



Gauteng Department of Agriculture and Rural Development (GDARD)

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2010 (Version 1)

List of all organs of state and State Departments where the final report has been submitted, their full contact details and contact person

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2010.
 2. This application form is current as of 2 August 2010. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
 3. **A draft Basic Assessment Report must be submitted to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken. The draft reports must be submitted to the relevant State Departments and on the same day, two CD's of draft reports must also be submitted to the Competent Authority (GDARD) with a signed proof of such submission of draft report to the relevant State Departments.**
 4. 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.
 5. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
 6. An incomplete report shall be rejected.
 7. 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.
 8. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
 9. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
 10. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
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DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
18th floor Glen Cairn Building
73 Market Street, Johannesburg

Admin Unit telephone number: (011) 355 1345
Department central telephone number: (011) 355 1900

(For official use only)

File Reference Number:						
Application Number:						
Date Received:						

* Submission to State Departments (Number 3 above)

Has a final report for this application been submitted to all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

Yes

Is a list of State Departments referred to above been attached to this report? **Yes, the report was submitted to the following Departments:**

- **Gauteng Department of Agriculture and Rural Development (GDARD);**
- **Department of Water and Sanitation (DWS);**
- **Johannesburg Metropolitan Municipality; and**
- **South African Heritage Resource Agency (SAHRA).**

~~if no, state reasons for not attaching the list.~~

SECTION A: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

Project title (must be the same name as per application form):

Project Title

Proposed construction of a Treated Water Pipeline from the Goudkoppies Waste Water Treatment Works to the Crown Complex near Diepkloof, Soweto. (GDARD Ref No. 002/14-15/0190)

Project Description

Ergo Mining (Pty) Ltd (Ergo) reclaims historic gold Tailings Storage Facilities throughout the Witwatersrand Mining area. One such facility undergoing rehabilitation is their Crown Tailings complex situated near Diepkloof, Soweto. This facility is irrigated on a daily basis to promote and sustain vegetation growth on the slopes of the facility to reduce erosion potential, dust generation and maintain slope stability. Currently, potable water from Rand Water is utilised for irrigation and Ergo envisages to instead utilise treated effluent from the Goudkoppies Waste Water Treatment Works (WWTW) for the irrigation of the Crown Tailings complex.

The treated water from the Goudkoppies WWTW will pass through an additional filtration process to ensure further removal of suspended solids. This water will then be pumped to the Crown tailings complex, from where it will be utilised for irrigation. The details of the proposed pipeline include:

- **Approximately 6 km in length and welded with a High Density Polyethylene (HDPE) liner (lack of flanges and couplings will ensure limited areas of leakage);**
- **The volume of treated water to be pumped will total 231 litres per second (20 mega litres a day); and**
- **The internal diameter of the pipeline will be 500 mm (0.5 m).**

Approval has been granted by the Department of Water and Sanitation (DWS) for the proposed use of treated water for mining related water requirements. The Gauteng Department of Agriculture and Rural Development (GDARD) recently approved the Rondebult pipeline from Elsburg Tailings Complex to Rondebult Waste Water Treatment Works for this same requirement.

The pipeline will extend from the Goudkoppies WWTW north-eastwards up until the Crown Tailings complex. The pipeline will be buried predominantly within an existing Eskom servitude. Ergo is in the process of having a wayleave agreement drafted so as to utilise their servitude, however Eskom has agreed in principal.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Select the appropriate box

The application is for an upgrade of an existing development

The application is for a new development

Other, specify

Does the activity also require any authorisation other than NEMA EIA authorisation?

Yes

If yes, describe the legislation and the Competent Authority administering such legislation

**A Water Use Licence Application (WULA) will be submitted in terms of the National Water Act, 1998 (Act No. 36 of 1998) (NWA).
A Notice of Intent to Develop (NID) will also be submitted to the South African Heritage Resource Agency (SAHRA) in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA).**

If yes, have you applied for the authorisation(s)?

If yes, have you received approval(s)? (attach in appropriate appendix)

No

2. 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:

Title of legislation, policy or guideline:

Administering authority:

Promulgation
Date:

National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) as amended.	National & Provincial	November 1998
National Water Act, 1998 (Act No. 36 of 1998) (NWA).	National & Provincial	August 1998
National Heritage Resources Act, 1999 (Act No.25 of 1999) (NHRA).	National & Provincial	April 1999
Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) (OHSA).	National & Provincial	June 1993

3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the 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.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: 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.

Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other (provide details of "other")	Description
1	<u>Proposal: New Pipeline</u>	<p>Ergo Mining (Pty) Ltd (Ergo) reclaims historic gold Tailings Storage Facilities throughout the Witwatersrand Mining area. Once the reclamation process has concluded, Ergo, as part of their environmental policy, endeavours to rehabilitate the reclaimed facilities in line with best practice guidelines.</p> <p>One such facility undergoing rehabilitation is their Crown Tailings complex situated near Diepkloof, Soweto. This facility is irrigated on a daily basis to promote and sustain vegetation growth on the slopes of the facility to reduce erosion potential, dust generation and maintain slope stability. Currently, potable water from Rand Water is utilised for irrigation and Ergo envisages to instead utilise treated effluent from the Goudkoppies Waste Water Treatment Works (WWTW) for the irrigation of the Crown Tailings complex.</p> <p>The treated water from the Goudkoppies WWTW will pass through an additional filtration process to ensure further removal of suspended solids. This water will then be pumped to the Crown tailings complex, from where it will be utilised for irrigation. The details of the proposed pipeline include:</p> <ul style="list-style-type: none"> ■ Approximately 6 km in length and welded with a High Density Polyethylene (HDPE) liner (lack of flanges and couplings will ensure limited areas of leakage); ■ The volume of treated water to be pumped will total 231 litres per second (20 mega litres a day); and ■ The internal diameter of the pipeline will be 500 mm (0.5 m). <p>Approval has been granted by the Department of Water and Sanitation (DWS) for the proposed use of treated water for mining related water requirements. The Gauteng Department of Agriculture and Rural Development (GDARD) recently approved the Rondebult pipeline from Elsburg Tailings Complex to Rondebult Waste Water Treatment Works for this same requirement.</p> <p>The pipeline will extend from the Goudkoppies WWTW north-eastwards up until the Crown Tailings complex. The pipeline will be buried predominantly within an existing Eskom servitude. Ergo is in the process of having a wayleave agreement drafted so as to utilise their servitude, however Eskom has agreed in principal.</p>

2	Alternative Routes and Materials	<p>Alternatives pipeline routes were considered but proved to be too expensive and would have impacted both the public and the environment in terms of the need to excavate and replace pavements, crossing roads and crossing wetlands.</p> <p>A steel pipe laid on the surface was also considered but was decided against as it would impact on persons having to cross the Eskom servitude and the pipeline as such and would also prove to be a challenge in terms of regular maintenance, as well as impact on the access to areas etc. Therefore the best option was a buried HDPE pipeline as it would not impact upon the public or Eskom once it has been installed.</p>
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In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

Although other routes have been considered during the conception phase, the route within the Eskom servitude using a HDPE pipeline had been considered as the most viable option both from an environmental and financial perspective. This option will minimize the impact on surrounding land users. Furthermore, specialist studies had not indicated any environmental sensitivities that may prove to be a fatal flaw in terms of the planned route. Based on the latter, the potential impacts of the other routes have not been assessed.

NOTE: The numbering in the above table must be consistently applied throughout the application report and process.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

	Size of the activity:
Proposed activity	
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	
	<small>Ha/ m²</small>

or, for linear activities:

	Length of the activity:
Proposed activity	6 km
Alternatives:	
Alternative 1 (if any)	N/A
Alternative 2 (if any)	N/A

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

	Size of the site/servitude:
Proposed activity	~20 Ha
Alternatives:	
Alternative 1 (if any)	N/A
Alternative 2 (if any)	N/A

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road?

Yes	No
m	

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

Describe the type of access road planned:

No permanent access road planned. Site access will be temporary during construction period from existing road infrastructure. The existing servitude has existing access points, currently used by Eskom for maintenance and servicing requirements.

Include the position of the access road on the site plan. **N/A**

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?

Yes	No
m	

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

Describe the type of access road planned:

N/A

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?

Yes	No
m	

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

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan.

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated **Once (Proposed activity).**

6. SITE OR ROUTE PLAN (Attached as Appendix A)

A detailed site or route (for linear activities) 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 scale of the plan, which must be at least a scale of 1:2000 (scale can not be larger than 1:2000 i.e. scale can not be 1:2500 but could where applicable be 1:1500);
- the property boundaries and numbers of all the properties within 50m of the site;
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- the exact position of each element of the application as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, septic tanks, storm water infrastructure and telecommunication infrastructure;
- walls and fencing including details of the height and construction material;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100 m of the site or sites including (but not limited thereto):
 - Rivers and wetlands;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- for gentle slopes the 1m contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- the positions from where photographs of the site were taken.
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the 32m position from the bank to be clearly indicated).

7. SITE PHOTOGRAPHS

Colour photographs from the center 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 the appropriate Appendix B. It should be supplemented with additional photographs of relevant features on the site, where applicable.

The pipeline is a linear route and as such, photos at points along the route have been included in Appendix B. These photos focused on the 4 locations where the proposed pipeline will cross a water course.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 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. To be attached in the appropriate Appendix C.

N/A for underground pipeline – The route plan is detailed in Appendix A.

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)

Instructions for completion of Section B for linear activities

- 1) For linear activities (pipelines etc.) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
- 2) Indicate on a plan(s) the different environments identified.
- 3) Complete Section B for each of the above areas identified.
- 4) Attach to this form in a chronological order.
- 5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route times

Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed.
- 2) Each alternative location/route needs to be clearly indicated at the top of the next page.
- 3) Attach the above documents in a chronological order.

Section B has been duplicated for location/route alternatives times
(complete only when appropriate).

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application **N/A**

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Section B - Section of Route

Full route.

(complete only when appropriate for above)

Section B – Location/route Alternative No.

1

(complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description:
(Farm name, portion etc.)

The pipeline will extend from the Goudkoppies WWTW (Goudkoppie 317 IQ) north-eastwards up until the Crown Tailings complex (Diepkloof 319 IQ, Mooifontein 225 IQ).

2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Alternative:

Latitude (S):

Longitude (E):

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In the case of linear activities:

Alternative:

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

Latitude (S):

Longitude (E):

-26.2697	27.9241
-26.2418	27.9369
-26.2317	27.9519

For route alternatives that are longer than 500 m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix D. **Coordinates of every turning point (approximately every 110 m) of the pipeline have been given in Appendix D.**

Addendum of route alternatives attached

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

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

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	Undulating plain/low-hills	River front
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5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

a) Is the site located on any of the following?

Shallow water table (less than 1.5m deep)
Dolomite, sinkhole or doline areas.

Seasonally wet soils (often close to water bodies).
Unstable rocky slopes or steep slopes with loose soil.

Dispersive soils (soils that dissolve in water).
Soils with high clay content (clay fraction more than 40%).

Yes	
	No
Yes	
	No
	No
	No

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Any other unstable soil or geological feature.
An area sensitive to erosion.

	No
	No

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s)

	No
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If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):
°	°

c) are any caves located within a 300m radius of the site(s)

	No
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If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):
°	°

d) are any sinkholes located within a 300m radius of the site(s)

	No
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If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):
°	°

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department.

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)?

	No
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Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

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

Indicate the types of groundcover present on the site and include the estimated percentage found on site.

Natural veld - good condition % =	Natural veld with scattered aliens % =	Natural veld with heavy alien infestation % =	Veld dominated by alien species % = 65	Landsaped (vegetation) % =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % = 15	Building or other structure % =	Bare soil % = 20

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site.

	No
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Specialist studies have not confirmed any rare or endangered species on-site.

If YES, specify and explain:

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Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.

	No
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If YES, specify and explain:

None were identified, however, field investigations for this study were focused on wetlands and were restricted to one day on site.

Are there any special or sensitive habitats or other natural features present on the site?

Yes

If YES, specify and explain:

The pipeline traverses already severely impacted wetland areas and water courses.

Was a specialist consulted to assist with completing this section

Yes

If yes complete specialist details

Name of the specialist:

Ms Crystal Rowe

Qualification(s) of the specialist:

Flora and Wetland Specialist

Postal address:

Fern Isle, Section 5, 359 Pretoria Ave, Private Bag X10046, Randburg.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Postal code:	2125		
Telephone: E-mail:	011 789 9495	Cell	NA
	crystal.rowe@digbywells.com	:	011 789 9498
Are any further specialist studies recommended by the specialist? If YES, specify:	No Specialist reports for fauna & flora and wetlands have been compiled regardless. Please refer to Appendix G.		

Signature of specialist

Date: 2014-11-28



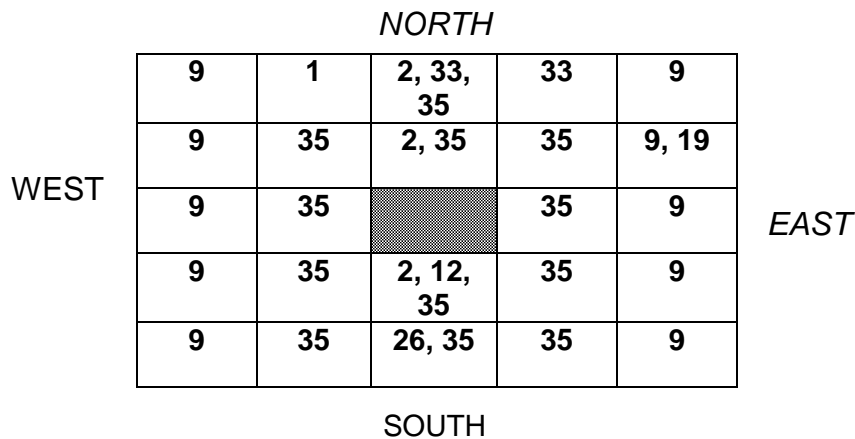
Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated.

8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):	Eskom servitude (35).			

NOTE: Each block represents an area of 250m X250m



Note: More than one (1) Land-use may be indicated in a block.

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "A" and with an "N" respectively.

Have specialist reports been attached
If yes indicate the type of reports below

Yes

Fauna and flora report;
Wetlands report;
Aquatics report; and
Notice of Intent to Develop (NID).

9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

The Project is situated in the City of Johannesburg Metropolitan Municipality (CoJM), Gauteng Province. The CoJM is divided into 7 regions; the project area falls within Region D.

Gaining an understanding of the pre-existing social environment is required in order to anticipate and understand the potential social impacts that may result from the proposed project. A number of developmental indicators have shown that although the CoJM is more developed than the nation as a whole, there is a significant proportion of people living in poverty. The measure of inequality (Gini Coefficient) suggests that the CoJM still experiences large wealth disparities and this has resulted in a mixed quality of living in the CoJM. As a result, poverty and underdevelopment are geographically concentrated and dispersed and this is reflected in the pattern of residential segregation.

In 2011, Johannesburg was home to more than 4.4 million people, Region D had a population of approximately 1.35 million. The urban nature of this project means that socio-economic circumstances within the project area can differ to varying degrees.

The most common languages spoken in the local study area are isiZulu and Setswana.

The most prominent ethnicity in the local study area is Black African.

Very few people in the area go on to achieve education beyond secondary school. This affects the quality of available skills in the labour force and also has an effect on income earning ability of the area. There is a large amount of people who do not receive an income at all. This is detrimental to local economic development and creates high levels of unemployment (40%) which is significantly higher than other regions of the CoJM.

Steep population growth in the area is making it difficult to provide formal services to the entire population. Housing remains a challenge in the area and as much as 42% of the population in Region D makes use of informal housing. Almost 100% of households in the local study area have access to municipal water supplies, very few people use ground or surface water. The provision of piped water is very good in the local study area with as much as 91% of the population having access to a tap that is at least inside the yard. Sanitation provision was also very good in the local study area with as much as 93% having access to formal sanitation facilities, however, the reliability and maintenance of these services poses a challenge. In terms of electricity provision, the majority of people have access to electricity. The majority of residents in the area also enjoy refuse removal.

In terms of educational facilities, there are a number of primary and secondary schools available, however, there is a need for improved access to tertiary education facilities, as well as study centres for those in secondary school. In terms of health facilities it is important to note that the Chris Hani Baragwaneth Hospital provides service to people throughout the province, therefore although it is a large facility, there is a challenge to providing services to an increasing number of patient.

Transport remains a challenge for residents of Region D. Commuter inconvenience was stated as an economic deterrent in the area. One of the greatest challenges facing the Metro is the location of housing developments at the periphery of the City, far from employment opportunities and commercial and social facilities, with access to these services being costly.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure. **Please refer to NID attached to Appendix G.**

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-
- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
 - (b) the construction of a bridge or similar structure exceeding 50 m in length;
 - (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m² in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
 - (d) the re-zoning of a site exceeding 10 000 m² in extent; or
 - (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?

	No
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If YES, explain:

~~If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.~~

~~Briefly explain the findings of the specialist if one was already appointed:~~

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

	No
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Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

	No
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If yes, please attached the comments from SAHRA in the appropriate Appendix-

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The Environmental Assessment Practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

- 1(a) Fix a site notice at a conspicuous place, on the boundary of a property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made;
- 1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority;
- 1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;
- 1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;
- 1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and
- 1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and
- 1(g) place an advertisement in one local newspaper and any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

Objectives of the Public Participation Process (PPP)

The PPP has been designed to achieve the following objectives:

- **To ensure that stakeholders are well informed about the proposed project;**

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

- To provide stakeholders sufficient opportunity to engage and provide input and suggestions on the proposed project;
- To verify that stakeholder comments have been accurately recorded; and
- To draw on local knowledge in the process of identifying environmental and social issues associated with the proposed project, and to involve stakeholders in identifying ways in which these can be addressed.

Basic Assessment (BA) Application and Notification to Landowners

The application form for a BA for the proposed project was submitted to GDARD on 12 November 2014. The application form was acknowledged by GDARD on 28 November 2014. Prior to the submission of the application form, a Landowner Notification letter was sent to directly affected landowners by means of registered mail, informing these landowners about the proposed project. Proof of the landowner notification letters sent via registered mail were attached to the application form which was submitted to the GDARD. A copy of the letter is attached as Appendix E-1.

Announcement of the Project

The following methods were used to inform stakeholders about the proposed project:

- Site notices were developed (refer to Appendix E-2) and placed on 14 January 2015 at the various locations visible and accessible to the public to inform them of the proposed project. Site notices were placed in close proximity to the proposed pipeline route and within adjacent residential areas. Site notices were also placed at the Diepkloof Zone 1, Zone 5 and Jabavu Public Libraries. Proof of these placements will be included as part of the Final BAR which will constitute a site notice report and map indicating the various placement points. The site notices provided information about the following:
 - Brief project description and location of the proposed project;
 - Legal process to be followed;
 - Competent authorities for the proposed project;
 - Independent Environmental Assessment Practitioner responsible for the BA process;
 - Availability of the Draft BA Report for public comment; and
 - Proposed dates for input into the process and to provide stakeholders with the opportunity to register as Interested and Affected Parties (I&APs).
- A Background Information Letter (BIL) was distributed to stakeholders by means of email and post on 14 January 2015 and also placed at the Diepkloof Zone 1, Zone 5 and Jabavu Public Libraries Public Library. In order to ensure that information provided to stakeholders about the proposed project is consistent, the BIL contained the same information as provided in the site notice and newspaper advertisement. The BIL does however contain more detailed information about the proposed project, more specific timelines and a locality map and was accompanied by a Registration and Comment Sheet for stakeholders to formally register as I&APs (refer to Appendix E-3); and
- A newspaper advertisement was placed in the Star Newspaper on 14 January 2015. The information contained in the site notice has been replicated in the newspaper advertisement to ensure that a constant message is conveyed to stakeholders (refer to Appendix E-4). Proof of the newspaper placement will be included as part of the Final BAR.

Availability of Draft BAR

The Draft BAR is available for public comment from Thursday, 15 January to Monday, 23 February 2015 at the Diepkloof Zone 1, Zone 5 and Jabavu Public Libraries and also on the Digby Wells website (www.digbywells.com), under Public Documents. Stakeholders were informed about availability of the report by means of the site notices, newspaper advertisement and BIL which was distributed via email and post. These communication media contained the needed information to enable stakeholders to register formally as I&APs and to provide comments through the appropriate channels. Refer to Appendix E for a copy of the BIL and Registration and Comment Sheet. Telephonic consultation will also take place with directly affected landowners.

Availability of Final BAR

The Final BAR will be submitted to the GDARD and will also be available for public comment for 21 days towards the end of February 2015 on the Digby Wells website

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

(www.digbywells.com), under Public Documents. Announcement of availability of the Final BAR will be done by means of email and post to registered I&APs.

2. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority (GDARD).

Has any comment been received from the local authority?

No

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

If "NO" briefly explain why no comments have been received

Efforts to obtain comments from local authorities will be implemented during the public comment period (Thursday, 15 January to Monday, 23 February 2015).

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least thirty (30) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

No

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

Comments obtained from stakeholders during the public comment period will be included into a Comment and Response Report (CRR) and appended to the Final BAR.

If "NO" briefly explain why no comments have been received

Stakeholder comments will only be obtained with availability of the Draft BAR, which will be done as part of the public comment period (Thursday, 15 January to Monday, 23 February 2015). These stakeholder comments will be included into the CRR and appended to the Final BAR.

To ensure a proper representation of all stakeholders, the following identification methods were used to develop a stakeholder database:

- Conducting Windeed searches in and around the project area to verify landownership and obtain contact details;
- Responses to be received from the publication of newspaper advertisements and site notices;
- Responses on the distribution of the BIL; and
- Telephonic discussions with stakeholders.

Stakeholders are grouped into the following categories:

- Government: National, Provincial, District and Local authorities;
- Landowners: Directly affected and surrounding landowners;
- Non-Governmental Organisations (NGOs);
- Environmental organisations;
- Community-based Organisations (CBOs); and
- Small medium enterprises and formal business organisations.

A categorised full stakeholder database is included as Appendix E-5 and provides the needed details of stakeholders informed about the project.

Stakeholder Comments

Stakeholder comments which will be received as part of the public comment period will be included in the CRR, which will be updated throughout the BA process. The CRR will be used by the project team and specialists to inform better decision making associated with the proposed project and studies to be undertaken. Responses to the various stakeholder comments raised will also be provided by the project team. Key stakeholders will be consulted telephonically with availability of the Draft BAR.

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

The practitioner must record all comments and respond to each comment of the public / interested and affected party before the application is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

As stipulated above in sections 1, 2 and 3, the Public Participation methodology has been set out and discussed in detail.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below.

Appendix E-1: Application Notification Letter

Appendix E-2: Site Notice

Appendix E-3: Background Information Letter

Appendix E-4: Newspaper Advertisement

Appendix E-5: Stakeholder Database

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives times
(complete only when appropriate)

Section D Alternative No. (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

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

Yes No
Unknown m³

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

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

During construction phase, a limited volume of solid waste such as pipe off cuts, plastic waste and general rubbish will be generated. This solid waste will be collected in bins on site and transported by the contactors to the nearest municipal landfill site on a weekly basis.

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

The construction solid waste will be collected in skips and disposed of at the nearest municipal landfill site. A contractor will be appointed to truck the construction waste on a weekly basis.

Yes No
m³

Will the activity produce solid waste during its operational phase?

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

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

N/A

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

Yes No

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

The volume of waste generated during construction is expected to be minimal with no waste generated during operational phase.

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

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

Yes No

If yes, inform the competent authority and request a change to an application for scoping and EIA.

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

Yes No

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.

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

The construction contractor will be requested to use colour coded waste bins in order to separate different types of waste for recycling purposes. Alternatively waste produced during construction can be transported and sorted into different waste streams at a recycling deposit facility.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Liquid effluent (other than domestic sewage)

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

[Redacted] **No**

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

[Redacted] m³

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

[Redacted]

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

[Redacted] **No**

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

[Redacted] m³

If yes describe the nature of the effluent and how it will be disposed.

N/A

Note that if effluent is to be treated or disposed on site 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?

[Redacted] **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 waste water, if any:

By making use of treated waste water and transporting it to the Crown complex, Ergo will be reusing waste water instead of using potable water. The water used on site will also be re-captured and re-used as much as possible.

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

[Redacted] **No**

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

[Redacted] m³

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?

[Redacted]

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

[Redacted] **No**

If yes describe how it will be treated and disposed off.

N/A

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

[Redacted] **No**

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

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

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

N/A

2. WATER USE

Indicate the source(s) of water that will be used for the activity

Municipal	Directly from water board	Groundwater	River, stream, dam or lake	Other Water will be sourced from the Goudkoppies WWTW	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:

[Redacted] liters

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Yes [Redacted]

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

If yes, list the permits required

A Water Use Licence Application (WULA) for Section 21 (c) and (i) uses will be lodged with the Department of Water and Sanitation as part of Ergo's consolidated WULA to be submitted in 2015.

If yes, have you applied for the water use permit(s)? [See comment above.](#)

[Redacted] **No**

If yes, have you received approval(s)? (attached in appropriate appendix) [See above.](#)

[Redacted] **No**

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

The City of Johannesburg will provide power for the pump station and filtration machinery.

If power supply is not available, where will power be sourced from?

[Redacted]

4. ENERGY EFFICIENCY

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

None.

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

None.

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

To be confirmed after public review period.

Summary of response from the practitioner to the issues raised by the interested and affected parties
(A full response must be provided in the Comments and Response Report that must be attached to this report):

This will be included in the final Basic Assessment Report, attached as (Appendix E).

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

In order to assess impact for the proposed pipeline, several site visits were undertaken by various specialists and members of the public participation team. Following this, the area was researched and information collected from the client, governmental departments, reference books and internet sources.

The significance of an impact follows the established impact assessment process: Significance = Consequence x Probability

Where Consequence = Severity + Spatial Scale + Duration And
Probability = Likelihood of an impact occurring

Considering the above elements, each identified impact has been assessed qualitatively and categorised into either: low, medium or high significance. The rating is applied both prior to and after mitigation. Those impacts that are not reduced post mitigation will require particular attention to ensure they are adequately managed. Impacts that result in a positive outcome will be noted as such.

Significance	Severity		Spatial scale	Duration	Probability
	Environmental	Social, cultural and heritage			
High	Significant impact on highly valued species, habitat or ecosystem.	Irreparable damage to highly valued items of cultural significance or breakdown of social order.	Provincial Will / could have impacts that affect issues on a provincial level	Permanent Likely to be permanent however mitigation measures of natural process will reduce the impact.	Almost certain/Highly probable It is most likely that the impact will occur.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

<u>Medium</u>	Moderate, short-term effects but not affecting ecosystem function. Rehabilitation requires intervention and can be undertaken within a year	Ongoing social issues. Damage to items of cultural significance.	<u>Local - Municipal</u> Local impacts extending as far as the development site area but may spread locally into the municipal area	<u>Medium term</u> Impact may last beyond the construction phase	<u>Probable - Likely</u> Has occurred here or elsewhere and could therefore occur.
<u>Low</u>	Minor effects on biological or physical environment. Environmental damage can be rehabilitated internally with/ without help of external consultants.	Minor medium- term social impacts on local population. Mostly repairable. Cultural functions and processes not affected.	<u>Limited</u> Limited to the site and its immediate surroundings	<u>Short term</u> Duration of construction phase	<u>Unlikely</u> Has not happened yet but could happen once in the lifetime of the project, therefore there is a possibility that the impact will occur.

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal: Pipeline from Goudkoppies WWTW

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Construction Phase			
<u>Visual and Air Quality</u> Movement of machinery and equipment during the construction phase will increase the nuisance factor to residents in the area and result in the generation of dust which will be visible to local residents (Diepkloof and Orlando East) and nearby receptors over a period of 3 months.	Low	<ul style="list-style-type: none"> • Due to the nature of the area, there is natural screening available from the natural vegetation, undulating topography and buildings. • There will be minimal equipment and machinery used and workers will not be staying on site. • No open fires will be allowed on site. • Where dirt roads are used as access points, dust will be controlled by watering the roads and reducing the movement of trucks. Speed is to be limited to 40 km/hr. • During particularly windy and dry conditions, the general site should be watered to reduce dust levels. 	Low

		<ul style="list-style-type: none"> • Each section should be excavated, pipeline buried and site rehabilitated prior to moving onto the next section of pipeline. 	
<p><u>Noise</u></p> <p>The construction machinery, vehicles and work force will generate noise locally. The impact which the local receptors (residents of Diepkloof and Orlando East) will be exposed to will be short term due to the relatively quick timeframe in which the pipeline construction is proposed.</p>	Low	<ul style="list-style-type: none"> • Construction activities to only take place during daylight hours. • Construction related machinery and vehicles must be serviced regularly to reduce noise. • Equipment to be switched off when not in use. 	Low
<p><u>Fauna and Flora</u></p> <p>The use of vehicles and machinery on site to dig and bury the pipeline may result in oil and fuel spillages. This could in turn contaminate the surrounding soil, flora and wetlands. Although this impact is expected to be unlikely, the severity could require rehabilitation techniques.</p> <p>The clearing of vegetation, albeit in previously disturbed areas, could promote the generation of weeds and invader species.</p> <p>The majority of the area is following existing servitudes and disturbed areas, therefore impacts on fauna and flora are minimal, particularly when mitigation measures are applied.</p>	Low	<ul style="list-style-type: none"> • Construction activities and clearing of vegetation to be limited to within the servitude of the pipeline. • Contaminated soils from oil spillages and any other oil waste should be collected in a designated container and removed to the Holfontein waste disposal facility once construction is complete. • Rehabilitation of areas disturbed during construction should occur concurrently to pipeline construction activity. i.e once a section of pipe has been buried, it needs to be rehabilitated with vegetation similar to the surrounding vegetation. • Monitoring of sites post construction to be implemented to ensure rehabilitation is successful. • Alien invasive management plan will be prepared and implemented if required. 	Low
<p><u>Wetlands</u></p> <p>Although the channelled valley bottom wetlands on site are currently assigned relatively low Present Ecological Status (PES) value (as they are in an urban environment encompassed by housing developments and roads), further degradation of these systems should be avoided at all costs.</p>	Low	<ul style="list-style-type: none"> • Access of people and vehicles to the wetlands along the pipeline construction servitude be restricted as far as possible. • Steel sleeves should be fitted over the pipeline at the wetland crossing. • All construction personnel must be educated with regards to the sensitivity of the area through environmental awareness training, prior to construction. • When constructing the pipeline through the wetland, work must be continuous and completed without delay so that water is not allowed to pond. 	Low

<p><u>Soils and Erosion</u></p> <p>During construction soil compaction and erosion and contamination is possible. This may be as a result of the clearance of vegetation from site, excavation and stockpiling of topsoil, compaction caused by machinery onsite and increased movement along the pipeline route.</p>	<p align="center">Low</p>	<ul style="list-style-type: none"> • The area being cleared of vegetation for the construction activities must be limited to the servitude for the pipeline, and only to the length of area to be constructed the following week. • Construction activities should preferably take place during the dry months (May – September). • All surfaces that are susceptible to erosion shall be covered with a suitable vegetative cover as soon as construction is completed. Rehabilitation to be monitored post construction. • The refueling of vehicles must take place off site. • Vehicles not in use must remain off site. • Soils stripping should be done in two (2) steps to improve the natural rehabilitation chances. The topsoil (30 cm) must be stripped and stockpiled on one edge whilst the rest of the excavated soil is to be placed on the opposite edge of the trench. When the trenches are to be backfilled the subsoil is to be placed in first with the topsoil placed on top. 	<p align="center">Low</p>
<p><u>Waste and Sanitation</u></p> <p>There is the potential for pollution of the surrounding environment with regards to the incorrect disposal of waste and sanitation.</p>	<p align="center">Medium</p>	<ul style="list-style-type: none"> • Adequate forms of chemical sanitation must be provided and placed within 100 m of worker activity and serviced on a regular basis. • Sealable waste bins must be provided by the contractor and serviced regularly. • Waste to be segregated on site into appropriately labelled storage bins must be regularly removed from site. • General housekeeping will be enforced and monitored • Post construction of each pipeline section, the site will be inspected for litter and general waste, as well as success of rehabilitation. 	<p align="center">Low</p>

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

<p><u>Heritage</u></p> <p>As most pipelines are within existing servitudes or along farm boundary lines, construction of access roads will not be required. The excavation of the servitude for the pipeline may unearth artefacts or remains which are of importance.</p>	<p align="center">Low</p>	<ul style="list-style-type: none"> • Should graves, fossils or any archaeological artefacts be identified during construction, work on the area where the artefacts were found must cease immediately and it should immediately be reported to a heritage practitioner who will conduct a chance find procedure, such as one given in the Environmental Management Programme (EMP) (Appendix H). • A brief awareness programme will be discussed with local workforce to ensure they are aware of the probability and procedure in place should any artefacts be unearthed. 	<p align="center">Low</p>
		<ul style="list-style-type: none"> • Land owners, road and land 	

<p><u>Social and Community</u></p> <p>During certain sections of the pipeline, adjacent landowners, road and land users may be impacted during transportation of equipment, digging of trenches and laying down of the pipeline, however the construction phase is not expected to be long term and completion of the entire length is estimated at 1 month.</p>	<p align="center">Low</p>	<p>users to be timeously informed of any inconvenience brought about through the construction of the pipeline. Where required, notices to inform of any delays, road closures or construction activities are to be place at the site at least a week before construction to take place.</p> <ul style="list-style-type: none"> • If traffic is to be affected, construction is not to take place in peak hour traffic times and should only take place between 09:00am to 15:30pm in high density traffic areas. Municipal approvals must be obtained for such closures. 	<p align="center">Low</p>
<p><u>Aquatics</u></p> <p>The major concerns relating to potential impacts on aquatic ecology associated with the project would be the further degradation of water and habitat quality of the aquatic systems associated with the project area. Potential impacts that may result in further degradation includes soil compaction resulting in increased runoff and consequent habitat modification and potential spillages of hydrocarbons into the aquatic system.</p>	<p align="center">Low</p>	<ul style="list-style-type: none"> • Eroded sediments must be captured; this can be completed through the use of screening nets and paddocks in drainage channels where construction is occurring or along roadways. • The pipelines should be constructed over existing water crossings (where feasible). • The use of heavy machinery adjacent the water crossings must be avoided where possible. • The portion of the pipeline crossing the wetland areas must be a continuous length of pipeline, i.e. contain no flanges. • All hydrocarbons must be stored away from riparian systems, the changing of oil and lubricants as well as the filling of fuels should be completed at a designated workshop with adequate surface water collection facilities. • Building materials must be stored away from riparian/wetland areas so as to reduce potential runoff entering the aquatic systems. • On site hydrocarbon spill kits must be present on site should a spillage occur. 	<p align="center">Low</p>
<p>Operational Phase</p>			

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

<p><u>Water Use</u></p> <p>The construction of the pipeline will allow for the re-use of waste water as opposed to the use of good quality potable water for mining activities. This results in a positive impact in terms of constructive water use.</p> <p>No contamination of surface or groundwater is anticipated for the pipeline and should there be leaks, the water quality is of a standard which will not result in negative impacts to water resources or fauna and flora.</p>	<p>Positive Medium impact</p>	<p>Where waste water can be further re-used, these measures should be implemented on site.</p>	<p>Positive Medium impact</p>
<p><u>Soils and Erosion</u></p> <p>The Highveld can experience intense rainstorms whereby erosion and sedimentation can occur. Should rehabilitation of the buried pipeline not be sufficient, erosion and loss of soils and vegetation may take place. This will in turn expose the pipeline and open it up to damage.</p>	<p>Low</p>	<ul style="list-style-type: none"> • Monitoring of the entire pipeline route to take place post construction and routinely during operations to ensure the pipeline has been adequately rehabilitated. • Should the monitoring indicate potential problem areas, the relevant consultants will be brought in to remedy the impact. 	<p>Low</p>

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

- | |
|--|
| <ul style="list-style-type: none"> ▪ Aquatics Report (Appendix G) ▪ Wetland Report (Appendix G) ▪ Flora Report (Appendix G) ▪ Notification of Intent to Develop for SAHRA (Appendix F) |
|--|

3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal: Pipeline from Goudkoppies WWTW

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<p>The pipeline will be used until at least 2022, at which time it will be assessed for future use. Should decommissioning take place, the legislation applicable at that time should be complied with, and relevant environmental practices implemented. At a time that decommissioning is considered, a decision will need to be made on whether the infrastructure will be removed or left in situ. Should the pipeline be removed, the impacts associated with the construction phase discussed above are all applicable.</p>			

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

Due to the nature of the environment through which the pipeline is traversing, the cumulative impacts are limited. The area is already severely impacted with multiple land uses consisting of urban and peri-urban activities. The construction of a 0.5 m pipeline will be a short term activity, along existing servitudes in many places and with impacts that can be mitigated. During operational phase, the buried pipeline will have almost no further impact and thus cumulative impacts are negligible.

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal 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.

Proposal: New Pipeline

During construction, the workforce will travel to work daily and not stay on site. Machinery used will be minimal as the pipeline is to be buried at a depth of 0.5m. Each section of the pipeline will be completed before moving onto the next section.

The construction impacts, once mitigated, are of low significance as they will be localised, short term and restricted to the construction phase. The operational impacts will result in an environmental benefit due to fact that potable water will be available for other use and waste water will be re-used. The pipeline is low maintenance once operational and not expected to produce any significant impacts.

Following mitigation, residual impacts expected from the construction phase of the pipeline include the following:

- Visual impact to local land owners and users which will be due to dust and machinery. This impact will occur but for a limited time period and can be mitigated through the natural topography and dust suppression techniques. Residual impact is *Low*.
- Noise will increase around the site of construction for the period of

construction only and be limited to noise from cars and machinery and construction workers. Due to the receptors in the area and the nature of the area, the impact following mitigation is *Low*.

- Fauna, flora and wetlands are expected to be impacted particularly when the pipeline traverses through fields, wetlands and natural areas. Vegetation will be removed but then re-planted following completion of construction. Due to the majority of the area being disturbed and the degraded nature of the wetland, the impact following mitigation is considered *Low*.
- Waste generated during construction is expected to be minimal and consist of litter, pipe off cuts and some rubble and dirty rags etc. Implementing on site waste storage and regular removal of waste off site will ensure impacts to the local environment remain *Low*.
- When soils are disturbed it allows for erosion and contamination to take place. The pipeline will be completed in sections and monitoring will ensure potential erosion hot spots are identified and controlled. Following mitigation impacts on soil are considered *Low*.
- The heritage environment is easily identified above ground, however some items may be unearthed during construction. Employees will undertake awareness training to identify possible heritage items and should anything be unearthed, a chance find procedure will be implemented. This will reduce the impact on heritage resources to *Low*.
- The social environment consists of mixed land users, urban and per-urban areas as well as industrial areas thus the impact of a pipeline in such a previously disturbed area is minimal. Due to the short term nature of the construction phase, impacts on local receptors is expected to be short term and minimal thus post mitigation impacts are considered *Low*.
- Using treated wastewater instead of potable water for an industrial process is considered a *Medium* positive benefit as it frees up water to be available to other users

The operation phase impacts include potential for soil erosion and loss of vegetation, however with ongoing monitoring, as well as implementation of the EMP, this can be prevented or restored.

Overall there are no significant medium or high impacts from the construction and operation of the proposed pipeline.

No-go (compulsory)

Should the pipeline not be constructed, the water provision for the rehabilitation of the tailings facility at Crown will have to be sourced from alternative sources which are readily available such as Rand Water (which are of potable standards). This will result in higher costs to Ergo, which may not be economically viable. In addition the use of potable water for mining processes is not best practice, especially in a water scarce country. Should the Project not be approved, potable water will continue to be used for dust suppression and erosion protection measures.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The proposed pipeline as described for alternative 1 is the preferred alternative.

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

The pipeline will not result in any significant impacts to the local environment during the construction, operational and decommissioning phases.

The pipeline will result in the use of treated waste water for an industrial process instead of using potable water from Rand Water.

The pipeline will make use of existing servitudes as far as possible, and crossing through open fields or low density areas where impacts will be minimal to local residents and land users.

The construction of the pipeline is short term therefore the majority of the predicted impacts will be short term.

The operational phase of the Project will be low maintenance.

7. 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 [REDACTED]

If "NO", indicate the aspects that require further assessment 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:

The findings of this report must be accepted and approved by the Competent Authority.

Environmental monitoring must be conducted as specified in the EMPr.

The EMPr should be adhered to during construction and monitoring to be conducted throughout operations.

8. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

If the EAP answers yes to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached Yes

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed.

