report and watercourse crossing methodology.

Lorato Tigedi Reg. EAP (EAPASA) *Pr. Sci. Nat.*
NAME OF EAP

SIGNATURE OF EAP

2022-03-14
DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s) Designs of the Infrastructure

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-Technical Report and Watercourse Crossing Methodology

APPENDIX A

MAPS AND PLAN

APPENDIX A1

LOCALITY MAP

APPENDIX A2

ROUTE PLAN

APPENDIX A3

SENSITIVITY MAP

APPENDIX B

PHOTOGRAPHS

APPENDIX C

FACILITY ILLUSTRATION (DESIGN DRAWINGS)

APPENDIX D

SPECIALISTS' REPORTS

APPENDIX D1

SPECIALIST' REPORT
(Ecological Report)

APPENDIX D2

SPECIALIST' REPORT
(Heritage Report)

APPENDIX E

PUBLIC PARTICIPATION RECORDS

APPENDIX F

IMPACT ASSESSMENT

APPENDIX G

DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

APPENDIX H

DETAILS OF EAP AND EXPERTISE (CV OF EAP)

APPENDIX I

DECLARATION OF SPECIALISTS

APPENDIX I1

DECLARATION OF SPECIALIST (ECOLOGIST)

APPENDIX I2

DECLARATION OF SPECIALIST (HERITAGE SPECIALIST)

APPENDIX J

OTHER: TECHNICAL DOCUMENTATION

APPENDIX J1

TECHNICAL REPORT

APPENDIX J2

WATERCOURSE CROSSING METHODOLOGY