

THE PROPOSED ESTABLISHMENT OF AN APPROXIMATELY 72KM LONG BULK WATER SUPPLY PIPELINE WITHIN THE ROAD RESERVE OF THE R27 REGIONAL ROAD FROM THE SOAFSKOLK TURNOFF TO A RESERVOIR IN BRANDVLEI



Draft Basic Assessment Report

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	(For official use only)
File Reference Number:	
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Date Received:	

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

Kindly note that:

- 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 competent authority for the activity that is being applied for.
- It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
- 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.
- Where applicable **tick** the boxes that are applicable in the report.
- An incomplete report may be returned to the applicant for revision.
- 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.
- This report must be handed in at the offices of the relevant competent authority as determined by each authority.
- No faxed or e-mailed reports will be accepted.
- The signature of the EAP on the report must be original.
- The report must be compiled by an independent environmental assessment practitioner.
- 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 request report, during any stage of the application process.
- A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
- 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.

SECTION A: ACTIVITY INFORMATION

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

YES	NO
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If YES, please complete the form titled "Details of specialist and declaration of interest" for the specialist appointed and attach it in Appendix I.

1) ACTIVITY DESCRIPTION

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

The development proposal entails the establishment of a bulk water supply pipeline of approximately 72km in length and approximately 0.35m in diameter within the road reserve of the R27 Regional Road, from the Soafskolk turnoff to a water reservoir in Brandvlei.
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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, EIA Regulations of 2014 (as amended)	Description of project activity
GN 327 Listing Notice 1	
<p>Item 9, i.e., “The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water—</p> <p>(i) with an internal diameter of 0,36 metres or more; or</p> <p>(ii) with a peak throughput of 120 litres per second or more; excluding where—</p> <p>(a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or</p> <p>(b) where such development will occur within an urban area”.</p>	<p>The proposed development requires that a pipeline of more than 1000m for the bulk transportation of water be installed and the internal diameter of the pipeline exceeds 0.36m. In addition, the location of the approximately 72km proposed pipeline is largely outside urban areas.</p>
<p>Item 12, i.e., “The development of;</p> <p>(iv) dams, where the dam, including infrastructure and water surface area, exceeds 100 square metres in size;</p> <p>(xii) infrastructure or structures with a physical footprint of 100 square metres or more;</p> <p>where such development occurs;</p> <p>(a) within a watercourse;</p> <p>(b) in front of a development setback; or</p> <p>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;</p> <p>— excluding—</p> <p>(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</p> <p>(bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;</p> <p>(cc) activities listed in Activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</p> <p>(dd) where such development occurs within an urban area;</p> <p>(ee) where such development occurs within existing roads, road reserves or railway line reserves; or</p> <p>(ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared”.</p>	<p>The proposed development includes infrastructure with a total development footprint bigger than 100m² within 100m of some watercourses</p>
<p>Item 19, i.e., “The infilling or depositing of any material of more than 10 cubic meters into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic meters from a watercourse”</p>	<p>The establishment of the proposed pipeline requires the moving of more than 10m³ of material within 32m of watercourses.</p>
GN 324 Listing Notice 3	
<p>Item 12, i.e., “The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous</p>	<p>The establishment of the proposed pipeline requires that more than 300m² of indigenous vegetation be cleared along the pipeline route within certain areas categorised as Critical Biodiversity Area.</p>

<p>vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>g. Northern Cape</p> <p><i>i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</i></p> <p><i>ii. Within critical biodiversity areas identified in bioregional plans;</i></p> <p><i>iii. Within the littoral active zone or 100 metres inland from high-water mark of the sea or an estuary, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; or</i></p> <p><i>iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning”.</i></p>	
<p>Item 14, i.e., “The development of—</p> <p><i>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or</i></p> <p><i>(ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs—</i></p> <p><i>(a) within a watercourse;</i></p> <p><i>(b) in front of a development setback; or</i></p> <p><i>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour</i></p> <p>g. Northern Cape</p> <p><i>i. In an estuary;</i></p> <p><i>ii. Outside urban areas:</i></p> <p><i>(aa) A protected area identified in terms of NEMPAA, excluding conservancies;</i></p> <p><i>(bb) National Protected Area Expansion Strategy Focus areas;</i></p> <p><i>(cc) World Heritage Sites;</i></p> <p><i>(dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</i></p> <p><i>(ee) Sites or areas identified in terms of an international convention;</i></p> <p><i>(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</i></p>	<p>The proposed pipeline requires that infrastructure with a development footprint exceeding 10m² be established within 32m of some watercourses along the pipeline route.</p>

<p><i>(gg) Core areas in biosphere reserves;</i> <i>(hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve;</i> <i>(ii) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined; or</i></p> <p><i>iii. Inside urban areas:</i> <i>(aa) Areas zoned for use as public open space;</i> <i>(bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, zoned for a conservation purpose; or</i> <i>(cc) Areas seawards of the development setback line”.</i></p>	

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), 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 accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The coordinates 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.

The establishment of the proposed bulk water supply pipeline will provide construction employment opportunities, thereby helping to somewhat alleviate the unemployment situation in the administrative area of the Hantam Local Municipality. The proposed bulk water supply pipeline will lower vulnerability to future droughts in the town of Brandvlei and provide greater availability of water

for the municipality to eradicate undignified bucket system toilets in the informal settlements of the area during the operational phase.

This is in line with the National Development Plan for 2030¹ in that the National Development Plan is intended to *inter alia*, result in a healthy population and effective greater social protection and is also intended to eliminate poverty and reduce inequality.

Need and Desirability

The establishment of the proposed bulk water supply pipeline will provide construction employment opportunities, thereby helping to somewhat alleviate the unemployment situation in the administrative area of the Hantam Local Municipality. The construction phase of the proposed pipeline will also result in an increase in business in the local area, as much of the building materials for the proposed pipeline will be sourced from suppliers in Brandvlei and the nearby surrounding area.

The additional bulk water to be supplied by the proposed pipeline will lower the vulnerability of Brandvlei to future droughts and make more water available for the Hantam Local Municipality to replace the undignified bucket system toilets in the informal settlements of the area with water system toilets.

The improvement in drought resilience in Brandvlei will make the town more appealing to investors and this will facilitate economic development in the town.

In addition, the potential negative terrestrial ecological impacts, freshwater ecological impacts, heritage-related impacts, socio-economic impacts, visual impacts and impact on birds and mammals will remain low when the EMPr and recommendations contained in the specialist reports are implemented.

In view of the above, the establishment of the approximately 72km proposed bulk water supply pipeline to Brandvlei is highly desirable.

a) Site alternatives

The proposed site for the pipeline is the road reserve of the R27 Regional Road, starting from the Soafskolk turnoff and extending approximately 72km to a water reservoir in the town of Brandvlei.

The potential negative environmental impacts of establishing the proposed pipeline within the road reserve of the R27 Regional Road will remain low as a result of the implementation of the recommendations specified in the specialist reports attached to this Draft BAR and the implementation of the EMPr and conditions of environmental authorisation. These potential negative impacts will be lower than for any other possible pipeline route, as the preferred route alternative is located within a road reserve, is largely straight and is therefore short. In addition, the positive socio-economic impacts of augmenting the water supply of Brandvlei via the proposed water supply pipeline are major.

In view of the above, the proposed site is the preferred site alternative and is the only site alternative that the Applicant has considered.

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

¹National Development Plan, 2030. Accessed at <https://www.gov.za/sites/default/files/Executive%20Summary-NDP%202030%20-%20Our%20future%20-%20make%20it%20work.pdf>

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

Please refer to Appendix A3 for the coordinates.

b) Route alternatives

The development proposal entails establishing a bulk water supply pipeline from the Soafskolk turnoff to a reservoir in the town of Brandvlei. The Preferred Pipeline Route is within the road reserve of the R27 Regional Road. Road reserves are set aside for future road widening and so keeping to the Preferred Pipeline Route means that environmental damage associated with establishing the proposed pipeline will be largely contained within an area set aside for such environmental damage. All other pipeline route alternatives would require environmental disturbance to take place in areas that are not earmarked for such damage. It is therefore unlikely that any significant advantage may be gained by investigating different pipeline route alternatives. In view of this, the Preferred Pipeline Route is the only route alternative that has been considered.

c) Design alternatives

N/A

Alternative 1 (preferred alternative)
See "ACTIVITY DESCRIPTION" in this Draft BAR.

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

NA

Alternative 1 (preferred alternative)		
N/A		
Alternative 2		
N/A		
Alternative 3		
N/A		

e) No-go alternative

The no-go alternative entails maintaining the *status quo*. This means that in spite of the anticipated low terrestrial biodiversity, freshwater ecological and heritage-related impacts, the Applicant would not establish the proposed bulk water supply and the significant social and economic benefits that are expected from establishing the proposed pipeline would not materialise.

In light of the major need to augment the water supply in the administrative area of the Hantam Local Municipality Area as is stated in the IDP of the municipality, adopting the 'no-go' alternative would be highly undesirable. The 'no-go' alternative should therefore be discarded and the preferred alternative should be authorised by the competent authority.

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

Size of the activity:

or, for **linear activities**: N/A

- Alternative A1 (preferred activity alternative)

Length of the activity:

≈72km

- Alternative A1 (preferred activity alternative)
- Alternative A2 (if any)
- Alternative A3 (if any)
- Alternative A4 (if any)

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

- Alternative A1 (preferred activity alternative)

Length of the activity:

m ²

- Alternative A1 (if any)
- Alternative A2 (if any)
- Alternative A3 (preferred activity alternative)
- Alternative A4 (if any)

4) SITE ACCESS

Does ready access to the site exist?

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

YES	NO

Describe the type of access road planned:

Access from the R27 Regional Road exists.

Include the position of the access road on the site plan and required map, as well as an indication of the road about 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 coordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The coordinates 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).

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.

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.

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.

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.

10) ACTIVITY MOTIVATION

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

<ul style="list-style-type: none"> Is the activity permitted in terms of the property's existing land use rights? 	YES	NO	Please explain
It is the norm for pipelines and telephone lines and other infrastructure to be built underground within road reserves in a servitude.			
<ul style="list-style-type: none"> Will the activity be in line with the following? 			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
The proposed pipeline is too small to have any bearing on the PSDF.			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
The proposed pipeline is too small to have any bearing 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?).	YES	NO	Please explain

The proposed site is the road reserve of the R27 Regional Road. The establishment of the proposed pipeline within the road reserve of the R27 Regional Road will be compatible with any future road widening work that may be implemented within the road reserve of the R27 Regional Road.

The proposed development will create employment opportunities (as advocated for in the 2022/2023 IDP of the Hantam Local Municipality) that will be of significant economic and social benefit in the local area, while the negative anticipated terrestrial and freshwater ecological impacts as well as heritage-related impacts will remain low when the EMPr and the recommendations contained in the specialist reports are implemented.

(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
The proposed water supply pipeline within the road reserve of the R27 Regional Road is a development proposal that is too small to have any bearing on the 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	NO	Please explain
No EMF is known to exist for the area.			

(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
The proposed pipeline is a development proposal that is too small to have a bearing on any Policies and Plans.			
<ul style="list-style-type: none"> 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	NO	Please explain
<p>It is stated in the 2022/ 2023 IDP of the Hantam Local Municipality that improving sanitation in the municipal area by replacing bucket-system toilets and pit latrines with water-system toilets is an important goal, especially in the informal settlements. The augmenting of the water supply in Brandvlei via the establishment of the proposed bulk water supply pipeline will make it easier for this goal to be achieved.</p> <p>In addition, augmenting the water supply to Brandvlei by establishing the proposed pipeline will help to ensure that the town and broader municipal area governed by the Hantam Local Municipality become less vulnerable to droughts such as the drought that recently necessitated disaster relief funds to be availed for drilling 13 boreholes so that the residents of Brandvlei could survive. In addition, the proposed development will create employment opportunities (as advocated for in the IDP of the Hantam Local Municipality) that will be of significant economic and social benefit in the local area, while the negative anticipated terrestrial ecological impacts, freshwater ecological impacts, heritage-related impacts, socio-economic impacts, visual impacts and potential negative impacts on birds and mammals will remain low when the EMPr and recommendations contained in the specialist reports are implemented.</p>			
<ul style="list-style-type: none"> Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategy as well as the local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.) 	YES	NO	Please explain
<p>It is stated in the 2022/ 2023 IDP of the Hantam Local Municipality that improving sanitation in the municipal area by replacing bucket-system toilets and pit latrines with water-system toilets is an important goal, especially in the informal settlements. The augmenting of the water supply in Brandvlei via the establishment of the proposed bulk water supply pipeline will make it easier for this goal to be achieved.</p> <p>In addition, augmenting the water supply to Brandvlei by establishing the proposed pipeline will help to ensure that the town and broader municipal area governed by the Hantam Local Municipality become less vulnerable to droughts such as the drought that recently necessitated disaster relief funds to be availed for drilling 13 boreholes so that the residents of Brandvlei could survive. In addition, the proposed development will create employment opportunities (as advocated for in the IDP of the Hantam Local Municipality) that will be of significant economic and social benefit in the local area, while the negative anticipated terrestrial ecology, freshwater ecology as well as heritage-related impacts will remain low when the EMPr and recommendations contained in the specialist reports are implemented.</p>			
<ul style="list-style-type: none"> Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be 	YES	NO	Please explain

<p>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>The proposed bulk water supply pipeline will not require municipal services.</p>			
<p>• 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>The Applicant is not a municipality and so the proposed bulk water supply pipeline is not included in the infrastructure planning of the municipality.</p>			
<p>• 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>N/A</p>			
<p>• 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>The proposed pipeline is to be established within the road reserve of the R27 Regional Road. This will help to ensure that the potential negative environmental impacts of the proposed development are largely contained within an area earmarked for such environmental impacts, namely, the road reserve of the R27 Regional Road. The proposed site is therefore well suited for the proposed development.</p>			
<p>• Is the development the best practicable environmental option for this land/site?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The proposed site is the road reserve of the R27 Regional Road and so access is readily available to and from the proposed site. The potential negative environmental impacts of the proposed development will be largely contained within the road reserve road where the environmental impacts of future road widening and similar activities have been taken into account. In addition, the Preferred Route Alternative within the road reserve is largely straight and is therefore shorter than other possible route alternatives.</p> <p>The potential negative impact on terrestrial biodiversity that is likely to result from establishing the proposed bulk water supply pipeline within the road reserve is of low significance as confirmed in the Terrestrial Biodiversity Compliance Statement attached hereto as Appendix D1. The potential negative impact on freshwater ecology is low as confirmed in the freshwater specialist report attached hereto as Appendix D2. The potential negative impact on cultural/ historical and paleontological aspects as a result of establishing the proposed bulk water supply pipeline is low as is indicated in the Heritage Impact Assessment attached hereto as Appendix D3. The potential negative impact socio-economic aspects is low as indicated socio-economic impact assessment report attached hereto as Appendix D4. The potential visual impact and loss of a sense of place is also of low significance, as the proposed bulk water supply pipeline will be placed underground and the trench backfilled thereafter.</p>			

<p>In light of the low ecological impacts likely when the proposed bulk water supply pipeline is established and the significant social and economic benefits that will be enjoyed in the town of Brandvlei that include <i>inter alia</i>, employment opportunities during the construction phase, lower vulnerability to droughts and greater availability of water for the municipality to eradicate undignified bucket system toilets in the informal settlements of the area during the operational phase.</p> <p>In view of the above, the proposed establishment of the bulk water supply pipeline of approximately 72km in length is deemed the Best Practicable Environmental Option.</p>			
<p>• Will the benefits of the proposed land use/development outweigh the negative impacts?</p>	YES	NO	Please explain
<p>The proposed site is the road reserve of the R27 Regional Road and so access is readily available to and from the proposed site. The potential negative environmental impacts of the proposed development will be largely contained within the road reserve road where the environmental impacts of future road widening and similar activities have been taken into account. In addition, the Preferred Route Alternative within the road reserve is largely straight and is therefore shorter than other possible route alternatives.</p> <p>The potential negative impact on terrestrial biodiversity that is likely to result from establishing the proposed bulk water supply pipeline within the road reserve is of low significance as confirmed in the Terrestrial Biodiversity Compliance Statement attached hereto as Appendix D1. The potential negative impact on freshwater ecology is low as confirmed in the freshwater specialist report attached hereto as Appendix D2. The potential negative impact on cultural/ historical and paleontological aspects as a result of establishing the proposed bulk water supply pipeline is low as is indicated in the Heritage Impact Assessment attached hereto as Appendix D3. The potential negative impact socio-economic aspects is low as indicated socio-economic impact assessment report attached hereto as Appendix D4. The potential visual impact and loss of a sense of place is low as indicated in Appendix 5 and the potential negative impact birds and mammals is low as indicated in the Animal Species Theme Compliance Statement attached hereto as Appendix D6.</p> <p>In light of the low ecological impacts likely when the proposed bulk water supply pipeline is established and the significant social and economic benefits that will be enjoyed in the town of Brandvlei that include <i>inter alia</i>, employment opportunities during the construction phase, lower vulnerability to droughts and greater availability of water for the municipality to eradicate undignified bucket system toilets in the informal settlements of the area during the operational phase.</p> <p>In light of the low negative environmental impacts that society is likely to face as a result of the establishment of the proposed bulk water supply pipeline within the road reserve of the R27 Regional Road and the significant benefits that society will enjoy, it is clear that the societal benefits that will result from the proposed bulk water supply pipeline far outweigh the potential negative impacts.</p>			
<p>• Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?</p>	YES	NO	Please explain
<p>It is highly unlikely that the granting of an environmental authorisation for the proposed establishment of the bulk water supply pipeline within the road reserve of the R27 Regional Road will set any kind bad precedent in the local municipal area, as it is clear that the potential negative environmental impacts of establishing the proposed bulk water supply are low and the potential social and economic impacts are significant.</p>			
<p>• Will any person's rights be negatively affected by the proposed activity/ies?</p>	Yes	NO	Please explain
<p>The potential negative impact of establishing the proposed bulk water supply pipeline on terrestrial biodiversity is of low significance, as is confirmed in the Terrestrial Biodiversity Compliance Statement attached hereto as Appendix D1. The potential negative impact of establishing the</p>			

<p>proposed bulk water supply pipeline on freshwater ecology is low as confirmed in the freshwater specialist report attached hereto as Appendix D2. The potential negative impact of establishing the proposed bulk water supply pipeline on cultural/ historical and paleontological aspects is low as indicated in the Heritage Impact Assessment (Appendix D3, refers). The potential negative impact of establishing the proposed bulk water supply pipeline on socio-economic aspects is low as indicated in the socio-economic assessment report attached hereto as Appendix D5. In addition, the potential impact of establishing the proposed bulk water supply pipeline will be low, as the pipeline will be placed underground in a trench and the trench backfilled afterwards.</p> <p>In light of the medium to low negative environmental impacts that society is likely to face as a result of the establishment of the proposed bulk water supply pipeline, the significant social and economic benefits that will be realised when the bulk water supply pipeline has been established during the operational phase in particular, it is clear that the benefits that will result from the proposed development far outweigh the potential negative impacts.</p> <p>A public participation process that meets the minimum legal requirements is being followed and should anybody express a concern that their legal rights stand to be violated, the concern raised will be dealt with appropriately.</p>			
<ul style="list-style-type: none"> • Will the proposed activity/ies compromise the “urban edge” as defined by the local municipality? 	YES	NO	Please explain
<p>The proposed bulk water supply pipeline is too small a development proposal to have any bearing on the urban edge of the municipality.</p>			
<ul style="list-style-type: none"> • Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)? 	YES	NO	Please explain
<ul style="list-style-type: none"> • What will the benefits be to society in general and the local communities? 			
<p>The proposed bulk water supply pipeline will result in significant social and economic benefits that will be enjoyed in the town of Brandvlei that include <i>inter alia</i>, employment opportunities during the construction phase, lower vulnerability to future droughts and greater availability of water for the municipality to eradicate undignified bucket system toilets in the informal settlements of the area during the operational phase.</p> <p>In view of the above, the proposed establishment of the bulk water supply pipeline of approximately 72km in length is deemed the Best Practicable Environmental Option.</p>			
<ul style="list-style-type: none"> • Any other need and desirability considerations related to the proposed activity? 	Please explain		
N/A			
<ul style="list-style-type: none"> • How does the project fit into the National Development Plan for 2030? 	Please explain		
<p>The establishment of the proposed bulk water supply pipeline will provide construction employment opportunities, thereby helping to somewhat alleviate the unemployment situation in the administrative area of the Hantam Local Municipality. The proposed bulk water supply pipeline will lower vulnerability to future droughts in the town of Brandvlei and provide greater availability of water for the municipality to eradicate undignified bucket system toilets in the informal settlements of the area during the operational phase.</p>			

This is in line with the National Development Plan for 2030² in that the National Development Plan is intended to *inter alia*, result in a healthy population and effective greater social protection and is also intended to eliminate poverty and reduce inequality.

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

The general objectives of Integrated Environmental Management, namely, to promote sustainable development through the integration of social, economic and ecological considerations as well as the maintenance of inter- and intra-generational equity have been taken into account through the following:

- The actual and potential impacts of the proposed activity on the environment, socio-economic conditions, and cultural heritage, relative to the proposed site have been identified and evaluated. The proposed mitigation measures, with a view to minimizing negative impacts on the environment, socio-economic conditions, and any cultural heritage, while maximizing benefits and promoting compliance with the principles of environmental management, were assessed.
- The potential environmental impacts of the establishing the proposed bulk water supply pipeline have been identified, assessed, and measures proposed to avoid or minimise the negative impacts.
- A public participation process that meets the minimum legal requirements has been followed for the Basic Assessment application to help ensure that the decision-making process takes into account the comments of members of the public and commenting authorities.
- The environmental features of the proposed site have been considered and evaluated in the management and decision-making of the activity. An EMPr has been compiled (Appendix G, refers) for the proposed establishment of the bulk water supply pipeline and associated infrastructure and in the EMPr, the potential impacts with impact avoidance and mitigation measures to be adhered to during the implementation phase are specified.

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

The principles of environmental management, as per Section 2 of the NEMA have been taken into account. The principles include:

Socio-economic development: People and their needs have been placed at the forefront while serving their physical, psychological, developmental, cultural, and social interests – the proposed bulk water supply pipeline is unlikely to cause an overall negative effect on people. The establishment of the proposed bulk water supply pipeline underground within the road reserve of the R27 Regional Road will provide construction phase opportunities, thereby helping to somewhat alleviate the problem of poverty that is caused by unemployment in the administrative area of the Hantam Local Municipality. The proposed bulk water supply pipeline will also make more water available for the Hantam Local Municipality for replacing undignified bucket-system toilets with flush toilets in the informal settlements that exist in the municipal area and the augmented water supply will also enable economic activity in the town of Brandvlei to become less vulnerable to future droughts.

- **Sustainable development:** Development must be socially, ecologically and economically sustainable. The potential negative environmental impacts associated with establishing the proposed bulk water supply pipeline are of Medium to Low significance as indicated by the terrestrial biodiversity specialist in the specialist report attached hereto as Appendix D1, freshwater specialist report attached hereto as Appendix D2, heritage impact specialist in the report attached hereto as Appendix D3 and socio-economic impact assessment report attached hereto as Appendix D4. The recommendations contained in the specialist reports are included in the EMPr and will be implemented to help ensure that the potential negative impacts identified in the said reports are avoided or minimised. The potential impacts of the proposed bulk water supply pipeline will be minimised further through the implementation of the impact avoidance and mitigation measures contained in the EMPr (Appendix G, refers). In

²National Development Plan, 2030. Accessed at <https://www.gov.za/sites/default/files/Executive%20Summary-NDP%202030%20-%20Our%20future%20-%20make%20it%20work.pdf>

this way, the benefits associated with establishing the proposed bulk water supply pipeline that have been detailed in this Draft BAR will be kept outweighing the potential negative impacts.

- **Transparent Public Participation Process:** The public participation process followed has given I&APs an opportunity to view and provide comment on the Draft BAR before the BAR is finalised and submitted. The decision of the competent authority will be forwarded to all I&APs so that whomsoever wishes to appeal the decision may appeal.

11) 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

List all legislation, policies and/or guidelines of any sphere of government that apply 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 National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations of 2014 (as amended)	Applications for environmental authorisation must comply with the requirements specified in the NEMA and in the EIA Regulations of 2014 (as amended)	Northern Cape Provincial Department of Agriculture, Environmental Affairs, Rural Development and Land Reform	This application
Integrated Environmental Management Information Series	Criteria to be used for evaluating the environmental impacts of the proposed activity during the NEMA EIA application process (a copy of the Integrated Environmental Management Information Series can be accessed at https://www.environment.gov.za/documents/strategies/integrated_environmentalmanagement_eim).	Northern Cape Provincial Department of Agriculture, Environmental Affairs, Rural Development and Land Reform	This application
Hanatam Local Municipality and Namakwa District Municipality	Municipal by-laws to be adhered to during the construction and operational phase.	Local and District Municipalities	Subsequent to any EA being granted for this application

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
-----	----

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

100m ³

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

The waste will be transported by truck to a licensed municipal waste disposal facility and discarded.

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

The licensed municipal solid waste disposal facility that the municipality decides on.

Will the activity produce solid waste during its operational phase?

YES	NO
-----	----

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

m³

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

--

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

--

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 at 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
-----	----

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
-----	----

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
-----	----

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

m³

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

YES	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?

YES	NO
-----	----

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 wastewater, if any:

N/A

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
YES	NO

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

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:

--

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
-----	----

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority - N/A

e) Generation of noise

Will the activity generate noise?

YES	NO
YES	NO

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

Describe the noise in terms of type and level:

Normal noise generated when a trench is excavated and a pipeline is laid therein and the trench is thereafter backfilled. The noise will not be close to any residential areas and so the noise will be of little nuisance to anybody.

13) WATER USE

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

Municipal	Waterboard	Groundwater	River, stream, dam or lake	Other	The activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

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.

14) ENERGY EFFICIENCY

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

The establishment of the bulk water supply pipeline will make use of a lot of manual labour.

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

The establishment of the bulk water supply pipeline will make use of a lot of manual labour.

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 titled "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	Northern Cape
	District Municipality	Namakwa District Municipality
	Local Municipality	Hantam Local Municipality
	Ward Number(s)	
	Erf number	Road reserve of the R27 Regional Road
	SG Code	R27 Regional Road
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:	Agriculture	
	In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.	
Is a change of land-use or a consent use application required?		<input type="checkbox"/> YES <input type="checkbox"/> NO

1) GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1 (Preferred):

Flat	1:50 — 1:20 Average	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 Average	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 Average	1:20 — 1:15	1:15 — 1:10	1:10 — 1:7,5	1:7,5 — 1:5	Steeper than 1:5
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2) LOCATION IN LANDSCAPE

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

2.1 Ridgeline		2.4 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	✓	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 A1		Alternative A2		Alternative A3		Alternative A4	
Shallow water table (less than 1.5m deep)	YES	NO	YES	NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO	YES	NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO	YES	NO	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO	YES	NO	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO	YES	NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO	YES	NO	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO	YES	NO	YES	NO	YES	NO
An area sensitive to erosion	YES	NO	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 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 GeoScience 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	Natural veld with scattered aliens	Natural veld with a heavy alien infestation	Veld dominated by alien species	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

Please see Appendix B for Site Photographs and further descriptions of site vegetation.

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.

N/A

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 describe the relevant watercourse.

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 a description of how this influences the application or may be impacted upon by the application:

Natural area	Dam or reservoir	Pole 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	Museum
Power station	Major road (4 lanes or more) ^N	Historical building
Office/consulting room	Airport	Protected Area
Military or police base/station/compound	Harbour	Cemetery
Spoil heap or slimes dam ^A	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (indigenous vegetation)–

If any of the boxes marked with an "N" are ticked, how this impact will / 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)	YES	NO
A core area of a protected area?	YES	NO
A buffer area of a protected area?	YES	NO
The planned expansion area of an existing protected area?	YES	NO
Existing offset area associated with a previous Environmental Authorisation?	YES	NO
A buffer area of the SKA?	YES	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:	YES	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:

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

The administrative area of the Hantam Local Municipality is approximately 36 218km² and the population of the area is approximately 21 083 people, with a great majority of the people being categorised as Coloured and those who are categorised as White, Black and Asian are small minorities. The population density is highest in the lower-income areas where public services are lacking and the quality of the urban environment is in dire need of improvement.

The residents of formal housing settlements in the area tend to enjoy higher levels of municipal services such as piped water, flush system toilets and refuse collection.

The residential areas were racially segregated prior to 1994 and segregation is still evident. However, the segregation of nowadays is more a reflection of socio-economic class and less a reflection of race.

Education levels are generally low, with only a small percentage of people having completed high school studies. However, the number of people that have never attended school has been decreasing over the years.

The main economic activity in the administrative area of the Hantam Local Municipality is Agriculture, followed by Community, social and personal services, Finance, Real estate and Business services, Transport, storage and communication.

The level of development in the sparsely populated area is low, despite being well located regarding rail and road corridors. Calvinia is the main agricultural service centre in the municipal area and as the railway line therefrom was the main means of transporting agricultural goods in the area. The decline in usage and eventual disuse of the railway line has contributed to the low levels of economic activity.

b) Socio-economic value of the activity

What is the expected annual turnover to be generated by or as a result of the project?	R1.4496 billion
New skilled employment opportunities created in the <u>construction</u> phase of the project	200
New skilled employment opportunities created in the <u>operational</u> phase of the project	100
New unskilled employment opportunities created in the <u>construction</u> phase of the project	1400
New unskilled employment opportunities created in the <u>operational</u> phase of the project	900
What is the expected value of the employment opportunities during the operational and construction phase?	262 080 000 per year

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)	The road reserve of the R27 Regional Road passes through salt pans and other watercourses as well as through the riparian area of the Sak River and through expansion area of a protected area.

- b) Indicate and describe the habitat condition on site (will be described once assessments have been received)

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into the condition, e.g. poor land management practices, presence of quarries, grazing, harvesting regimes etc).
Natural		
Near Natural (includes areas with low to moderate levels of alien invasive plants)	85%	The vegetation on the proposed site is in a relatively good condition.
Degraded (includes areas heavily invaded by alien plants)		
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)	Critical	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
	Endangered							
	Vulnerable							
	Least Threatened	YES	NO	UNSURE	YES	NO	YES	NO

d) Please describe 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
 The vegetation on the proposed site is divided into Bushmanland Basin Shrubland Vegetation and Bushmanland Vloere Vegetation. These vegetation types are categorised as Least Concern. Please refer to the Biodiversity Compliance Statement attached hereto as Appendix D1

Aquatic ecosystems
 The route of the proposed bulk water supply pipeline traverses some salt pans and other watercourses from time to time.

SECTION C: PUBLIC PARTICIPATION

1) ADVERTISEMENT AND NOTICES

Publication name	Noordwester/ Ouwernuus/
Date published	22 March 2024
Location of notices	
The Agri Mark Cooperative and local shops in the area	
Various places along the route of the proposed pipeline	
At the offices of the Hantam Local Municipality in Brandvlei and Calvinia	
Date placed: 22 March 2024	

Include proof of the placement of the relevant advertisements and notices (Refer to 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 No. R. 733.

PPP (Refer to Appendix E)

An advertisement was placed in a local newspaper, *i.e.*, Noordwester/ Ouwernuus/ which was published on 22 March 2024. Refer to Appendix E1.

- Adjacent landowners/ occupiers were notified via letter drops on 18 March 2024.
- An initial register of possible interested and affected parties was compiled (Refer to Appendix E)
- A site visit was conducted on 18 March 2024 to familiarise with the proposed site and nearby surrounding area and identify environmental sensitivities associated with the proposed site.
- A Comments and Responses Report (C&R Report) has been compiled to address comments received during the initial stage of public participation (Refer to Appendix E).
- Subsequent to the pre-application process, an application form was compiled and submitted to the competent authority and a Draft BAR has been made available to the competent authority and I&APs for a commenting period of 30 days.

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 733

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (Tel. number or e-mail address)

Include proof that the key stakeholder received written notification of the proposed activities (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 with the competent authority.

3) ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES (Please See Appendix E)

Summary of main issues raised by I&APs	Summary of response from EAP
None	N/A

4) COMMENTS AND RESPONSES REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the 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 BAR as Appendix E3.

Please refer to Appendix E3 for the comments and response report.

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
Please refer to Appendix E					

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.

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 before the commencement of the public participation process.

A list of registered I&APs must be included in Appendix E5.

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

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.

Please see Appendix F for Impact Assessment and Scoring Matrix.

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
Geographic and physical	Direct impacts:	Low negative	<ul style="list-style-type: none"> - Implement EMPr; - Minimise development footprint; - ECO monitoring; - Waste management.
	Indirect impacts:	Low negative	
	Cumulative impacts: <i>After mitigation</i>	Low negative	
Biological: (vegetation, protected species, CBAs,)	Direct impacts:	Low negative	<ul style="list-style-type: none"> • All construction must be done in accordance with an approved construction and operational phase Environmental Management Plan (EMP), which must be developed by a suitably experienced Environmental Assessment Practitioner. • A suitably qualified Environmental Control Officer must be appointed to monitor the construction phase in terms of the mitigation recommendations pertaining to specialist studies. • The pipeline route and disturbance footprint must stay within the road reserve (to control the construction footprint and minimise the impact on the adjacent natural vegetation). • All larger indigenous trees should be protected wherever possible. • A Northern Cape Nature Conservation Act permit must be obtained for the impacts on the protected species. • All alien invasive species within the road reserve must be removed responsibly.
	Indirect impacts:	Low negative	
	Cumulative impacts: <i>After mitigation</i>	Low negative	

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
			<ul style="list-style-type: none"> • Care must be taken with the eradication method to ensure that the removal does not impact or lead to additional impacts (e.g., spreading of the AIP due to incorrect eradication methods); • Care must be taken to dispose of alien plant material responsibly. • Indiscriminate clearing of any area outside of these footprints may not be allowed. • An integrated waste management approach must be implemented during construction. • Construction related spoil, general- and hazardous waste must be disposed to approved waste disposal sites.
Birds and mammals	Direct impacts:	Low negative	<ul style="list-style-type: none"> • An experienced, independent Environmental Control Officer (ECO) must be appointed to oversee the construction activities and compliance with the EMP. • The natural vegetation and habitat associated with features such as rocky outcrops, drainage lines, and pans must be avoided as far as possible. • Rocky outcrops, drainage lines, and the natural vegetation in the surrounding areas must be designated no-go areas for construction camps and crews. Construction camps must be placed within the footprint or within disturbed areas that are already modified as far as possible. • During construction, no wild animal may under any circumstance be handled, removed, or be interfered with by construction workers. No wild animal may under any circumstance be hunted, snared, captured, injured, or killed by construction workers. This includes animals perceived to be vermin. • Alien plant eradication and control must be undertaken throughout the construction phase and the operational phase.
	Indirect impacts: After mitigation		
	Cumulative impacts: After mitigation		
Sewage Management	Direct impacts:	Low negative	A portable toilet must be provided for every 15 construction workers during the construction

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
	<i>Indirect impacts: After mitigation</i>	Low negative	phase and the sewage collected and disposed of at a licensed wastewater treatment works at least twice a week.
	<i>Cumulative impacts: After mitigation</i>	Low negative	
Watercourse	<i>Direct impacts:</i>	Medium to low negative	<ul style="list-style-type: none"> The underground pipeline should be constructed and completed during the dry season when the risk of flash floods is lower. The pipeline must be laid at least 700mm deep for most of the approximately 72km pipeline route. Where the pipeline crosses a river or other relatively prominent watercourse, the pipeline depth must be increased to between 900mm and 1200mm and the pipeline must be protected with gabions, reno mattresses or concrete structures to prevent the backfill material from washing away and exposing the pipeline. The underground pipeline must be backfilled with 1m to 1.5m of material. The beds of sandy drainage lines should be levelled and landscaped in order to help minimise post-construction deposition and erosion thereon The pipeline trench must be backfilled with the same kind of material that was excavated so that on-site drainage characteristics after construction remain similar to before construction took place. The existing gabions, reno mattresses, rock-and-cement paving and other structures that must be broken down in the watercourses along the pipeline route when excavating the trench, should be repaired after backfilling the trench. <p>The water allowed to enter pans must strictly be limited to natural run-off</p> <ul style="list-style-type: none"> The material used for backfilling should be compacted and stormwater must be kept from ponding or forming canals thereon. The disturbance caused by construction activities must be limited as much as possible to the pipeline trench
	<i>Indirect impacts:</i>	Medium to low negative	
	<i>Cumulative impacts:</i>	Low	
Socio-economic	<i>Direct impacts:</i>	Medium positive	<ul style="list-style-type: none"> Construction workers should strictly be sourced from the local area as much as is practicable.
	<i>Indirect impacts:</i>	Medium positive	

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
	Cumulative impacts: <i>After mitigation</i>	Medium positive	<ul style="list-style-type: none"> Local businesses should be given first preference in the procurement process for service providers and suppliers of construction materials. The Applicant should work through a community liaison officer to ensure that the local community is kept informed on the project and is provided with a channel for addressing any concerns or grievances that may arise.
Cultural-Heritage-Paleontological	Direct impacts:	Medium	<ul style="list-style-type: none"> Should any palaeontological, cultural heritage or archaeological material be encountered during construction work, the ECO/site manager must report this to the South African Heritage Resources Agency ("SAHRA") and the encountered material must not be disturbed further without written approval from SAHRA
	Indirect impacts:	Low	
	Cumulative impacts: <i>After mitigation</i>	Low	
Noise impact	Direct impacts:	Low	<ul style="list-style-type: none"> A complaints register must be maintained on-site. Any complaints received must be responded to and rectified accordingly. The ECO must be notified of any complaints. Working hours must be strictly limited to regular daytime working hours (08h00-17h00) when construction work on the pipeline is within 650m of the town of Brandvlei
	Indirect impacts:	Low	
	Cumulative impacts:	N/A	
Visual impact	Direct impacts:	Low	<ul style="list-style-type: none"> Complete the construction phase as soon as possible Implement post-construction rehabilitation as per the recommendations contained in the terrestrial biodiversity specialist study report Make use of controlled lighting to limit light pollution
	Indirect impacts:	Low	
	Cumulative impacts: <i>After mitigation</i>	Low	
No-go option			
The "No-Go" option: Potential impact associated with the No-Go alternative.	Direct impacts:	High negative	<ul style="list-style-type: none"> The no-go alternative entails maintaining the <i>status quo</i>. This means that in spite of the low anticipated terrestrial ecological, freshwater ecological, heritage-related, visual impact and impact on birds and mammals that are likely from the proposed development and the significant social and economic impacts of establishing the proposed pipeline, the opportunity to establish the proposed within the road reserve of the R27 Regional Road would be forgone. The social and economic benefits that are expected to result from implementing the proposed development will also not materialise.
	Indirect impacts:	High negative	
	Cumulative impacts: <i>After mitigation</i>	High negative	

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
			In light of the above, adopting the 'no-go' alternative would be highly undesirable.

A complete impact assessment in terms of Regulation 19(3) of GN 733 must be included 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 occurring and the significance of impacts.

Please refer to Appendix F for the full Impact Assessment and proposed Mitigation Measures.

Proposed establishment of a bulk water supply pipeline within the road reserve of the R27 Regional Road from the Soafskolk turnoff to Brandvlei

The establishment of the proposed bulk water supply pipeline will provide employment opportunities during the construction phase, thereby helping to somewhat alleviate the unemployment situation in the area.

The augmented water supply as a result of establishing the proposed pipeline will make more water available for the Hantam Local Municipality to replace the undignified bucket-system toilets in the informal settlements of the area with water-system toilets. In addition, the higher availability of water in the municipal area as a result of the establishment of the proposed bulk water supply pipeline will make the town of Brandvlei less vulnerable to future droughts and this will make the town more appealing for economic investment and associated economic development.

In addition to the above, the potential negative terrestrial biodiversity impacts of the proposed development are low (Appendix D1, refers). The potential negative freshwater ecological impacts are Medium to low (Appendix D2, refers). The potential negative heritage-related impacts are low (Appendix D3, refers) The potential negative socio-economic impacts are low (Appendix D4, refers). The potential negative visual impact of the proposed development is low (Appendix D5, refers) and the potential negative impact on Animal Species, *i.e.*, birds and mammals is low (Appendix D6, refers).

In view of the above, the likely benefits of establishing the proposed bulk water supply pipeline far outweigh the potential negative impacts.

It is therefore suggested that the competent authority authorise the establishment of the proposed bulk water supply pipeline of approximately 72km within the road reserve of the R27 Regional Road.

SECTION E. RECOMMENDATION OF EAP

Is the information contained in this report and the documentation attached hereto sufficient to decide in respect of the activity applied for (in the view of the environmental assessment practitioner)?	YES	NO
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If “NO”, indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require a further assessment).

The Draft BAR was made available to Interested and Affected Parties for public participation as per the EIA Regulations of 2014 (as amended), before the BAR could be submitted to the competent authority for a decision on the application.

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.

<u>Recommended conditions</u>		
<ul style="list-style-type: none"> • All construction must take place in accordance with an approved construction and operational phase Environmental Management Programme (EMPr). • A suitably experienced ECO must be appointed to ensure compliance with the conditions of the Environmental Authorisation and the EMPr. • Construction work must be limited to between 08h00 and 17h00 when construction work and post-construction rehabilitation take place within 650m of the town of Brandvlei. • All waste material on site must be removed and disposed of at a licensed municipal waste disposal facility. • The recommendations contained in the Biodiversity Compliance Statement attached hereto as Appendix D1 must be implemented • The recommendations contained in the freshwater specialist report appended hereto as Appendix D2 must be implemented • The recommendations contained in the Heritage Impact Report attached hereto as Appendix D3 must be implemented • The recommendations contained in the socio-economic impact assessment report appended hereto as Appendix D4 must be implemented • The recommendations contained in the Visual Impact Assessment Report appended hereto as Appendix D5 must be implemented • The recommendations contained in the Animal Species Theme Compliance statement (Appendix D6, refers) must be implemented. 		
Is an EMPr attached?	YES	NO

The EMPr must be attached 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 in 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.

Bernard de Witt_
NAME OF EAP

SIGNATURE OF EAP

07 February 2025_
DATE

SECTION F: APPENDICES

The following appendices are attached:

APPENDIX A: MAPS

APPENDIX B: SITE PHOTOGRAPHS

APPENDIX C: FACILITY ILLUSTRATION

APPENDIX D: SPECIALIST REPORTS

APPENDIX E: PUBLIC PARTICIPATION

APPENDIX E1:PROOF OF ADVERTISEMENT AND NOTICES

APPENDIX E2:COMMENTS AND RESPONSES

APPENDIX E3:I&AP REGISTER

APPENDIX F: IMPACT ASSESSMENT AND SCORING MATRIX

APPENDIX G: ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

APPENDIX H: DETAILS OF EAP AND EXPERTISE