NKT CONSULTING SERVICES (PTY) LTD
WATER & ENVIRONMENTAL SERVICES

BASIC ENVIRONMENTAL IMPACT ASSESSMENT FOR 118 DENNIS ROAD SEWER PIPE REPAIR & EROSION CONTROL IN ATHOL GARDENS, CITY OF JOHANNESBURG.

REF No. :

AUGUST 2021

Johannesburg Water

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This application form is current as of 8 December 2014. 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, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.**
4. **A draft Basic Assessment Report (1 hard copy and two CD's) must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application.**
5. 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.
6. 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.
7. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
8. An incomplete report may lead to an application for environmental authorisation being refused.
9. **Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities**

found on site may lead to an application for environmental authorisation being refused.

10. 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 application for environmental authorisation being refused.
11. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
12. 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.
13. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development

Attention: Administrative Unit of the of the Environmental Affairs Branch

P.O. Box 8769

Johannesburg

2000

Administrative Unit of the of the Environmental Affairs Branch

Ground floor Diamond Building

11 Diagonal Street, Johannesburg

Administrative Unit telephone number: (011) 240 3377

Department central telephone number: (011) 240 2500

(For official use only)

NEAS Reference Number:	
File Reference Number:	
Application Number:	
Date Received:	

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

[redacted]

Is a closure plan applicable for this application and has it been included in this report? [redacted]

if not, state reasons for not including the closure plan.

[redacted]

Has a draft report for this application been submitted to a competent authority and 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 the State Departments referred to above attached to this report including their full contact details and contact person? YES

If no, state reasons for not attaching the list.

[redacted]

Have State Departments including the competent authority commented? YES

If no, why?

Contents

1 SECTION A: ACTIVITY INFORMATION

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

Basic Environmental Impact Assessment For 118 Dennis Road Sewer Pipe Repair & Erosion Control in Atholl Gardens, City of Johannesburg.

1.1 Proposal or development description

The scope includes pipe repair of approximate 75m long pipe from manhole to manhole and installation of approximately 85m of erosion protection using combination gabions and rip rap by conventional open trench method for normal ground works and by open trench mainly. The scope of work will also incorporate at least the following activities:

Pipe repair

- Installation of a new 250mm uPVC sewer pipe approximately 75m long from manhole to manhole

Erosion protection of the following:

- Rip rap
- Gabion boxes
- Gabion reno mattresses
- Earthworks excavation and compaction

The existing clay sewer pipe has washed away by the river/ flooding due to riverbank being also scoured and the pipe is currently disconnected and discharging effluent to the river.

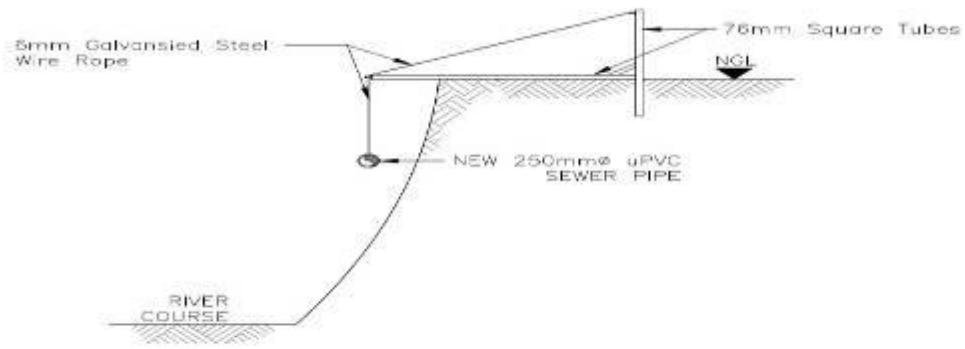
PRELIMINARY SCOPE OF WORK FOR CONSTRUCTION

The following will be the scope of works for the project:

1) Temporary Measures to Control Flow During Construction

The over pumping of sewage from manhole to the nearby existing sewer manhole would be done during the construction of concrete columns/piers. The temporary frame structure will be also constructed with a 6mm galvanised steel wire rope that will hang the new PVC pipe that will be

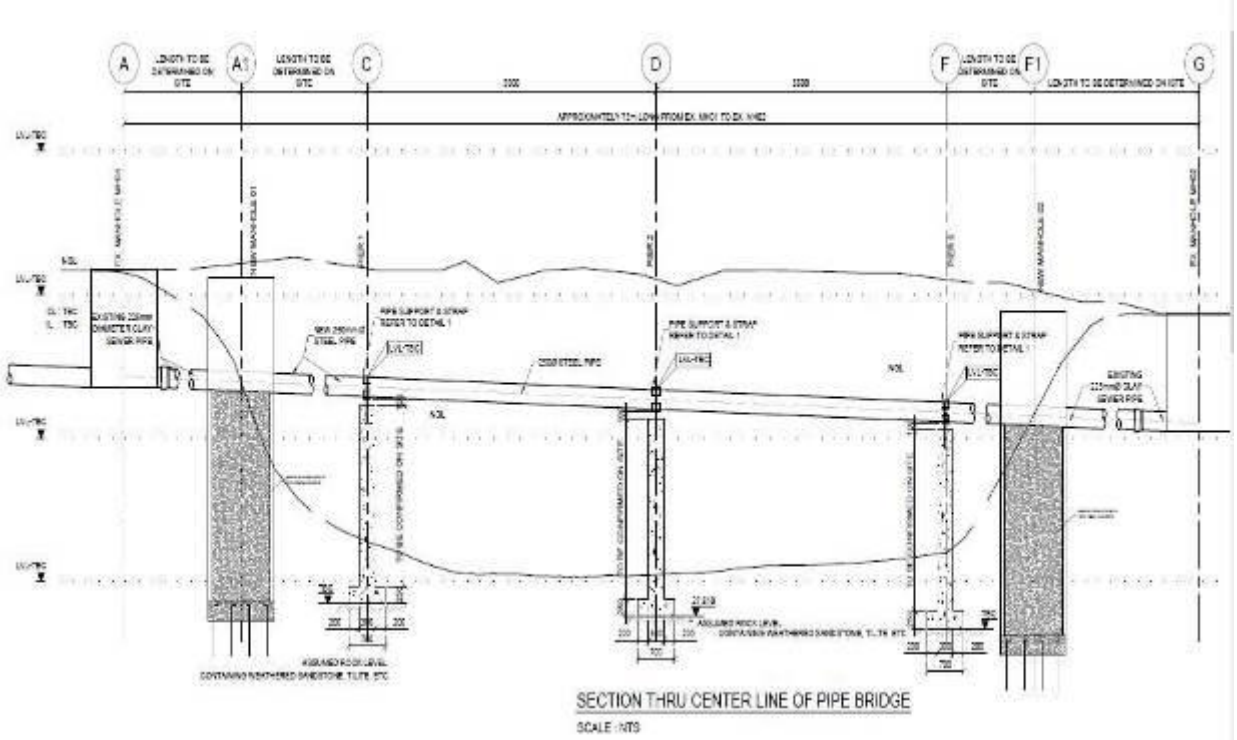
connecting to an existing sewer pipe. Refer to a typical cross section below.



TYPICAL DETAILS OF CABLE SUPPORTS
SCALE 1:100

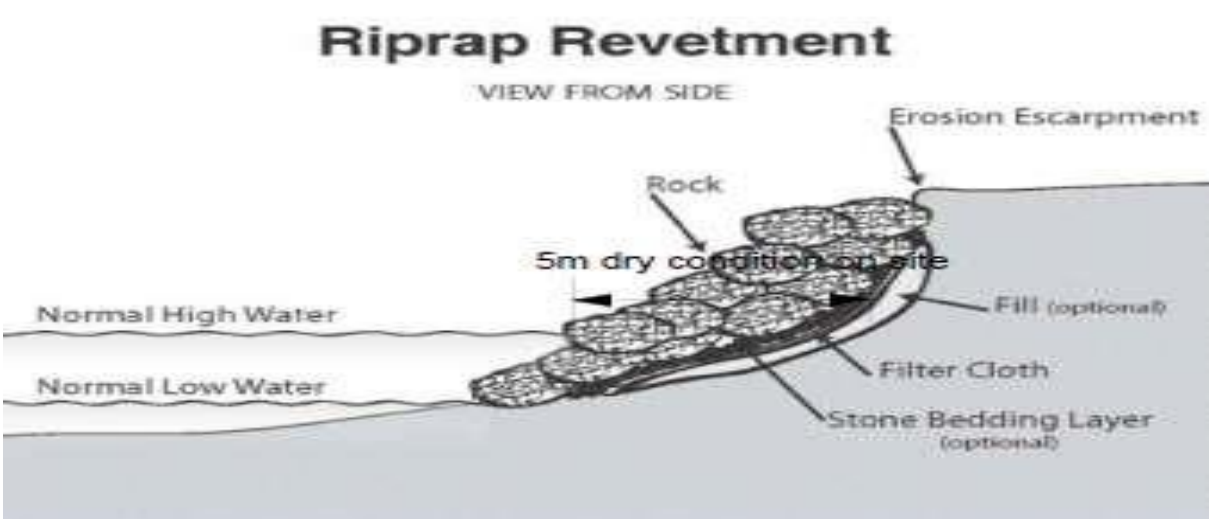
2) Concrete Column/ Piers

Surface preparation: Excavate to rock level, or Rip, level, stabilize and compact the site to 93-98%.MOD AASTHO layers with 150mm fill layers (G5 layer than G2 Layers) where rock level cannot be reached. The concrete columns/ piers will be constructed at a particular spacing as per the design and construction drawings to support the pipe as a permanent solution. Then the pipe will be laid on the columns. Refer to Figure below.



3) Earthworks

Surface preparation: Rip, level, stabilize and compact the site to 93-98%.MOD AASTHO layers with 150mm fill layers (G5 layer than G2 Layers).



(Existing gabion walls and reno-matress to be repaired and reinforced with closured at the ends)

4) **Pipe Repair**

- Install a new 250mm diameter uPVC sewer pipe approximately 75m long from manhole to manhole
- Demolishing and reconstruction of 2xNo of existing manholes

5) **Gabions and Pitching Along the Embankment**

- The works on this river should be done at winter seasons as the flood flows are high during summer season.
- Surface preparation for bedding of reno-mattresses
- Half width Temporary diversion of the river using Diversion using sandbags and importation of soil to supply and install geotextile, Reno, stones (dump rock, boulder, crusher) gabions and macmet to install erosion protection do the same methods on side where there is pipe

CONSTRUCTION PHASE

The construction phase entails the following:

1) **Site Preparation**

In preparation for the site, the site camp will be in close proximity to the construction works however; care will be taken to ensure that it is located outside a 1:100-year flood area and outside the proposed buffers recommended by the Aquatic Specialist. In addition, the camp will be in such area that does not disrupt traffic or storm water flow.

2) **Material Storage**

The material will be stored at the site camp.

3) **Waste Management**

The main solid waste expected is empty cement bags. The bags shall be reused if made of polypropylene or similar materials. However, if made of paper it will be put into the dust bins at

site for municipal collection and disposal. Small quantities of the bags may be reused as covers for schoolbooks. Other waste as that of unsuitable material from trenches (i.e., cannot be used to backfill) will be disposed of at the nearest licensed landfill disposal site. Waste than cannot be disposed of will be re-used on site.

4) Plant And Equipment on Site

The plant that will be expected on site is as follows: TLB/ Excavator, plate compactors, generators, Jack hammer and saw cutter, trucks, survey equipment, water tankers, compressors, pressure test machine, dewatering equipment, pipe cutting machine, concrete mixer, picks, and shovels.

5) Excavations

Excavations will be done to prepare the foundation of gabion wall and including the re-sloping for rip rap operations. In case of ground water will be controlled during the construction phase by pumping to ensure that the workers are able to work inside the trench/excavations. A sub-soil drainage system will be in place to ensure that the ground water does not seep into the excavations

6) Imported & Trench Material

The import material will be imported to site to fill the portion that has eroded by the floods. The material obtained from the trenches will be used to backfill and if material from trenches is not suitable than material be imported. The unsuitable material collected from the trenches will be disposed of at the nearest licensed waste disposal site.

- **Detailed Methodology of earthworks**

All personnel entering the site shall have received a site safety induction and have attended a job toolbox talk. Before any excavations shall commence a permit to excavate shall be issued by the site engineer and all persons involved in the task shall be fully briefed.

All setting out works required including level profiles and batter rails shall be set out by the site engineer prior to works commencing. Excavation shall be carried out in accordance with line and levels shown on Design drawings. Excavation shall be carried out by excavator with material being

hauled to fill area by dump trucks. When formation has been reached, the Contractor shall inform Employer's Site Representative (ESR). The area shall be jointly inspected by Contractor and ESR. Once the area has been deemed acceptable, a sign off sheet shall be completed.

Should any soft spots be encountered below formation level the area shall be excavated, recorded jointly by Contractor and ESR and replaced with acceptable fill material. All fill material (including capping) being used in permanent works shall be classified in accordance with the Specification.

i. Site engineer shall record all formation levels.

ii. All works will be executed within the permanent fencing boundary.

iii. Material testing to demonstrate compliance with NRA Specification for specific contract requirements will be undertaken.

7) Reinstatement

All services present on site will be completed to ensure that the site is restored to its original condition.

OPERATIONAL PHASE

Operation and maintenance are those activities needed to continuously fulfil this purpose. The difference between operations and maintenance is the following:

Operations -Involves the activities necessary to deliver the service, which includes monitoring the system state, running the system, and enforcing policies and procedures.

Maintenance-involves activities that keep the system in good operating condition, which entails condition assessment, servicing, repair, and replacement of system components. The operation of a sewer system should be done in such a way that there are no failures in the system. This includes the following:

- Maintaining proper operational in manholes and pipeline to avoid blockages.
- Regular inspection of river to maintain the erosion protection provided.

The Operations Department will ensure that the sewer line is well maintained and operate at the design capacity.

PROJECT LOCATION

The project is to be located in the Atholl Gardens, Sandton area, which falls under Regions E of the City of Johannesburg (COJ) Regions

Figure 1: Project location

Select the appropriate box

The application is for an upgrade of an existing development	X	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

The activity trigger the need for a water use license under Section 21 (c) and (i) of the Water Act. The sections state that:

- ✓ Section 21 (c): Impeding or diverting the flow of water in a watercourse
- ✓ Section 21(i): Altering the bed, banks, course or characteristics of a watercourse.

If yes, have you applied for the authorisation(s)?	YES	
If yes, have you received approval(s)? (attach in appropriate appendix)		NO

1.2 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 as amended).	National & Provincial	November 1998
National Water Act, 1998 (Act No. 36 of 1998) as amended	Provincial	1998
National Environmental Management: Waste Act (Act no. 59 of 2008) as amended	National & Provincial	March 2009
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	National & Provincial	April 1999
National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004)	National & Provincial	June 2004
Environmental Conservation Act, 1989 (Act No. 73 of 1989)	National & Provincial	June 1989
Environmental Impact Assessment Regulations, 2014 (as amended)	National	December 2014
DEA Guidelines on Public Participation	National DEA	October 2012
National Environmental Management: Waste Act, as amended	National & Provincial	November 2013
Occupational Health and Safety Act (No 85 of 1993)	National	June 1993
Gauteng Provincial Environmental Management Framework	Provincial	May 2015
Gauteng Environmental Implementation Plan 2015-2020	Provincial	2015
Gauteng Conservation Plan Version 3.3 (C-Plan 3.3)	Provincial	October 2011
Gauteng Urban Edge 2008 / 2009	Provincial	2009

Legislation, policy of guideline	Description of compliance
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	The listed activities triggered by the proposed bulk water supply pipeline have been identified and assessed in the EIA process being undertaken (i.e. Basic Assessment). This Basic Assessment Report will be submitted to the competent and commenting authority in support of the application for authorisation. While no permitting or licensing requirements arise directly, the holistic consideration of the potential impacts of the proposed project has found application in the EIA process. The implementation of mitigation measures are included as part of the EMPr and will continue to apply throughout the life cycle of the Project
National Water Act, 1998 (Act No. 36 of 1998) as amended	The objectives of the National Water Act, 1998 (Act No. 36 of 1998) have been addressed in the Water Use General Authorisation. Mitigation and management measures have been compiled in this Basic Assessment Report for the protection of natural water resources
National Environmental Management: Waste Act (Act no. 59 of 2008),) as amended	As no waste disposal site will be associated with the proposed pipeline, no permit is required in this regard. Waste handling, storage and disposal during construction and operation is required to be undertaken in accordance with the requirements of the Act, as detailed in the EMPr
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	The Act aims to promote the good management of the national heritage resources. According to the Act the South African Heritage Resources Agency (SAHRA) must be notified during the early planning phases of a project for any development that meet certain criteria. Any artefacts uncovered during the project life cycle will be reported to SAHRA as provided for in the EMPr
National Environmental Management Biodiversity Act, 2004	The Act provides for the management and conservation of South Africa's biodiversity within the framework of the

(Act No. 10 of 2004)	NEMA. Areas of high biodiversity need to be protected. Should any protected plants be found on site, these will be managed in consultation with GDARD
Conservation of Agricultural Resources Act (CARA) (Act No 43 of 1983)	A wetland impact assessment study was undertaken which identified fauna and flora and CARA was taken into account. The relevant mitigations measures were identified and are included in the EMPr
Environmental Impact Assessment Regulations, 2014 (as amended)	The proposed development constitutes activities listed under GN R. 983 and GN R. 985 (as amended); therefore, a Basic Assessment Report process is being followed to obtain authorisation from the GDARD
DEA Guidelines on Public Participation	This guideline was taken cognisance of during the Stakeholder Engagement process conducted for the proposed pipeline
National Environmental Management: Waste Act, as amended	No waste management license would be required for the construction or operational phases of the proposed activity. Only a limited amount of solid construction waste will be created on the site during the construction phase. Waste that is created will be hauled away and dumped at the nearest registered landfill site. Waste handling, storage and disposal during construction and operation is required to be undertaken in accordance with the requirements of the Act, as detailed in the EMPr
Occupational Health and Safety Act (No 85 of 1993)	The Act provides for the health and safety of persons at work and for the health and safety of persons in connection with the use of machinery; the protection of persons other than persons at work; and against hazards to health and safety arising out of or in connection with the activities of persons at work. The EMPr provides for measures to ensure that objectives of the Act are met on this site
APPLICABLE POLICIES AND GUIDELINES	
Gauteng Provincial Environmental Management Framework	The aim of the EMF is to guide the protection and enhancement of environmental assets and natural resources

	along with development patterns to ensure sustainable environmental management and development patterns within and around the Gauteng Province
Gauteng Environmental Implementation Plan 2015-2020	The plan seeks to ensure that the numerous governance controls or mechanisms, which set the targets and oversee the performance of the national and provincial Departments and Municipalities, are monitored. The recommendations proposed in the EMPr are in line with the environmental priorities and targets of the EIP 2015 – 2020
Gauteng Conservation Plan Version 3.3 (C-Plan 3.3)	The Gauteng Conservation Plan was considered in ensuring the protection of the surrounding ecology by preventing the sterilisation of soils and biodiversity. Moreover, the pipeline has been designed and will be laid in such a way as to prevent any further degradation to the disturbed upper reaches of the existing wetland.

1.3 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.

Please describe the process followed to reach (decide on) the list of alternatives below

Possible alternatives considered:

The following alternative types were initially discussed during the project design phase:

a) Pipeline connection points;

b) Pipeline route;

c) Pipeline layout along the route.

No technically and practically feasible alternatives existed for proposed project, and as such, these were not further investigated. No other connection location, or route alternatives have been proposed for the project as this is the only site available for the applicant

Provide a description of the alternatives considered

No.	**Alternative type**, *either alternative: site on property, properties, activity, design, technology, energy, operational or other(provide details of "other")*	**Description**
1	**Proposal**	
2	Alternative 1 (Preferred Alternative).	Erosion protection through Earthworks/Rip Rap and Gabion boxes and Mattresses. Option has high strength thus durable and cost effective and efficient long term. Overall alternative chosen was Alternative No.1 as it had a high useful life with high strength at a cost effective rate.
3	Alternative 2	Erosion protection through earthworks and stone pitching with macmats. Option has low strength thus not durable
4	Alternative 3	Erosion protection through earthworks and concrete works and reinforcement. Option has high strength thus durable but not cost effective in the long term

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

[redacted]

1.4 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 ***Total environmental (landscaping, parking, etc.) and the building footprint***	Approximately 2000m2
Alternatives:	
Alternative 1 (if any)	Approximately 2000m2
Alternative 2 (if any)	Approximately 2000m2

or, for linear activities:

	Length of the activity:
Proposed activity	75m
Alternatives:	
Alternative 1 (if any)	[redacted]
Alternative 2 (if any)	

m/km

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

	Size of the site/servitude:
Proposed activity	Approximately 2000m2

Alternatives:

Alternative 1 (if any)	Approximately 2000m2
Alternative 2 (if any)	Approximately 2000m2

Ha/m^2

1.5 Site Access

Proposal

Does ready access to the site exist, or is access directly from an existing road?	YES [redacted]
If NO, what is the distance over which a new access road will be built	N/A

Describe the type of access road planned:

Access is through 118 Dennis Road, Athol Gardens.

Include the position of the access road on the site plan (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?	YES [redacted]
If NO, what is the distance over which a new access road will be built	[redacted]

Describe the type of access road planned:

Not applicable

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?	YES [redacted]
If NO, what is the distance over which a new access road will be built	[redacted]

Describe the type of access road planned:

Not applicable

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

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

Section A 6-8 has been duplicated	**0**	Number of times

(only complete when applicable)

1.6 LAYOUT OR ROUTE PLAN

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);

layout plan is of acceptable paper size and scale, e.g.

- A4 size for activities with development footprint of 10sqm to 5 hectares;
- A3 size for activities with development footprint of > 5 hectares to 20 hectares;
- A2 size for activities with development footprint of >20 hectares to 50 hectares);
- A1 size for activities with development footprint of >50 hectares);

The following should serve as a guide for scale issues on the layout plan:

- A0 = 1: 500
- A1 = 1: 1000
- A2 = 1: 2000
- A3 = 1: 4000
- A4 = 1: 8000 (±10 000)

Shapefiles of the activity must be included in the electronic submission on the CD's; the property boundaries and Surveyor General numbers of all the properties within 50m of the site; the exact position of each element of the activity 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, sewage pipelines, septic tanks, storm water infrastructure; servitudes

indicating the purpose of the servitude; sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) 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);

Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometers, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

REFER TO APPENDIX A – A3 MAPS

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**.** It should be supplemented with additional photographs of relevant features on the site, where applicable.

REFER TO APPENDIX B – SITE PHOTOGRAPHS

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.

REFER TO APPENDIX C – FACILITY ILLUSTRATION

2 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 | **0** | 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 alterative 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 | **0** | times (complete only when appropriate)

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

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.

Section B - Section of Route | **0** | (complete only when appropriate for above)

Section B – Location/route Alternative No. | **0** | (complete only when appropriate

| | for above)

2.1 Property Description

Province	Gauteng
Municipality	City of Johannesburg
Ward Number	
Farm name and number	
Portion number	
SG code	

2.2 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):**

[redacted]

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
Starting point of the activity	26°06'25.3"	28°04'22.8"
Middle point of the activity	26°06'24.31"	28°04'22.56"
End point of the activity	26°06'23.4"	28°04'22.5"E

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached **REFER TO APPENDIX H**

The 21-digit Surveyor General code of each cadastral land parcel

REFER TO SECION 2.1 ABOVE UNDER PROPERTY DESCRIPTION

2.3 Gradient Of the Site

Indicate the general gradient of the site.

Flat	

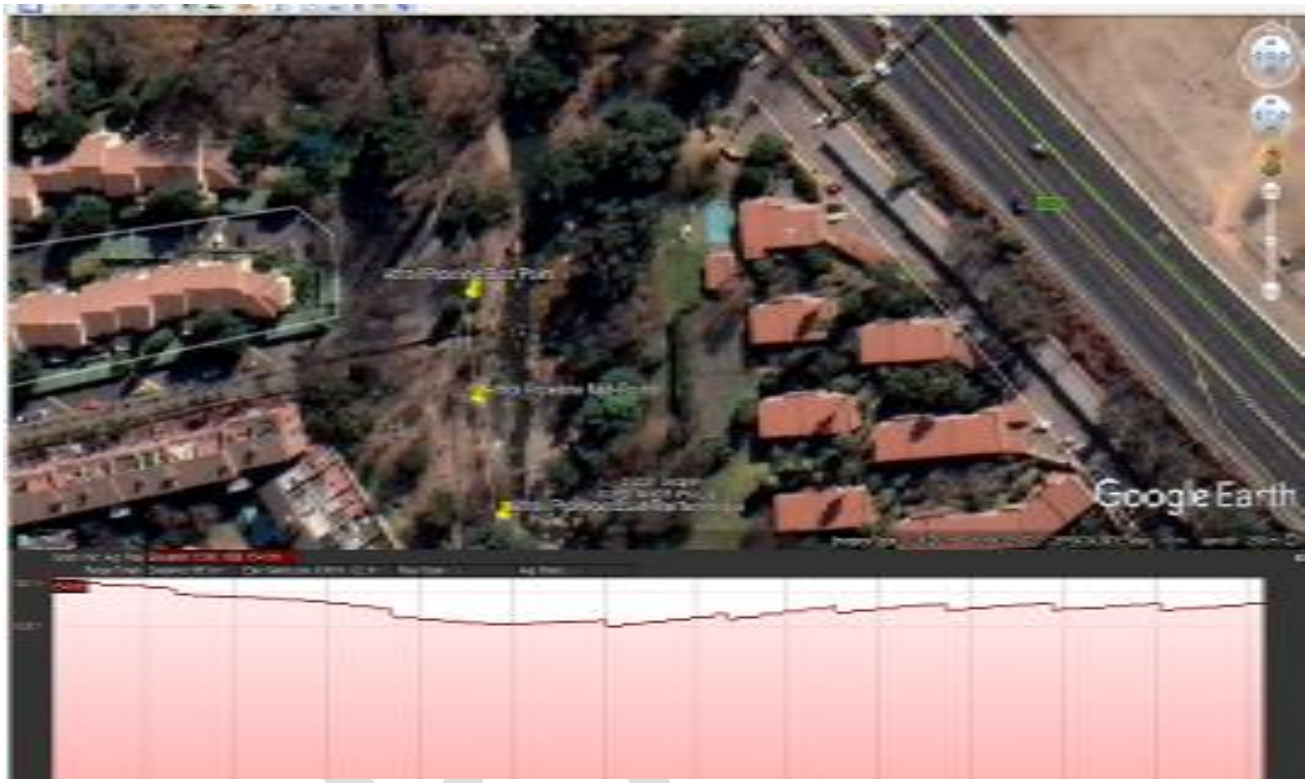


Figure 2: Site elevation and gradient

2.4 Location In Landscape

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

	River front

2.5 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)	YES	
Dolomite, sinkhole or doline areas		NO
Seasonally wet soils (often close to water bodies)	YES	
Unstable rocky slopes or steep slopes with loose soil		NO
Dispersive soils (soils that dissolve in water)		NO

Soils with high clay content (clay fraction more than 40%)	YES	
Any other unstable soil or geological feature		NO
An area sensitive to erosion	YES	

(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

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

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

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

2.6 Agriculture

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)? NO

Please note: The Department may request specialist input/studies in respect of the above.

2.7 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

			Landscaped (vegetation) % =80
	Paved surface (hard landscaping) % =28	Building or other structure % =90	Bare soil % =2

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

If YES, specify and explain:

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

If YES, specify and explain:

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

If YES, specify and explain:

The development is along Jukskei River.

Was a specialist consulted to assist with completing this section		YES	[redacted]
If yes complete specialist details			
Name of the specialist:	Witness Dube		
Qualification(s) of the specialist:	Bsc Hons Environmental Sciences		
Postal address:	51 Lloyd Street, Kempton Park		
Postal code:	1618		
Telephone:		Cell:	0726389634
E-mail:	witdube@yahoo.co.uk	Fax:	
Are any further specialist studies recommended by the specialist?		[redacted]	NO
If YES, specify:	Not applicable		
If YES, is such a report(s) attached?		[redacted]	
If YES list the specialist reports attached below			
Not applicable			

Signature of specialist:		Date:	

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

2.8 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

[redacted]	2. River, stream, wetland	[redacted]	
	8. Low density residential		10. Informal residential

NOTE: Each block represents an area of 250m X 250m, if your proposed development is larger than this please use the appropriate number and orientation of hashed blocks

NORTH

8,2,12	**8,12,13**	**8,12,13**	**8,12,13**	**8,12,13**
8,12,13	**10,8,2**	**8,2**	**8,2**	**8,12,13**
8,12,13	**13,8,2**	**SITE**	**2,8,2**	**8,12,13**
8,12,13	**13,8,2**	**13,8,2**	**13,8,2**	**8,12,13**
8,12,13	**8,12,13**	**8,12,13**	**8,12,13**	**8,12,13**

WEST

EAST

SOUTH

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	YES

If yes indicate the type of reports below

a) Freshwater and Aquatic Assessment

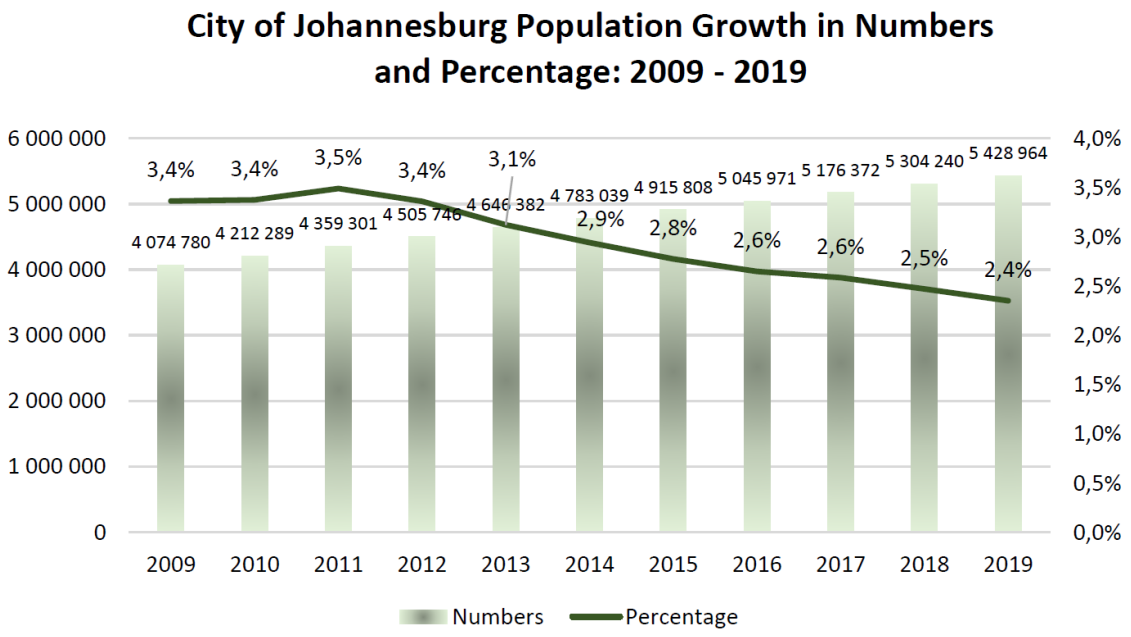
b) Ecological Assessment

2.9 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.

City Of Johannesburg Population

Johannesburg is home to about 5.5 million people, making it the biggest metro by population size in South Africa. The metro also prides itself as the economic and financial hub of the country. In 2018, the city housed nearly 10% of South Africa's total population. Since 2011 the population growth rate has been declining from 3,5% to 2,4%. However, this was significantly higher than the Gauteng and National average, indicating that the City remains an inward migration pole.

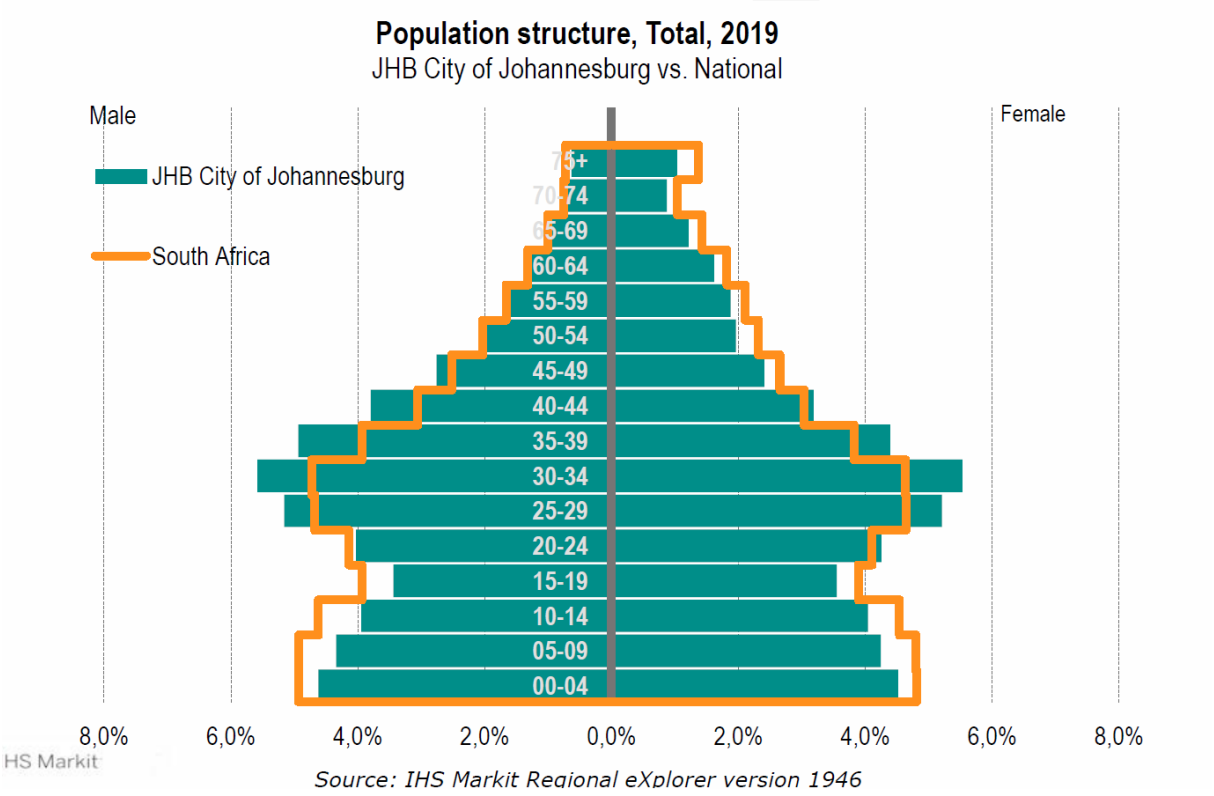


Gender, Age and Race.

In Johannesburg, during the 2016 Household Survey there was an equal split between women and men. Currently, the male/female split in population is 100.3 males per 100 females in 2018. The

City of Johannesburg Metropolitan Municipality has more males (50.06%) relative to South Africa (48.96%). In total there were 2.57 million (49.94%) females and 2.58 million (50.06%) males. This distribution holds for Gauteng as a whole where the female population is 6.95 million which constitutes 49.75% of the total population of 14 million.

The largest share of Johannesburg's population, about 40%, is within the young working age (25-44 years) category. Relative to the national population, Johannesburg has a significantly larger share of the working age population between 25 and 49 years old. This may be because young people migrate to Johannesburg to look for opportunities.



Source: IHS Markit Regional eXplorer version 1946

The female population for the 20 to 34 years age group amounts to 16.1% of the total female population, the male population group for the same age amounted to 16.7% of the total male population. The largest share of population is within the young working age (25-44 years) age category with a total number of 2.03 million or 39.5% of the total population.

In terms of race, the City's population consists of 80.17% Black Africans (4.13 million), 9.79% White (504 000), 5.27% Coloured (272 000) and 4.76% Asian (245 000) people in 2018.

Households

In 2018, the City of Johannesburg Metropolitan Municipality comprised of 1.68 million households. This equates to an average annual growth rate of 3.04% in the number of households from 2008 to

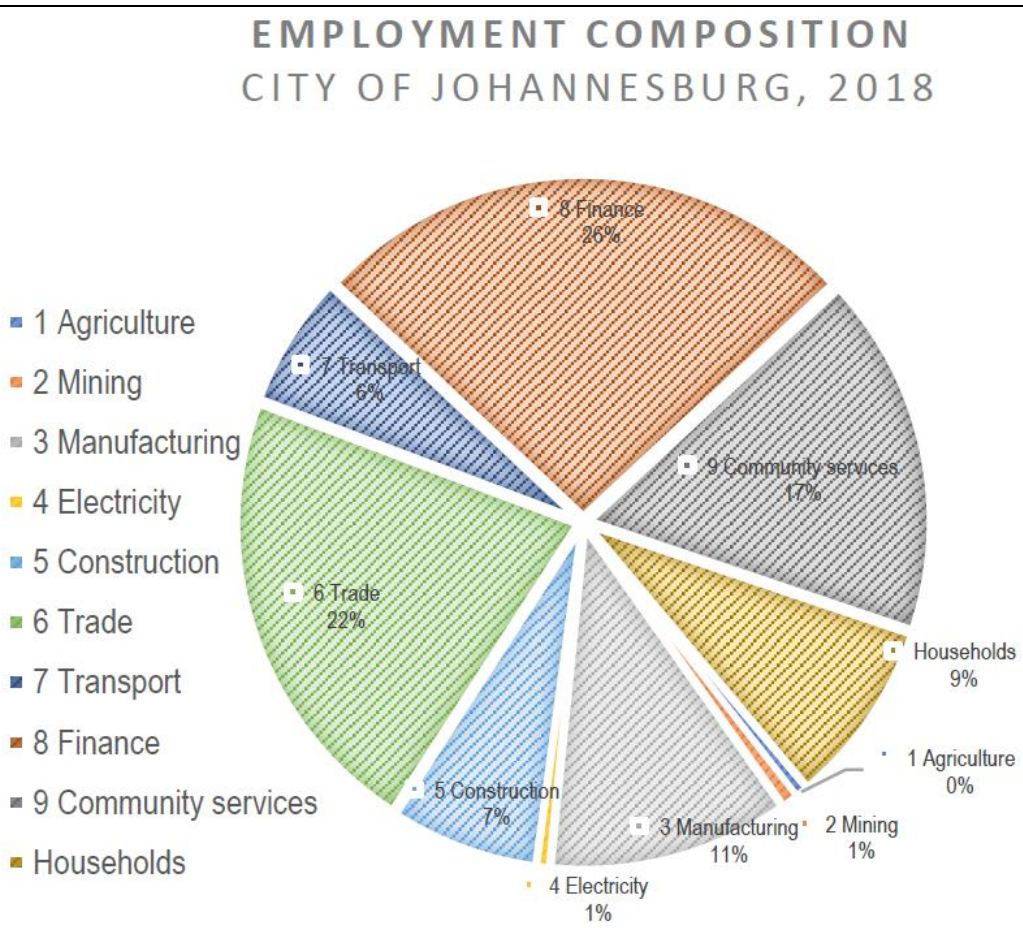
2018. With an average annual growth rate of 2.91% in the total population, the average household size in the City of Johannesburg Metropolitan Municipality is decreasing. The average household size in 2008 decreased from approximately 3.9 individuals per household to 3.1 persons per household in 2018.

About 37.7% of Households in the City are women headed. This figure is slightly higher than the rate in Gauteng: 35.86% and about 90% of the rate in South Africa (41.32%). In 2018 there were 5 144 child headed households. These constitute about one-third of the figure in Gauteng (15,241) and less than 10% of the figure in South Africa (111,471).

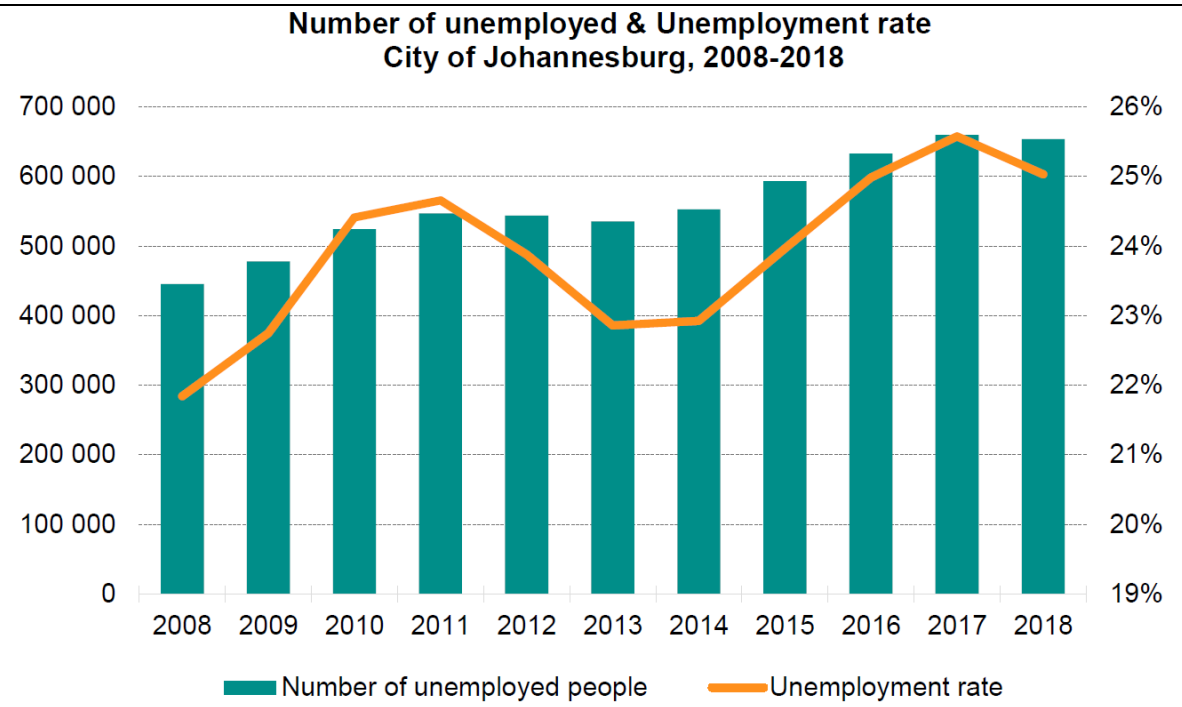
Employment/Unemployment

52,6% of the economically active population are employed, in Johannesburg. 77% of them are employed in the formal sector. The finance sector employs the most with for 26.1% of those employed in that sector. 22% are employed in the trade and retail sector. 17% are in the community services sector which includes the general government services, given that the provincial capital is in the city.

The agriculture sector employs the least share of people at 0.6%.



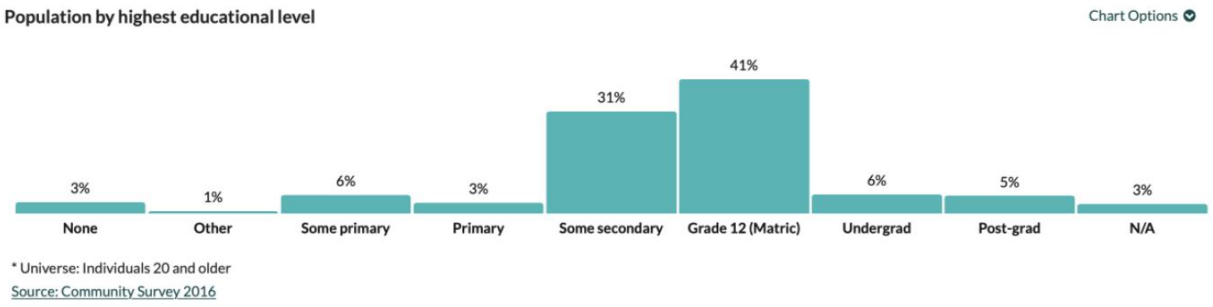
8% of the employed are employed in the informal sector, which has significantly grown from employing 225 000 people in 2008 to an estimated 351 000 in 2018. The City continues to fight unemployment, which is one of the major challenges facing South Africa. Unemployment in the city is currently at 26,5% and youth unemployment is estimated to be over 46,6%. Youth unemployment is a critical challenge facing the City. Slow formal sector growth is the major causes of youth unemployment. Although over 65,5% of young people have completed matric only 9% have post matric qualifications consequently, the majority of youth due to their low skills are employed in the wholesale, retail & trade and private households. Only 5% of young people are employed in the highly skilled manufacturing sector, thus pointing to a need for education and skills development targeting this youth.



Source: IHS Markit Regional eXplorer version 1692

Education and Skills Profile

According to the 2016 Community Survey 53% of Johannesburg's residents had completed matric, which is 25% higher than the national average. 6% had an undergraduate degree and 5% a post graduate qualification. 3% have no education.



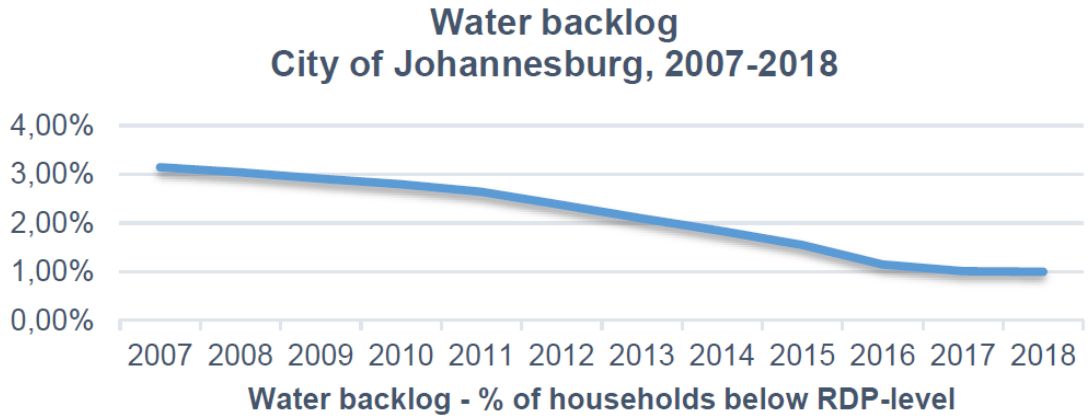
The number of people without any schooling decreased from 2008 to 2018 by an average annual rate of -1.97%, while the number of people within the 'matric only' category, increased from 848,000 to 1.28 million. The number of people with 'matric and a certificate/diploma' increased with an average annual rate of 2.63%, with the number of people with a 'matric and a Bachelor's' degree increasing with an average annual rate of 4.72%. Overall improvement in the level of education is visible.

There are 5 education circuits in Johannesburg with 1 232 schools of which 481 are independent

schools. This means just under 44% of the province's schools are in Johannesburg. In total there are 889 036 learners of which 172 358 are in the independent schools. This constitutes 38% of the province's leaners. The City has 30 186 educators, this means that about 37% of the province's educators are in the City if Johannesburg.

Water Services

A total of 1.47 million (98.4%) households in the city have access serviced through yard connection in formalised areas and through communal standpipes within a maximum walking distance of 200 metres in informal settlements. The City has been successful in reducing water backlogs over time. It can be seen that the percentage of households has shown a significant decrease, dropping annually by -7.14% between 2007 and 2018.

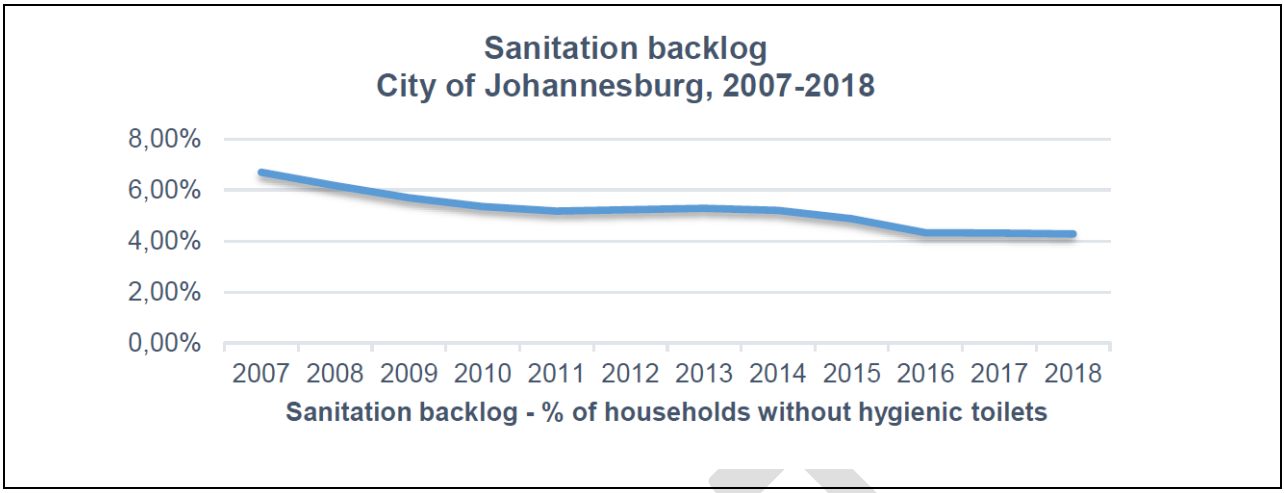


Source: IHS Markit Regional eXplorer version 1870

Sanitation

A total of 1.36 million (92.7%) of all households in the city of Johannesburg have access to sanitation through individual sewer connection to properties in formalised areas and at basic level through VIPs and ablution blocks in informal settlements. The sanitation backlog (number of households without hygienic toilets) has been steadily decreasing in the past 10 years, in 2018 there were 113 899 households with no access to basic level of sanitation which is reduced to 109 065 in 2019.

The City has made advances in the backlog associated with sanitation, but there is still more work to be achieved. The percentage of households without hygienic toilets has decreased annually at -1.05% between 2007 and 2018.



2.10 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

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 50m 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?	[redacted]	NO

If YES, explain:

[redacted]

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:

No structures or items of archaeological significance were found

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

If yes, please attached the comments from SAHRA in the appropriate Appendix

3 SECTION C: PUBLIC PARTICIPATION (SECTION 41)

The Environmental Assessment Practitioner must conduct public participation process in accordance with the requirement of the EIA Regulations, 2014.

3.1 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.

Was the draft report submitted to the local authority for comment?	YES	[redacted]

If yes, has any comments been received from the local authority? [redacted] NO

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

Comments not yet received

If "NO" briefly explain why no comments have been received or why the report was not submitted if that is the case.

The project is for the local authority

3.2 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? [redacted] NO

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

[redacted]

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

The PPP is currently ongoing. Any comments received will be included in the final BAR

3.3 General Public Participation Requirements

The Environmental Assessment Practitioner must ensure that the public participation process 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 flawed.

The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report 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.

3.4 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 1 – Proof of site notice

Appendix 2 – Written notices issued as required in terms of the regulations

Appendix 3 – Proof of newspaper advertisements

Appendix 4 –Communications to and from interested and affected parties

Appendix 5 – Minutes of any public and/or stakeholder meetings

Appendix 6 - Comments and Responses Report

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 –Comments from I&APs on amendments to the BA Report

Appendix 9 – Copy of the register of I&APs

4 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 alterative 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 | **0** | times

(complete only when appropriate)

Section D Alternative | "insert alternative number" | (complete only when appropriate

No.		for above)

4.1 Waste, effluent, and emission management

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	YES [redacted]
If yes, what estimated quantity will be produced per month?	±5 m^3

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

Waste skips/bins will be provided throughout the construction site with separate skips/bins made available for construction debris and solid waste. Solid waste that is unsuitable for re-use for construction will be transported to a registered landfill site to avoid the pollution of surrounding areas and roads, as well as to minimize nuisance impacts such as dust and odors.

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

Waste that can be reused or recycled will be disposed of at the licensed municipal waste disposal site.

Will the activity produce solid waste during its operational phase?	[redacted] NO
If yes, what estimated quantity will be produced per month?	N/A

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

Construction waste that can be recycled will be recycled. Only waste that cannot be reused, reduced or recycled will be disposed at a licensed waste disposal site.

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 [redacted]

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

[redacted]

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?	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?	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:

Waste Receptacles will be provided for different types of waste to enable waste segregation.

4.2 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?	NO
If yes, what estimated quantity will be produced per month?	
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?	NO
Will the activity produce any effluent that will be treated and/or disposed of on site?	NO
If yes, what estimated quantity will be produced per month?	

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

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?	NO

If yes, provide the particulars of the facility:

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

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

4.3 Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?	NO
If yes, what estimated quantity will be produced per month?	
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?	NO
Will the activity produce any effluent that will be treated and/or disposed of on site?	NO

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

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	NO
If yes, is it controlled by any legislation of any sphere of government?	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.

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

Particulate Matter

Some of these tiny particles are formed during combustion (primary PM). Others are formed in the atmosphere through chemical reactions between the various pollutants found in exhaust (secondary PM). PM2.5 may contain many substances including metals, acids, carbon, and polycyclic aromatic hydrocarbons. Diesel engines emit far greater amounts of PM than do gasoline engines.

Volatile organic compounds (VOCs)

VOCs are a large class of carbon-containing compounds. In vehicle exhaust, VOCs come from unburned or partially-burned fuel. Additional VOC emissions come from evaporation of fuel (particularly during refueling). Gasoline engines emit a higher proportion of VOCs than diesel engines, due to the greater volatility of the fuel.

Carbon Monoxide (CO)

CO results from the incomplete combustion of vehicle fuels. Gasoline engines emit a higher proportion of CO than diesel engines, due to the lower combustion temperature.

Sulphur Dioxide (SO2)

SO2 is emitted from the combustion of Sulphur contained in the fuel. Most SO2 is from diesel engines as diesel has much more Sulphur than gasoline.

Air Toxics

Vehicles emit toxic air pollutants such as benzene, 1,3-butadiene, acrolein, formaldehyde and polycyclic aromatic hydrocarbons (PAH). Some of these components are VOCs, while others are contained in particle.

Coolants

Older vehicles may have air conditioning systems using Freon, an ozone depleting substance, as a refrigerant. This Freon could be emitted through leaks, or during repairs. Newer vehicles use non-ozone-depleting coolant. The coolants in newer vehicles are still pollutants as they act as greenhouse gases.

Passenger car emissions summary ("Average Annual Emissions and Fuel Consumption for Passenger Cars and Light Trucks" .Transportation and Air Quality. United States Environmental Protection Agency.)

Component	Emission Rate	Annual pollution emitted
Hydrocarbons	2.80 grams/mile (1.75 g/Km)	77.1 pounds (35.0 kg)
Carbon monoxide	20.9 grams/mile(13.06 g/Km)	575 pounds (261 kg)
NO_x	1.39 grams/mile (0.87 g/Km)	38.2 pounds (17.3 kg)
Carbon dioxide	0.916 pounds per mile (258 g/km)	11,450 pounds (5,190 kg)

4.4 Water Use

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

	the activity will not use water

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:

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

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

If yes, list the permits required

Water Use License

If yes, have you applied for the water use permit(s)?	YES	
If yes, have you received approval(s)? (attached in appropriate appendix)		NO

4.5 Power Supply

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

N/A

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

N/A

4.6 Energy Efficiency

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

N/A

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

N/A

5 SECTION E: 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 as well as the impacts of not implementing the activity (Section 24(4)(b)(i).

5.1 Issues raised by interested and affected parties

Summaries the issues raised by interested and affected parties.

Any issues raised will be included in the final BAR.

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)

(A full response must be provided in the Comments and Response Report that must be attached to this report):

Section to be completed once comments have been received

5.2 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 establish a coherent framework within which all impacts could be objectively assessed, it was deemed appropriate to establish a rating system, to be applied consistently to all the criteria. For such purposes each aspect was assigned a value ranging from one (1) to four (4) depending on its definition. The tables below provide a summary of the criteria and the rating scales used in the assessment of potential impacts. The impacts associated with the project were evaluated according to the nature, extent, duration, intensity, probability and significance rating of the impacts as explained below.

Nature: classification of whether the impact is positive or negative, direct or indirect
Extent: spatial scale of impact and classified as: • Site: the impacted area is the whole or significant portion of the site. • Local: Within a radius of 2 km of the construction site. • Regional: the impacted area extends to the immediate, surrounding and neighbouring properties. • National: the impact can be considered to be of national significance. o International: impact has international ramifications

Duration: Indicates what the lifetime of the impact will be and is classified as:

- Short term: The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase.
- Medium term: The impact will last for the period of the construction phase, where after it will be entirely negated.
- Long term: The impact will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter. The only class of impact which will be non-transitory.
- Permanent: Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient.

Intensity: Describes whether an impact is destructive or benign;

- Low: Impact affects the environment in such a way that natural, cultural and social functions and processes are not affected.
- Moderate: Affected environment is altered, but natural, cultural and social functions and processes continue albeit in a modified way.
- High: Natural, cultural and social functions and processes are altered to extent that they temporarily cease.
- Very High: Natural, cultural and social functions and processes are altered to extent that they permanently cease.

Probability: Describes the likelihood of an impact occurring:

- **Improbable:** Likelihood of the impact materialising is very low
- **Possible:** The impact may occur
- **Highly Probable**: Most likely that the impact will occur o Definite: Impact will certainly occur

Significance: Based on the above criteria the significance of issues was determined. The total number of points scored for each impact indicates the level of significance of the impact, and is rated as:

- **Low:** the impacts are less important.
- **Medium:** the impacts are important and require attention; mitigation is required to reduce the negative impacts.
- **High:** the impacts are of great importance. Mitigation is therefore crucial.

Cumulative: In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area

Mitigation: Mitigation for significant issues is incorporated into the EMP.

CRITERIA FOR IMPACTS RATING

CRITERIA	DESCRIPTION			
Extent	**National** - The whole of South Africa	**Regional-** Provincial and parts of neighbouring provinces	**Local-** Within a radius of 2km of the site	**Site-** Confined to the construction site
Duration	**Permanent** -Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient	**Long-term -** The impact will continue or last for the entire operational life of the development but will be mitigated by direct human action or by natural processes thereafter. The only class of impact which will be non-transitory	**Medium-term -**The impact will last for the period of the construction phase, where after it will be entirely negated	**Short-term -** The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase
Intensity	**Very High-** Natural, cultural and social functions and processes are altered to extent that they permanently cease	**High -** Natural, cultural and social functions and processes are altered to extent that they temporarily cease	**Moderate -** Affected environment is altered, but natural, cultural and social functions and processes continue	**Low -**Impact affects the environment in such a way that natural, cultural and social functions are not altered
Probability	**Definite** – Impact will certainly occur	**Highly Probable** - Most likely that the impact will occur	**Possible** - The impact may occur	**Improbable -** Likelihood of the impact materializing is very low
Rating	**4**	**3**	**2**	**1**

SIGNIFICANCE RATING

IMPACT	POINTS	DESCRIPTION
Low	4-6	An acceptable impact for which mitigation is desirable but not essential. The impact by itself is insufficient even in combination with other low impacts to prevent the development being approved. These impacts will result in either positive or negative medium to short term effects on the social and/or natural environment
Medium	7-9	An important impact which requires mitigation. The impact is insufficient by itself to prevent the implementation of the project but which in conjunction with other impacts may prevent its implementation. These impacts will usually result in either a positive or negative medium to long-term effect on the social and/or natural environment
High	10-12	A serious impact that may prevent the implementation of the project (if it is a negative impact). These impacts would be considered by society as constituting a major and usually a long-term change to the (natural &/or social) environment and result in severe effects or beneficial effects.
Very High	13-16	A very serious impact which, if negative, may be sufficient by itself to prevent implementation of the project. The impact may result in permanent change. Very often these impacts are unmitigatable and usually result in very severe effects, or very beneficial effects
Status	Denotes the perceived effect of the impact on the affected area	
Positive (+)	Beneficial impact	
Negative (-)	Adverse impact	
Negative impacts are shown with a (-) while positive ones are indicated as (+)		

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.

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
PROPOSED ACTIVITY				
PLANNING AND DESIGN				
Policy Compliance The proposed development may not be consistent with relevant environmental policy and/or spatial guideline documents, (e.g. close to a watercourse).	-ve	Development must comply with relevant legislation and/or policy, e.g., Municipal By-laws, SDFs, etc.	-ve	Low
Job Creation The project will result in temporary job creation and skills development during the construction and operation phase	+ve	No mitigation	+ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
Inadequate planning for routing of sewer pipeline and erosion protection measures Inappropriate routing of sewer line and erosion protection will lead to sedimentation and erosion of the banks of Jukskei River.	-ve	A stormwater management plan must be drawn up by a qualified engineer and approved by DWS.	-ve	Low
		CONSTRUCTION PHASE		
Site clearing affecting soils and Jukskei River. Exposure of soils, leading to increased runoff and erosion, and thus increased sedimentation of the river; • Increased sedimentation of the river, leading to	-ve	• Site camp and stockpiles to be established outside of the delineated riparian habitat and the applicable setback zone in consultation with the appropriate authority; • Retain as much indigenous vegetation as possible on the riverbanks;	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
smothering of biota and potentially deteriorating surface water quality.		• No vehicle servicing or re-fuelling is to take place outside of the freshwater resources and its applicable setback zone; • Areas where bank failure is observed as a result of the construction activities, it should be immediately repaired; • The river, and the applicable setback area should be clearly demarcated with danger tape by an ECO and marked as a no-go area. • Construction should be done during the dry season to avoid flooding risk which will increase contamination and affect construction activities.		

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
Soil contamination. • Spillage of chemicals or oil leaks from construction vehicle may result in the contamination of the soil and groundwater. • Storm water runoff may cause erosion of topsoil.	-ve	• Contaminated soil must be treated on site using a spillage kit. • All earthworks must be adequately controlled and managed • Any excavations must be clearly marked and demarcated. • Bare areas must be revegetated as soon as works in that area is completed. • Construction should be done during the dry season to avoid flooding risk which will increase contamination and affect construction activities.	-ve	Low
Noise Noise generated during construction can result in nuisance impact to neighboring property owners and office dwellers.	-ve	• SANS 10103 and the National Noise Control Regulation should be used as the main guidelines for addressing the potential noise impact on this project. • With regard to unavoidable very noisy construction activities in the vicinity of	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		noise sensitive areas, these should be screened off with acoustic screens, where possible. If no acoustic screening is used during exceptionally noisy construction times, prior warning to community members would be extremely important. • As construction workers operate in a very noisy environment, it must be ensured that their working conditions comply with the requirements of the Occupational Health and Safety act (Act No.85 of 1993) where necessary ear protection gear should be worn.		
Geology and soils – • Loss of soil from excavations due to erosion. • Soil erosion due to	-ve	• Implementation of anti-erosion measures such as temporary river diversion to reduce the water velocity. • Excavation must not be left open for longer than four weeks.	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
ineffective storm water management. It is anticipated that erosion incidences might occur during wet seasons especially on the riverbanks.		• Proper storm water management measures must be put in place.		
Fauna and flora • Construction activities may result in habitat destruction adjacent to the pipeline route and Jukskei River which will impact significantly on the aquatic communities; • Vegetation degradation and alien invasive proliferation	-ve	• Any fauna directly threatened by the construction activities should be removed to a safe location by a suitably qualified person. • The collection, hunting or harvesting of any animals/amphibians at the site should be strictly forbidden. • Vegetation clearing should be kept minimal and only area to be used for construction should be cleared. • Where soil disturbance is required for	-ve	

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on the riverbanks.		the laying of service infrastructure, the topsoil should be put aside and replaced after the infrastructure has been installed. • Areas to be cleared should be demarcated. • Ensure that all activities impacting on the Jukskei River are managed per the relevant DWS Licensing regulations; • Construction should be done during the dry season to avoid flooding risk which will increase contamination and affect construction activities.		
Topography Risk of erosion as areas designated for the construction are within the riverbanks.	-ve	• River diversion will be done, to reduce flow velocity and allow construction to take place minimal contamination of the Jukskei River. • Remove vegetation only on areas	-ve	

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		earmarked for construction. Construction to follow immediately after vegetation clearance. • Avoid placing of stockpiles and other services on areas likely to pose obtrusive visual impact		
Jukskei River: • Altered runoff patterns, leading to increased erosion and sedimentation of freshwater habitat; • Constriction of flow leading to turbulent erosive flow of increased velocity and possible loss of recharge	-ve	• Should it be necessary to clear any areas of vegetation, these areas, including contractor laydown areas, must remain as small as possible, to reduce the risk of further proliferation of alien vegetation, and to retain a level of protection to the river during construction (e.g. sediment trapping, slowing of storm water runoff etc.); • Construction should be done during the dry season to avoid flooding risk which	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
to downstream areas, impacting on downstream biota; • Disturbances of soils leading to increased alien vegetation proliferation, and in turn to further altered freshwater habitat; • Increased turbidity caused by activity within the active channel; • Erosion of the exposed excavations; • Potential impacts on water quality and contamination of soils		will increase contamination and affect construction activities. • All proposed activities will potentially result in bank destabilisation, and reduction in bank incision and sedimentation of the river, therefore, sediment control devices should be installed in place prior to diverting the flow; • Ensure that the creation of the diversion (by means of sandbags) does not result in a significant water level difference upstream or downstream of the site; • The diversion sandbags should be filled with material from the river so as to prevent foreign material to be introduced to the river; • The duration of impacts within the river		

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
within the river due to concrete being cast within the active channel; • Potential of backfill material to enter the river, increasing the sediment load of the river; • Altered flow regime as a result of solid wastes within the wetlands; • Altered water quality due to chemical waste disposal**;** • Possible contamination of freshwater soils and surface water, leading to		should be minimised as far as possible by ensuring that the duration of time in which flow alteration and sedimentation will take place is minimised. Therefore, the construction period should be kept as short as possible; and • Restrict construction activities to the drier months wherever possible, so as to limit the possibility of permanent changes to the system. • During trenching, soil removed from the dewatered section should be stockpiled as far as possible from the riparian zone of the river; • Excavated materials (from the trenches) should not be contaminated and it should be ensured that the minimum surface area is taken up, however the stockpiles may not exceed 2m in height. Mixture of		

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
reduced ability to support biodiversity		the lower and upper layers of the excavated soil should be kept to a minimum, so as for later usage as backfill material; and • All exposed soils must be protected for the duration of the construction phase with a suitable geotextile (e.g. Geojute or hessian sheeting) in order to prevent erosion and sedimentation of the river.		
Traffic • If vehicles are not maintained, it may lead to contamination and unnecessary noise. • Slow moving vehicles, if utilizing public access routes, could cause congestion at peak	-ve	• Delivery of equipment must be undertaken within the minimum reasonable number of trips. • Planning of site delivery hours must be scheduled to avoid weekends and evenings, as far as possible. •	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
visitor times. • If delivery of equipment and materials are not planned carefully it may lead to a visual and noise impacts				
Waste Generation Waste generation during the construction phase will have a negative impact on the environment, if not controlled adequately. Waste streams likely to include domestic waste, spent grinding material, mixed concrete, construction rubble and other construction waste	-ve	• Care should be taken not to dump waste indiscriminately this could have a negative impact on the ecosystem and may lead to injury to humans and animals. **Construction Rubble:** • All rubble must either be used on site as part of the existing development or must be taken off the site and disposed of at an approved site. • Rubble must not be dumped on the ground but must be placed in a skip bin	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		for regular removal as possible. **Litter management:** • Refuse bins must be placed at strategic positions to ensure that litter does not accumulate within the construction site. These should be kept covered and arrangements made for them to be collected regularly from the site. • A housekeeping team should be appointed to regularly maintain the litter and rubble situation on the construction site. • Waste disposal will need to take place in terms of section 20 of the Environment Conservation Act (Act N0.73 of 1998). • Littering by the employees of the Contractor shall not be allowed under any circumstances. The ECO shall monitor the		

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		neatness of the construction site.		
Disruption of residents' movements through access road. The only feasible access is through number 118 Dennis Road, which is a housing complex.	-ve	• The working area (disturbance corridor) and all exposed trenches must be fenced off with barrier netting, danger tape & droppers. • Warning signage must be erected as appropriate to warn road-users of the presence of construction workers and construction vehicles.	-ve	Low
Air quality • Short-term negative impacts on the air quality will occur from dust and exhaust fumes during construction.	-ve	**Dust control** • Wheel washing and damping down of un-surfaced and un-vegetated areas, taking water saving into account. • Excavations and other clearing activities must only be done during agreed working times and permitting weather conditions to avoid drifting of sand and dust into adjacent areas.	-ve	Low

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		• Any complaints or claims emanating from the lack of dust control shall be attended to immediately by the contract and ECO.		
Safety and Security A construction site can act as a magnet to the unemployed, resulting in large numbers of people gathering around the site, thereby posing a security risk in the area.	-ve	• Strict control of personnel accessing the site must be implemented. • No loitering around the site for people seeking temporary employment is to be allowed • Health and Safety Officer to be appointed to continuously monitor the safety conditions during construction. • All construction staff must have the appropriate PPE and name tags or access cards for complex security to easily identify them. • Staff handling chemicals or hazardous materials must be trained in the use of the substances and the environmental,	-ve	Low

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		health and safety consequences of incidents. • Record and report any environmental, health and safety incidents to the responsible person. • Signs should be erected to warn of construction activities. • The site and crew are to be managed in strict accordance with the Occupational Health and Safety Act (Act No. 85 of 1993) and the National Building Regulations and Complex Board Corporate Rules. • All structures that are vulnerable to high winds must be secured. • Potentially hazardous areas such as trenches are to be cordoned off and clearly marked at all times.		

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		• The basic spill control kit must be available at each construction camp within the site. • The Contractor is to ensure traffic safety at all times and shall implement road safety precautions for this purpose. • All vehicles and equipment used on site must be operated by appropriately trained and / or licensed individuals in compliance with all safety measures as laid out in the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA). • An environmental awareness training programme for all workers shall be put in place by the Contractor. Before commencing with any work, all workers shall be appropriately briefed about the EMPr and relevant occupational health		

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		and safety issues. • Adequate emergency facilities must be provided for the treatment of any emergency on the site. Emergency procedures must be available on site and communicated to all. • The nearest emergency service provider must be identified, and Emergency contact numbers are to be displayed conspicuously at prominent position.		
Socio economic Employing and training local labour will result in the availability of skilled labour force in the area.	+ve	No mitigation needed	+ve	N/A
Impacts to Cultural/ Historical Resources	-ve	Any artefacts or cultural resources encountered during construction must be preserved and removed with the assistance of a qualified specialist	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
OPERATIONAL PHASE				
Erosion This is because of poor slope stabilisation and poor rehabilitation/re-vegetation	-ve	• Vegetation should be retained where possible to avoid soil erosion • Re-vegetation of disturbed surfaces should occur immediately after the construction activities are completed to encourage water seepage. • A maintenance plan should be in place to address re-occurrence of riverbank erosion.	-ve	Low
Fauna and Flora The establishment of vegetation after rehabilitation		• Upon completion of construction and rehabilitation the ECO should assess and approve the adequacy of the rehabilitation and ensure that sufficient levels of rehabilitation have been undertaken to allow re-establishment of the necessary vegetation.		

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		• Rehabilitation works should be monitored until 80 % of vegetation has established		
Surface Water Contamination Contamination of Jukskei River due to pipeline burst.	-ve	• Regular inspections and maintenance of the pipeline must be undertaken during the operational phase, with any leaks repaired immediately. • Any damage/erosion caused by pipe failure must be repaired immediately following the event	-ve	Low

ALTERNATIVE 2& 3 INVOLVES CONSTRUCTION ACTIVITIES HENCE ALL IMPACTS AND MITIGATION MEASURES WILL BE THE SAME WITH THE PREFERRED ALTERNATIVE.

- Alternative No.2: Erosion protection through earthworks and stone pitching with macmats.
- Alternative No.3: Erosion protection through earthworks and concrete works and reinforcement.

POTENTIAL IMPACTS:	**SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):**	**PROPOSED MITIGATION:**	**SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:**	**RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED**
PLANNING AND DESIGN				
Policy Compliance The proposed development may not be consistent with relevant environmental policy and/or spatial guideline documents, (e.g. close to a watercourse).	-ve	Development must comply with relevant legislation and/or policy, e.g., Municipal By-laws, SDFs, etc.	-ve	Low
Job Creation The project will result in temporary job creation and skills development during the construction and operation phase	+ve	No mitigation	+ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
Inadequate planning for routing of sewer pipeline and erosion protection measures Inappropriate routing of sewer line and erosion protection will lead to sedimentation and erosion of the banks of Jukskei River.	-ve	A stormwater management plan must be drawn up by a qualified engineer and approved by DWS.	-ve	Low
CONSTRUCTION PHASE				
Site clearing affecting soils and Jukskei River. Exposure of soils, leading to increased runoff and erosion, and thus increased sedimentation of the river; • Increased sedimentation	-ve	• Site camp and stockpiles to be established outside of the delineated riparian habitat and the applicable setback zone in consultation with the appropriate authority; • Retain as much indigenous vegetation	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
of the river, leading to smothering of biota and potentially deteriorating surface water quality.		as possible on the riverbanks; • No vehicle servicing or re-fuelling is to take place outside of the freshwater resources and its applicable setback zone; • Areas where bank failure is observed as a result of the construction activities, it should be immediately repaired; • The river, and the applicable setback area should be clearly demarcated with danger tape by an ECO and marked as a no-go area. • Construction should be done during the dry season to avoid flooding risk which will increase contamination and affect construction activities.		

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Soil contamination. • Spillage of chemicals or oil leaks from construction vehicle may result in the contamination of the soil and groundwater. • Storm water runoff may cause erosion of topsoil.	-ve	• Contaminated soil must be treated on site using a spillage kit. • All earthworks must be adequately controlled and managed • Any excavations must be clearly marked and demarcated. • Bare areas must be revegetated as soon as works in that area is completed. • Construction should be done during the dry season to avoid flooding risk which will increase contamination and affect construction activities.	-ve	Low
Noise Noise generated during construction can result in nuisance impact to neighboring property owners and office dwellers.	-ve	• SANS 10103 and the National Noise Control Regulation should be used as the main guidelines for addressing the potential noise impact on this project. • With regard to unavoidable very noisy construction activities in the vicinity of	-ve	Low

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		noise sensitive areas, these should be screened off with acoustic screens, where possible. If no acoustic screening is used during exceptionally noisy construction times, prior warning to community members would be extremely important. • As construction workers operate in a very noisy environment, it must be ensured that their working conditions comply with the requirements of the Occupational Health and Safety act (Act No.85 of 1993) where necessary ear protection gear should be worn.		
Geology and soils – • Loss of soil from excavations due to erosion. • Soil erosion due to	-ve	• Implementation of anti-erosion measures such as temporary river diversion to reduce the water velocity. • Excavation must not be left open for longer than four weeks.	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
ineffective storm water management. It is anticipated that erosion incidences might occur during wet seasons especially on the riverbanks.		• Proper storm water management measures must be put in place.		
Fauna and flora • Construction activities may result in habitat destruction adjacent to the pipeline route and Jukskei River which will impact significantly on the aquatic communities; • Vegetation degradation and alien invasive proliferation	-ve	• Any fauna directly threatened by the construction activities should be removed to a safe location by a suitably qualified person. • The collection, hunting or harvesting of any animals/amphibians at the site should be strictly forbidden. • Vegetation clearing should be kept minimal and only area to be used for construction should be cleared. • Where soil disturbance is required for	-ve	

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on the riverbanks.		the laying of service infrastructure, the topsoil should be put aside and replaced after the infrastructure has been installed. • Areas to be cleared should be demarcated. • Ensure that all activities impacting on the Jukskei River are managed per the relevant DWS Licensing regulations; • Construction should be done during the dry season to avoid flooding risk which will increase contamination and affect construction activities.		
Topography Risk of erosion as areas designated for the construction are within the riverbanks.	-ve	• River diversion will be done, to reduce flow velocity and allow construction to take place minimal contamination of the Jukskei River. • Remove vegetation only on areas	-ve	

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		earmarked for construction. Construction to follow immediately after vegetation clearance. • Avoid placing of stockpiles and other services on areas likely to pose obtrusive visual impact		
Jukskei River: • Altered runoff patterns, leading to increased erosion and sedimentation of freshwater habitat; • Constriction of flow leading to turbulent erosive flow of increased velocity and possible loss of recharge	-ve	• Should it be necessary to clear any areas of vegetation, these areas, including contractor laydown areas, must remain as small as possible, to reduce the risk of further proliferation of alien vegetation, and to retain a level of protection to the river during construction (e.g. sediment trapping, slowing of storm water runoff etc.); • Construction should be done during the dry season to avoid flooding risk which	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
to downstream areas, impacting on downstream biota; • Disturbances of soils leading to increased alien vegetation proliferation, and in turn to further altered freshwater habitat; • Increased turbidity caused by activity within the active channel; • Erosion of the exposed excavations; • Potential impacts on water quality and contamination of soils		will increase contamination and affect construction activities. • All proposed activities will potentially result in bank destabilisation, and reduction in bank incision and sedimentation of the river, therefore, sediment control devices should be installed in place prior to diverting the flow; • Ensure that the creation of the diversion (by means of sandbags) does not result in a significant water level difference upstream or downstream of the site; • The diversion sandbags should be filled with material from the river so as to prevent foreign material to be introduced to the river; • The duration of impacts within the river		

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within the river due to concrete being cast within the active channel; • Potential of backfill material to enter the river, increasing the sediment load of the river; • Altered flow regime as a result of solid wastes within the wetlands; • Altered water quality due to chemical waste disposal**;** • Possible contamination of freshwater soils and surface water, leading to		should be minimised as far as possible by ensuring that the duration of time in which flow alteration and sedimentation will take place is minimised. Therefore, the construction period should be kept as short as possible; and • Restrict construction activities to the drier months wherever possible, so as to limit the possibility of permanent changes to the system. • During trenching, soil removed from the dewatered section should be stockpiled as far as possible from the riparian zone of the river; • Excavated materials (from the trenches) should not be contaminated and it should be ensured that the minimum surface area is taken up, however the stockpiles may not exceed 2m in height. Mixture of		

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reduced ability to support biodiversity		the lower and upper layers of the excavated soil should be kept to a minimum, so as for later usage as backfill material; and • All exposed soils must be protected for the duration of the construction phase with a suitable geotextile (e.g. Geojute or hessian sheeting) in order to prevent erosion and sedimentation of the river.		
Traffic • If vehicles are not maintained, it may lead to contamination and unnecessary noise. • Slow moving vehicles, if utilizing public access routes, could cause congestion at peak	-ve	• Delivery of equipment must be undertaken within the minimum reasonable number of trips. • Planning of site delivery hours must be scheduled to avoid weekends and evenings, as far as possible. •	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
visitor times. • If delivery of equipment and materials are not planned carefully it may lead to a visual and noise impacts				
Waste Generation Waste generation during the construction phase will have a negative impact on the environment, if not controlled adequately. Waste streams likely to include domestic waste, spent grinding material, mixed concrete, construction rubble and other construction waste	-ve	• Care should be taken not to dump waste indiscriminately this could have a negative impact on the ecosystem and may lead to injury to humans and animals. **Construction Rubble:** • All rubble must either be used on site as part of the existing development or must be taken off the site and disposed of at an approved site. • Rubble must not be dumped on the ground but must be placed in a skip bin	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		for regular removal as possible. **Litter management:** • Refuse bins must be placed at strategic positions to ensure that litter does not accumulate within the construction site. These should be kept covered and arrangements made for them to be collected regularly from the site. • A housekeeping team should be appointed to regularly maintain the litter and rubble situation on the construction site. • Waste disposal will need to take place in terms of section 20 of the Environment Conservation Act (Act N0.73 of 1998). • Littering by the employees of the Contractor shall not be allowed under any circumstances. The ECO shall monitor the		

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		neatness of the construction site.		
Disruption of residents' movements through access road. The only feasible access is through number 118 Dennis Road, which is a housing complex.	-ve	• The working area (disturbance corridor) and all exposed trenches must be fenced off with barrier netting, danger tape & droppers. • Warning signage must be erected as appropriate to warn road-users of the presence of construction workers and construction vehicles.	-ve	Low
Air quality • Short-term negative impacts on the air quality will occur from dust and exhaust fumes during construction.	-ve	**Dust control** • Wheel washing and damping down of un-surfaced and un-vegetated areas, taking water saving into account. • Excavations and other clearing activities must only be done during agreed working times and permitting weather conditions to avoid drifting of sand and dust into adjacent areas.	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		• Any complaints or claims emanating from the lack of dust control shall be attended to immediately by the contract and ECO.		
Safety and Security A construction site can act as a magnet to the unemployed, resulting in large numbers of people gathering around the site, thereby posing a security risk in the area.	-ve	• Strict control of personnel accessing the site must be implemented. • No loitering around the site for people seeking temporary employment is to be allowed • Health and Safety Officer to be appointed to continuously monitor the safety conditions during construction. • All construction staff must have the appropriate PPE and name tags or access cards for complex security to easily identify them. • Staff handling chemicals or hazardous materials must be trained in the use of the substances and the environmental,	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		health and safety consequences of incidents. • Record and report any environmental, health and safety incidents to the responsible person. • Signs should be erected to warn of construction activities. • The site and crew are to be managed in strict accordance with the Occupational Health and Safety Act (Act No. 85 of 1993) and the National Building Regulations and Complex Board Corporate Rules. • All structures that are vulnerable to high winds must be secured. • Potentially hazardous areas such as trenches are to be cordoned off and clearly marked at all times.		

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		• The basic spill control kit must be available at each construction camp within the site. • The Contractor is to ensure traffic safety at all times and shall implement road safety precautions for this purpose. • All vehicles and equipment used on site must be operated by appropriately trained and / or licensed individuals in compliance with all safety measures as laid out in the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA). • An environmental awareness training programme for all workers shall be put in place by the Contractor. Before commencing with any work, all workers shall be appropriately briefed about the EMPr and relevant occupational health		

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		and safety issues. • Adequate emergency facilities must be provided for the treatment of any emergency on the site. Emergency procedures must be available on site and communicated to all. • The nearest emergency service provider must be identified, and Emergency contact numbers are to be displayed conspicuously at prominent position.		
Socio economic Employing and training local labour will result in the availability of skilled labour force in the area.	+ve	No mitigation needed	+ve	N/A
Impacts to Cultural/ Historical Resources	-ve	Any artefacts or cultural resources encountered during construction must be preserved and removed with the assistance of a qualified specialist	-ve	Low

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
OPERATIONAL PHASE				
Erosion This is because of poor slope stabilisation and poor rehabilitation/re-vegetation	-ve	• Vegetation should be retained where possible to avoid soil erosion • Re-vegetation of disturbed surfaces should occur immediately after the construction activities are completed to encourage water seepage. • A maintenance plan should be in place to address re-occurrence of riverbank erosion.	-ve	Low
Fauna and Flora The establishment of vegetation after rehabilitation		• Upon completion of construction and rehabilitation the ECO should assess and approve the adequacy of the rehabilitation and ensure that sufficient levels of rehabilitation have been undertaken to allow re-establishment of the necessary vegetation.		

POTENTIAL IMPACTS:	SIGNIFICANCE RATING OF IMPACTS (POSITIVE OR NEGATIVE):	PROPOSED MITIGATION:	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION:	RISK OF THE IMPACT IF MITIGATION NOT BEING IMPLEMENTED
		• Rehabilitation works should be monitored until 80 % of vegetation has established		
Surface Water Contamination Contamination of Jukskei River due to pipeline burst.	-ve	• Regular inspections and maintenance of the pipeline must be undertaken during the operational phase, with any leaks repaired immediately. • Any damage/erosion caused by pipe failure must be repaired immediately following the event	-ve	Low

NO GO OPTION

Potential impacts:	**Significance rating of impacts (positive or negative):**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**	**Risk of the impact** if **mitigation not being implemented**
Geology and soils Erosion of the riverbank threating properties close the banks.	-ve	Construction of erosion control measures	-ve	High
Groundwater and Surface Jukskei River will deteriorate due to continuous pipe bursts and leaks	-ve	Upgrading of the sewer system	-ve	High
Odour Stench odour from leaking sewer	-ve	Upgrading of the sewer system	-ve	High

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

- Freshwater and Aquatic Assessment
- Ecological Study

Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

Assumptions and Limitations of the EAP:

The following assumptions and limitations are applicable to the studies undertaken within this Basic Assessment Process:

- Specialist studies assume that any potential impacts on the environment associated with the Proposed Project, will be avoided or mitigated accordingly within the basic assessment report.
- It is assumed that the pipeline upgrade and erosion protection measures represent the most technically suitable measures to address the current problem.
- This basic assessment report and supporting documentation was compiled under the impression that all information provided by the Applicant to the EAP was correct, accurate and valid at the time it was provided

5.3 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.

No decommissioning phase is envisaged as the pipeline is expected to service existing and future developments in the area.

Proposal

[redacted]

Alternative 1

Alternative 2

[redacted]

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

[redacted]

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

Not applicable to the proposed development

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:

The development will have positive socio-economic cumulative impacts such as the provision of services for future developments in the area.

6 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 (Alternative 1)

Assuming all phases of the project adhere to the conditions stated in the EMPr it has been shown that the impacts associated with the proposed activity will have minimal significant, adverse, long term environmental impact on the environment. Alternatively, all the major negative impacts can be managed to acceptable levels. The operational phase, for both alternatives show positive socio-economic impacts with very low negative environmental impacts. Impacts associated with construction include:

- Economic growth and development.

It must be ensured that the construction phase, in no way, hampers the health of any of the ecological systems or items of heritage significance, and that post-construction rehabilitation leaves the surrounding environments in an as good, if not better, state.

After the construction phase of the project, the contractors must ensure that all hazardous materials are removed from the site and that rehabilitation of land is undertaken according to the requirements of the EMPr. Any alien plant management programmes that are implemented during the construction phase must be maintained during the construction defects liability period.

7 IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The following impacts are expected to occur:

Construction Phase:

- Disturbance of river habitat and fauna;
- Increased erosion within riverbanks;
- Increased sediment movement into the river due to excavations on riverbank;
- Altered river hydrology due to interception/impoundment/diversion of flows;
- Increase in alien vegetation; and
- Deterioration in water quality due to excavations.

Operational Phase:

- Increased flows due to leaks or pipe failure; and
- Possible erosion due to poor workmanship.

For alternative:

[redacted]

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.

From the assessment, the upgrade of the pipeline and erosion control will have positive impacts of high significance as well as negative impacts of low and medium significance. Negative impacts will mainly be on the physical environment during the construction phase. Positive impacts on the social-economic environment include alignment with spatial plans and upgrading of the sewer services which can improve quality of living for people in the area.

The negative impacts, include:

- Disturbance of fauna and flora;
- Disturbance of a watercourse;
- Temporary disturbance of animal habitats during the construction phase.
- Potential erosion on bare areas and during a storm event.
- Air quality impacts.
- Visual impact during the construction phase.
- Noise pollution in the construction phase.

To prevent possible negative impacts, it is recommended that an ECO must compile monitoring/audit reports till the end of construction.

The positive impacts that will benefit them municipality and neighbouring communities are as follows:

- Provision of sewer services to the area.
- Creation of job opportunities in the construction phase.
- Attract economic development as provided for in spatial plans.

From the analysis given and proposed mitigations, the development will have minimal negative impacts and therefore as the proposed development is recommended. It is however recommended that the mitigation measures presented in the Environmental Management Program (EMPr) be fully implemented.

8 SPATIAL DEVELOPMENT TOOLS

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

GIS software was used to create geographical maps. This system was also used in devising mitigation measure to ensure environmentally sustainable measures are considered to prohibit environmental degradation and loss of biodiversity due to human practices.

9 RECOMMENDATION OF THE 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 as bound by professional ethical standards and the code of conduct of EAPASA).

YES [redacted]

If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

[redacted]

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 EMP must be implemented, and an ECO appointed during the construction.
- Recommendations of all specialist studies must be implemented.
- All construction machinery and equipment must be regularly serviced and maintained to keep noise, dust and possible leaks to minimum.
- Construction hours should be limited to normal working hours.
- All waste generated on site during operation must be adequately managed, separation and recycling of different waste materials must be implemented.
- Any leftovers material must be appropriately disposed of (at a permitted landfill site, recycled, used by the community)
- If or when necessary, erosion control measures must be installed during construction
- Local people should be employed where possible and construction workers

should be employed from on-off site location to prevent criminals posing as job seekers on the site.

- Hazardous substance must be appropriately stored in bunded areas and or access-controlled areas on impermeable surface. Emergency numbers should be kept on site in case of spillages
- The site should be fenced and screened where practical and possible. This will prevent uncontrolled access to neighboring properties
- An appropriate temporary traffic control and warning signage must be erected and implemented on the access property.
- A water use license should be applied with the Department of Water and Sanitation
- Ensure that no construction rubble is left in the river after completion of work.
- Assessment from a specialist is required after completion of the construction and must be included in the final ECO report.
- Concrete and cement must not be mixed directly on the ground, or during rainfall events when the potential for transport to the river is the greatest.
- Concrete must only be mixed in a demarcated area, on impermeable substratum.
- Construction machinery must be stored in bunded areas or over oil trays, to avoid soil contamination as a result of an oil spillage.

9. THE NEEDS AND DESIREBILITY OF THE PROPOSED DEVELOPMENT (as per notice 792 of 2012, or the updated version of this guideline)

In terms securing ecological sustainable development and use of natural resources- the activity will result in minimal disturbance to the environment as the alignment will along an existing pipeline. In terms of promoting justifiable economic and social development- the activity will be beneficial future residential developments.

10 THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

(CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)

The Environmental Authorisation is required for 10 years

11 ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

(must include post construction monitoring requirements and when these will be concluded.)

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

12 SECTION F: APPENDIXES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive):

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) – *(must include a scaled layout plan of the proposed activities overlain on the site sensitivities indicating areas to be avoided including buffers)*

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.

APPENDIX A: SITE PLAN(S)

PLAN LAYOUT

APPENDIX B: PHOTOGRAPHS

A housing complex across the river to where the replacement will take place

Jukskei Riverbed.

APPENDIX C: FACILITY ILLUSTRATION

PLAN LAYOUT

COORDINATE LIST		
Lo 29		
Arbol		
MH No.	YLo	XLo
Constant		
MH01	92729.209	2688022.268
MH02	92735.024	2688060.266

PIPE DATA LIST		
MH - MH	Distance	Diam.
Arbol	(m)	(mm)
MH01 - MH02	62.183	250mm uPVC CLASS 34

LONGITUDINAL SECTION LEGEND:

PIPE -

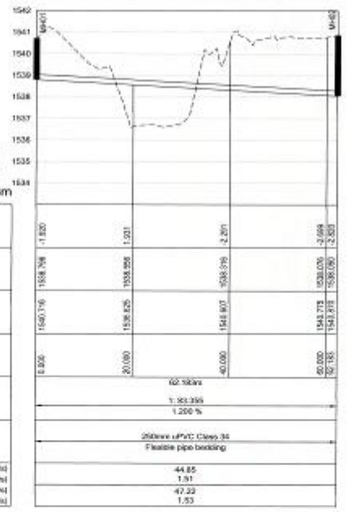
NGL -

SCALES:

Horizontal 1:500

Vertical 1:100

Datum : 1533m



DEPTH TO INVERTS
INVERT LEVEL
GROUND LEVEL
CHAINAGE (m)
PIPE GRADES
PIPE DETAILS
HYDRAULICS (DESIGN: Q (l/s), V (m/s); MAX (0.67D): Q (l/s), V (m/s))

LONGITUDINAL SECTION BETWEEN MH01 - MH02

NOTES

1. ALL PIPES TO BE LAID IN ACCORDANCE WITH SANS 1200 LATEST REVISION AND THE REQUIREMENTS OF JOHANNESBURG WATER SOC LTD.
2. ALL PIPES TO BE LAID USING THE OPEN TRENCH METHOD UNLESS OTHERWISE STATED.
3. CONTRACTOR TO CONFIRM LEVELS OF EXISTING MANHOLES BEFORE COMMENCING CONSTRUCTION.
4. POSITIONS OF ALL EXISTING SERVICES ARE APPROXIMATED AND MUST BE VERIFIED ON SITE.
5. ALL CONSTRUCTION WORK TO BE CARRIED OUT IN STRICT ACCORDANCE WITH JOHANNESBURG WATER STANDARDS.

LEGEND

- NEW 250mm uPVC CI34 SEWER PIPE
- NEW SEWER MANHOLE
- EXISTING SEWER PIPE
- EXISTING SEWER MANHOLE
- SURVEY BENCHMARK

REFER TO DRAWING No:

STANDARD DETAILS

JW100-DET01-S01: MANHOLE DETAIL
JW100-DET02-S01: ERF CONNECTION DETAIL
JW100-DET02-W01: BEDDING DETAIL

LAYOUT AND GABIONS WALL TYPICAL DETAIL

CONSULTING ENGINEERS:
JW - CAPEX
ENGINEERING SERVICES UNIT
SWISS HOUSE
90 MAIN STREET, 7TH FLOOR

DESIGNED: K. NKHALELE DATE: 25/04/2021
SIGNATURE:
DRAWN: K. MHLONGO DATE: 05/05/2021
SIGNATURE:
CHECKED: R. NKHALELE DATE: 25/04/2021
SIGNATURE:
APPROVED: L. KHAWA DATE:
SIGNATURE:
ECSA REG. No 20147201166

Johannesburg Water

17 HARRISON STREET
MARSHALLTOWN

TEL: (011) 688-1400
FAX: (011) 688-1529

Joburg

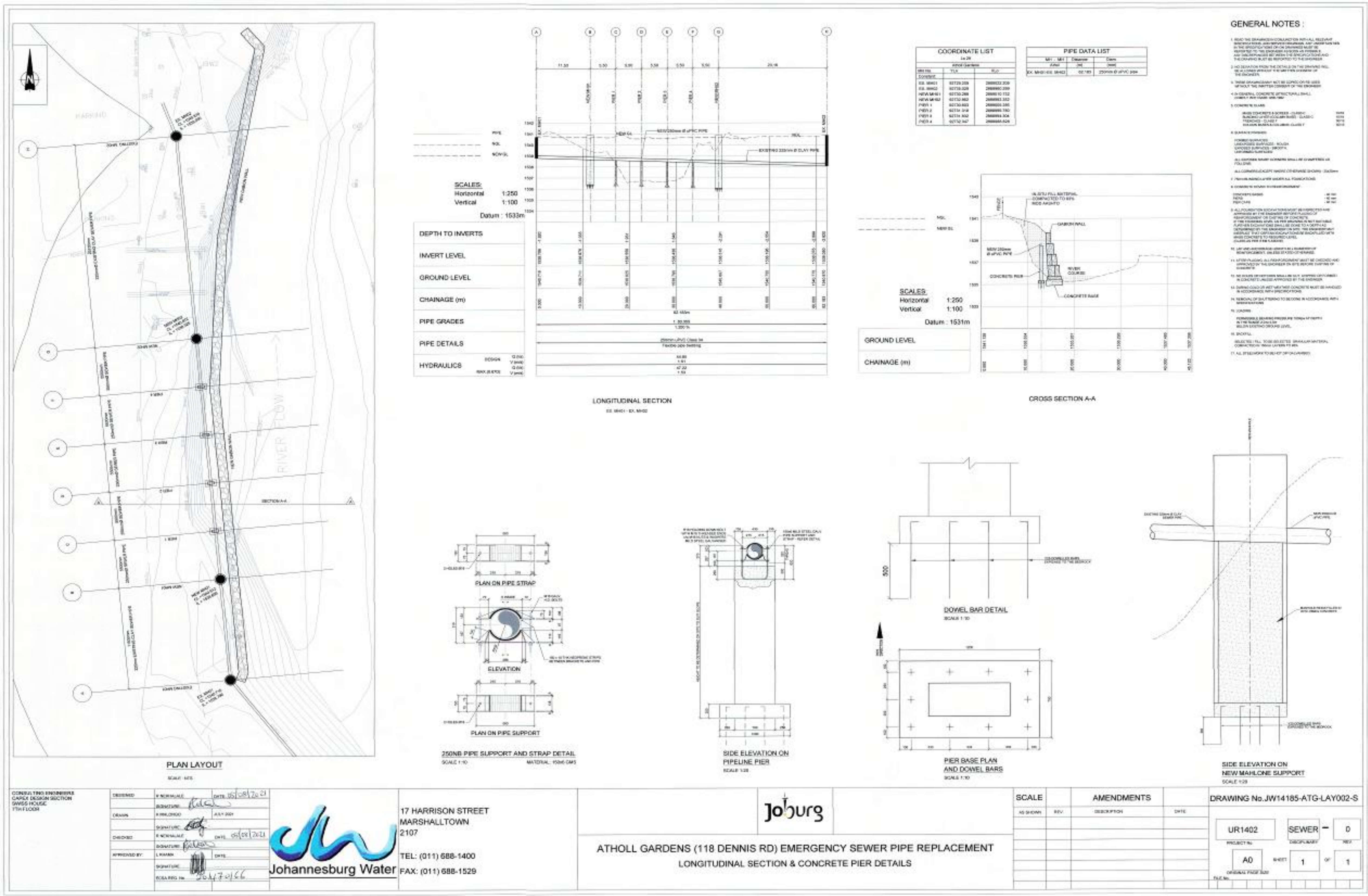
ATHOLL GARDENS (118 DENNIS RD)
EMERGENCY SEWER PIPE REPLACEMENT
PLAN LAYOUT & LONG SECTION

AMENDMENTS			
SCALE	REV.	DESCRIPTION	DATE
1:			

DRAWING No.:JW14185-ATG-LAY003-S

UR1402	SEWER	0
PROJECT No.	DISCIPLINE	REV.
A1	SHEET 1 OF 1	
ORIGINAL PAGE SIZE		

FILE No.:

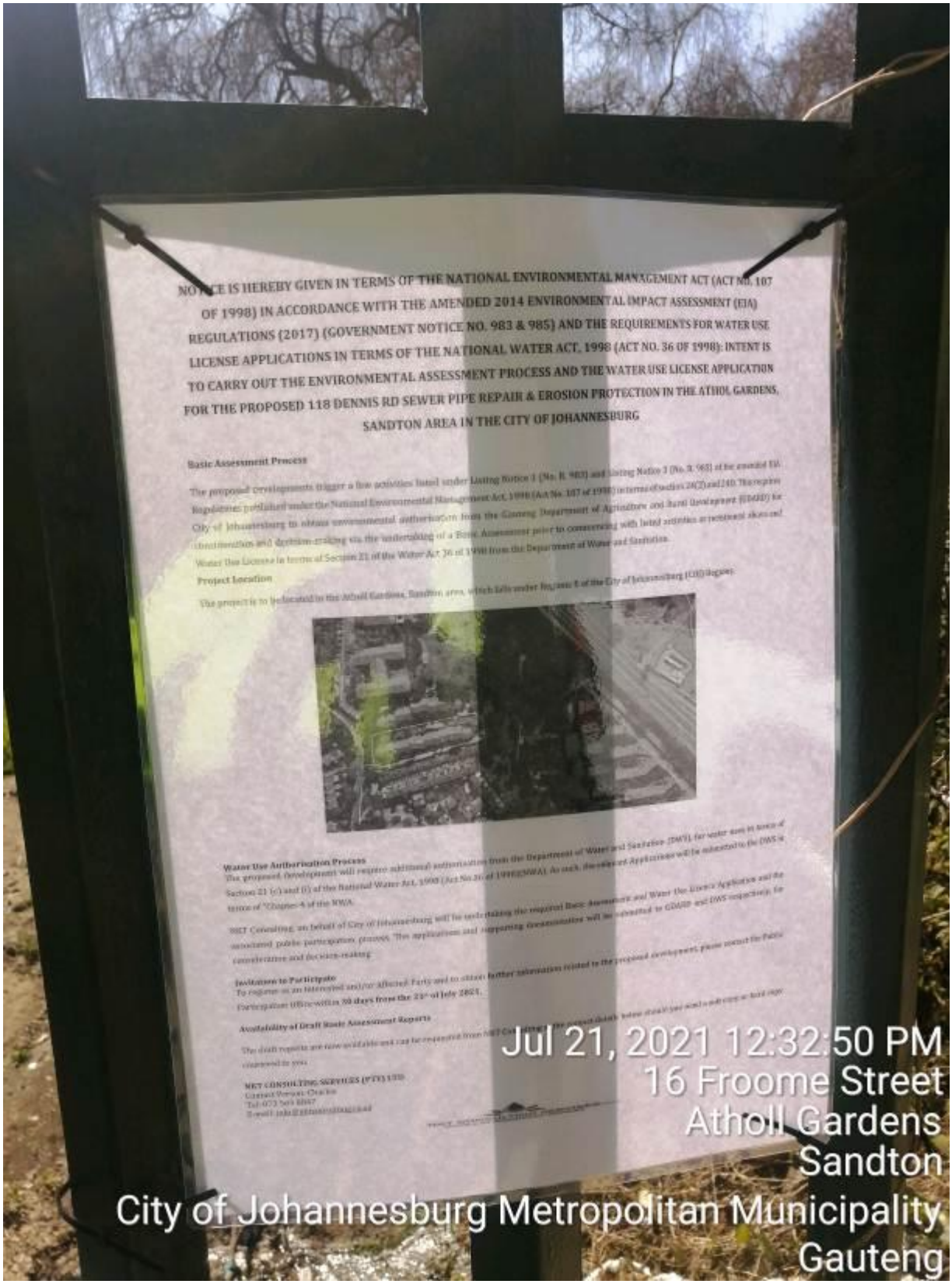

GENERAL NOTES :
COORDINATE LIST
PIPE DATA LIST
SCALES:
Horizontal 1:250
Vertical 1:100
Datum : 1533m
DEPTH TO INVERTS
INVERT LEVEL
GROUND LEVEL
CHAINAGE (m)
PIPE GRADES
PIPE DETAILS
HYDRAULICS
LONGITUDINAL SECTION
SCALES:
Horizontal 1:250
Vertical 1:100
Datum : 1531m
GROUND LEVEL
CHAINAGE (m)
CROSS SECTION A-A
RIVER FLOW
PLAN LAYOUT
PLAN ON PIPE STRAP
ELEVATION
PLAN ON PIPE SUPPORT
250NB PIPE SUPPORT AND STRAP DETAIL
SIDE ELEVATION ON PIPELINE PIER
DOWEL BAR DETAIL
PIER BASE PLAN AND DOWEL BARS
SIDE ELEVATION ON NEW MAHLONE SUPPORT
17 HARRISON STREET
MARSHALLTOWN
2107
TEL: (011) 688-1400
FAX: (011) 688-1529
Johannesburg Water
Joburg
ATHOLL GARDENS (118 DENNIS RD) EMERGENCY SEWER PIPE REPLACEMENT
LONGITUDINAL SECTION & CONCRETE PIER DETAILS
SCALE
AMENDMENTS
DRAWING No.JW14185-ATG-LAY002-S
UR1402
SEWER
D
A0
1
1

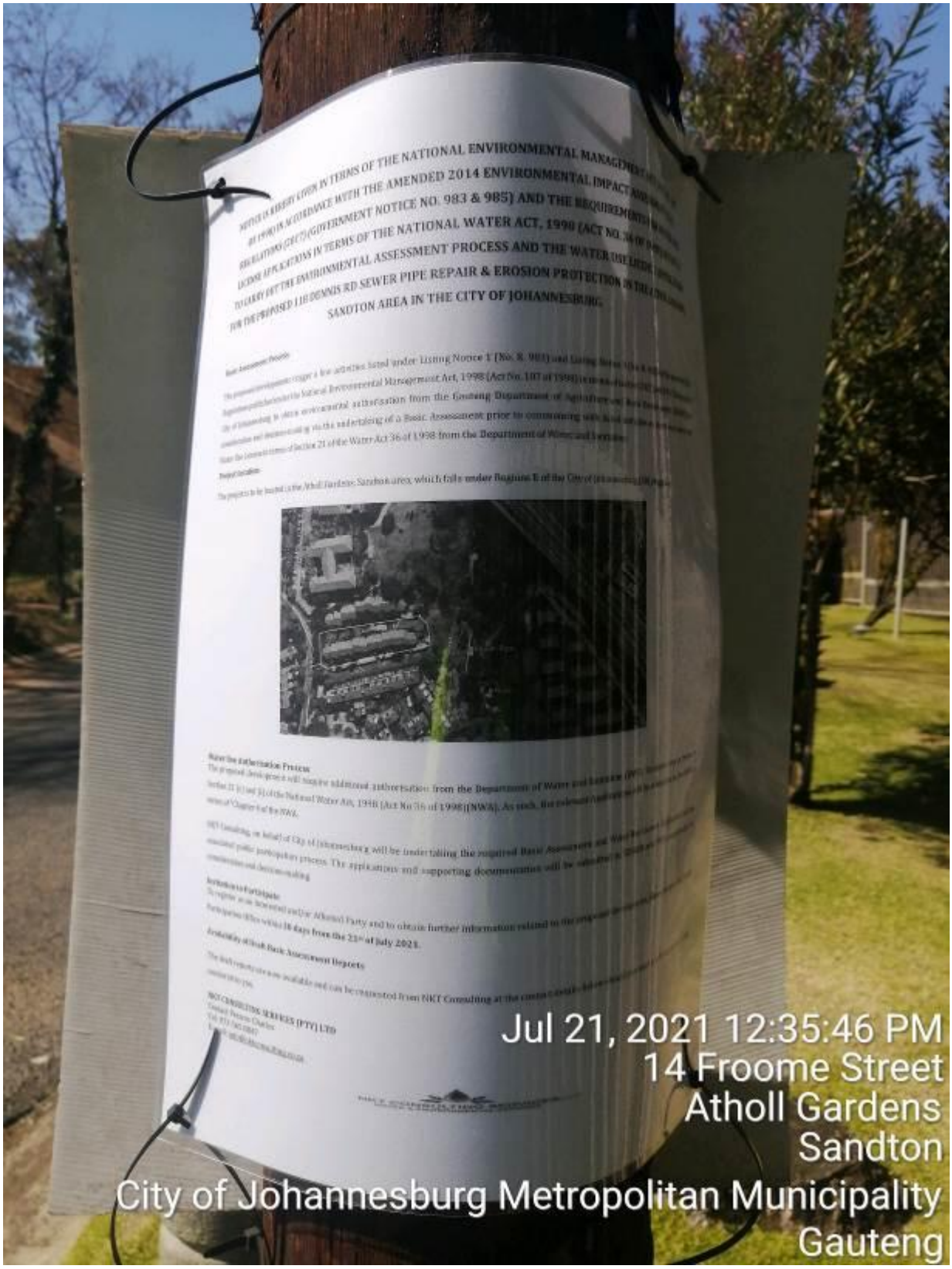
APPENDIX D: ROUTE POSITION INFORMATION


Pipeline Route Information
Write a description for your map.
Legend
Athol Pipeline
Athol Pipeline End Point (26° 6'23.40"S; 28° 4'22.50"E)
Athol Pipeline Mid-Point (26° 6'24.31"S; 28° 4'22.56"E)
Athol Pipeline Start Point (26° 6'25.30"S; 28° 4'22.80"E)
Access Point to Site
Dennis Rd
Grayston Dr
M40
Google Earth
© 2021 Google
© 2021 AfriGIS (Pty) Ltd.
Image © 2021 Maxar Technologies
N
100 m

APPENDIX E : PUBLIC PARTICIPATION INFORMATION

APPENDIX E1: PROOF OF SITE NOTICE


NOTICE IS HEREBY GIVEN IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) IN ACCORDANCE WITH THE AMENDED 2014 ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS (2017) (GOVERNMENT NOTICE NO. 983 & 985) AND THE REQUIREMENTS FOR WATER USE LICENSE APPLICATIONS IN TERMS OF THE NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998): INTENT IS TO CARRY OUT THE ENVIRONMENTAL ASSESSMENT PROCESS AND THE WATER USE LICENSE APPLICATION FOR THE PROPOSED 118 DENNIS RD SEWER PIPE REPAIR & EROSION PROTECTION IN THE ATHOL GARDENS, SANDTON AREA IN THE CITY OF JOHANNESBURG
Basic Assessment Process
Project Location
Water Use Authorisation Process
Jul 21, 2021 12:32:50 PM
16 Froome Street
Atholl Gardens
Sandton
City of Johannesburg Metropolitan Municipality
Gauteng


SANDTON AREA IN THE CITY OF JOHANNESBURG.
Jul 21, 2021 12:35:46 PM
14 Froome Street
Atholl Gardens
Sandton
City of Johannesburg Metropolitan Municipality
Gauteng

APPENDIX E2: BACKGROUND INFORMATION DOCUMENT

BACKGROUND INFORMATION DOCUMENT FOR THE BASIC ENVIRONMENTAL IMPACT ASSESSMENT FOR 118 DENNIS ROAD SEWER PIPE REPAIR & EROSION CONTROL, IN ATHOLL GARDENS, CITY OF JOHANNESBURG

1. INTRODUCTION

NKT Consulting was appointed by Lilithalethu Trading 41, on behalf of Johannesburg Water to undertake a thorough environmental investigation on 118 Dennis Road sewer pipe repair & erosion control, in Atholl Gardens, City of Johannesburg.

2. PURPOSE OF DOCUMENT

The purpose of this Background Information Document (BID) is to provide a brief description of the project and EIA process that will be followed, and to obtain initial comments and contributions from Interested and Affected Parties (I&APs) on the issues relating to the proposed development.

3. PROJECT LOCATION

The project is to be located in the Atholl Gardens, Sandton area, which falls under Regions E of the City of Johannesburg (COJ) Regions.

Position	Latitude	Longitude
Start of Bulk line	26°06'25.3"	28°04'22.8"
End of Bulk line	26°33'8.91"	27°49'38.61"

4. ACTIVITY DESCRIPTION

The scope includes pipe repair of approximate 75m long pipe from manhole to manhole and installation of approximately 85m of erosion protection using combination gabions and rip rap by conventional open trench method for normal ground works and by open trench mainly. The scope of work will also incorporate at least the following activities:

Pipe repair

- Installation of a new 250mm uPVC sewer pipe approximately 75m long from manhole to manhole

Erosion protection of the following:

- Rip rap
- Gabion boxes
- Gabion reno mattresses
- Earthworks excavation and compaction

The existing clay sewer pipe has washed away by the river/ flooding due to riverbank being also scoured and the pipe is currently disconnected and discharging effluent to the river

5. LEGAL REQUIREMENTS

Environmental Management Act (Act 108 of 1998)

The EIA Regulations, 2014 (as amended) promulgated in terms of Chapter 5 of NE-MA, provides for the control of certain listed activities. Such activities are prohibited from commencing until written authorisation is obtained from the competent authority,.

The proposed project triggers the following listed activities in Government Notices No. R983 (Listing Notice 1) as amended in 2017:

Indicate the number of the relevant Government Notice:	**Activity No (s) (relevant notice): e.g. Listing notices 1, 2 or 3**	**Describe each listed activity as per the wording in the listing notices:**
e.g. GN. R 983, 8 December 2014	1.(i)	the development of facilities or infrastructure for the generation of electricity from a renewable resource where – the electricity output is more than 10 megawatts but less than 20 megawatts
LISTING NOTICE 1		
GNR 983, 8 December 2014	19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse; but excluding where such infilling, depositing, dredging, excavation, removal or moving— (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies
LISTING NOTICE 3		
GNR 985, 8 December	14	The development of— (ii) Infrastructure or structures with a physical footprint of 100 square metres

2014		or more; where such development occurs— a) Within a watercourse; b) In front of a development setback; or c) If no development setback has been adopted, within 32 **Gauteng** iv. Sites identified as Critical Biodiversity Areas (CBAS) or Ecological Support Areas (ESAS) in the Gauteng Conservation Plan or in bioregional plans

National Water Act (Act 36 of 1998)

The application will require authorisation in terms of section 21 [c] and [i] of the Water Act:

- Section 21 (c): Impeding or diverting the flow of water in a watercourse
- Section 21(i): Altering the bed, banks, course or characteristics of a watercourse.

6. BASIC ASSESSMENT PROCESS

Thus, a Basic Assessment process must be undertaken in order to apply for Environmental Authorisation. In addition, a Water Use Licence (WUL) in terms of the National Water Act, 1998 (No. 36 of 1998) may also be required. The need for a WUL will be determined as part of the Basic Assessment process.

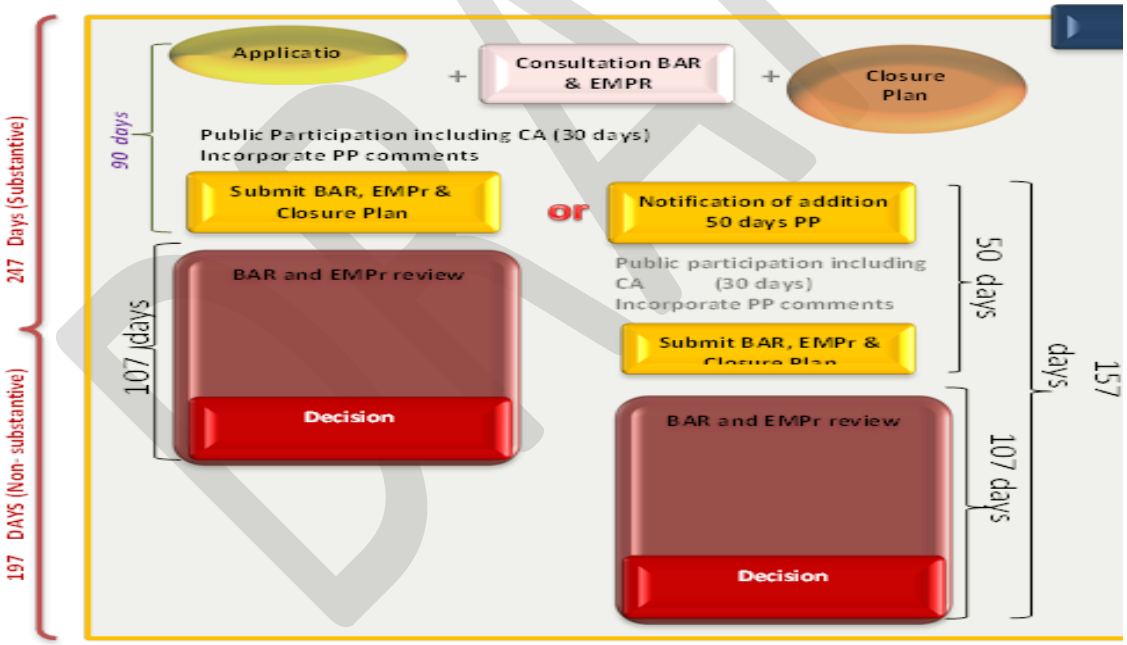


Figure 1: Basic assessment process

7. KEY ISSUES FOR CONSIDERATION

A number of key issues associated with the proposed project have to date been identified for consideration in the Basic Assessment process. These include:

a) The potential impact of the proposed project and proposed alternatives on the surface water quality and natural vegetation
b) Potential impacts on freshwater aquatic
c) Sedimentation

8. AVAILABILITY OF THE DRAFT BASIC ASSESSMENT REPORT

The draft report will be compiled and will be made available for public review. The report will contain information regarding potential impacts that the development will have on the natural environment. The draft report will be made available at the local libraries and the public will be required to comment within 30 days of the public participation period.

9. YOUR COMMENTS AND REGISTRATION AS AN I&AP ARE IMPORTANT

You are invited to participate freely and to submit any comments or information you feel may be useful to this BA process. Registered I&APs are entitled to comment, in writing, on all written submissions to NKT Consulting and to bring to their attention any issues which the party believes may be of significance to the consideration of the application. You have to register as an I&AP to receive further details of public review of reports produced as part of the BA process. To register as an I&AP please complete the attached comment sheet/ registration sheet.

Registered I&APs will be informed about availability of reports and scheduled stakeholder meetings by means of their preferred means of communication (email, post or fax). Contributions from stakeholders will assist in informed decision-making for authorities and provides information to be considered by the project team and specialists conducting studies. All comments can be submitted using the contact details which appear on the

cover page or as part of the Comment and Registration Sheet. Contact person and details are below:

Contact Person: Charles

Tel: 073 565 8847

E-mail: info@nktconsulting.co.za

APPENDIX E3: PROOF OF NEWSPAPER ADVERTISEMENTS

the N18 (Vryburg - Taung) road for the purposes of a solar plant, consisting of photovoltaic panels with subservient and related uses. Particulars of the application will lie for inspection during normal office hours at the office of the Municipal Manager, Naledi Local Municipality, 19a Market Street, Vryburg. Objections to or representations in respect of the application must be lodged with or made to the Municipal Manager at the above address or posted to P.O. Box 35, Vryburg, 8600, within a period of 30 days from 27 July 2021. Add. of Agent: Joze Malelu P.O. Box 1372, 95 Leask Street, Klerksdorp, 2570 Contact No.:018 462 1991 info@jmland.co.za

CA00245

Tlhabane Unit 3 ERF 3182
NOTICE IN TERMS OF SECTION 17(1) OF THE RUSTENBURG LOCAL MUNICIPALITY SPATIAL PLANNING AND LAND USE MANAGEMENT BY- LAW 2018 FOR A CHANGE OF LAND USE RIGHTS, KNOWN AS A REZONING RUSTENBURG AMENDMENT SCHEME 2153 I, Esther Mpho Mmamadi (ID No: 800207 034 085) of the firm Phure Trading and Consulting CC (Reg. No 2005/140430/23) being the agent of the owner of Erf 3182 Tlhabane Unit 3 Township North West Province hereby gives notice in terms of Section 17(1)(d) of the Rustenburg Local Municipality Spatial Planning and Land Use Management By-Law, 2018 that I have applied to the Rustenburg Local Municipality for a change of land use rights also known as Rezoning with the following proposals: A) The Rezoning of the property described above, situated at 3182 Motsatsi Street, Tlhabane Unit 3 Township from 'Residential 1' to 'Residential 2' including Residential Buildings. B) All properties situated adjacent to Erf 3182 Tlhabane Unit 3 Township North West Province, could be affected by the Rezoning application. C) The Rezoning entails that the proposed structures to be built on the property, will be used for 'Residential 2' including Residential Buildings, with maximum height of two storeys, maximum coverage 65% and a maximum Floor Area Ratio (F.A.R) of ... Particulars of the application will lie for inspection during normal office hours at the office of the Director Planning and Development, Room 31... Missionary Mpheni House, ... Beyers Naude and Nelson Mandela Drive, Rustenburg for the period of 28 days from 2... July 2021. Objections to ... representations in respect ... the application must be lodged with or made in writing to the Municipal Manager at ... above address or at P.O B... 16, Rustenburg, 0300, within ... period of 28 days from 27 J... 2021. Address of applica... Phure Consulting, 32 Nels... Mandela Drive, Frane V... Building, Office No.9, 1st Fl... Rustenburg. Tel: 014 ... 9408.

NNO...

78 AMENDMENT SCHEMES

NATIONAL WATER ACT
NOTICE IS HEREBY GIVEN IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) IN ACCORDANCE WITH THE AMENDED 2014 ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS (2017) (GOVERNMENT NOTICE NO. 983 & 985) AND THE REQUIREMENTS FOR WATER USE LICENSE APPLICATIONS IN TERMS OF THE NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998): INTENT IS TO CARRY OUT THE ENVIRONMENTAL ASSESSMENT PROCESS AND THE WATER USE LICENSE APPLICATION FOR THE PROPOSED 118 DENNIS RD SEWER PIPE REPAIR & EROSION PROTECTION IN THE ATHOLL GARDENS, SANDTON AREA IN THE CITY OF JOHANNESBURG Basic Assessment Process The proposed developments trigger a number of activities listed under Listing Notice 1 (No. R. 983) and Listing Notice 3 (No. R. 985) of the amended EIA Regulations published under the National Environmental Management Act, 1998 (Act No. 107 of 1998) in terms of section 24(2) and 24D. This requires City of Johannesburg to obtain environmental authorisation from the Gauteng Department of Agriculture and Rural Development (GDARD) for consideration and decision-making via the undertaking of a Basic Assessment prior to commencing with listed activities as mentioned above and Water Use License in terms of Section 21 of the Water Act 36 of 1998 from the Department of Water and Sanitation. Project Location The project is to be located in the Atholl Gardens, Sandton area, which falls under Regions E of the City of Johannesburg (COJ) Regions. Water Use Authorisation Process The proposed development will require additional authorisation from the Department of Water and Sanitation (DWS), for water uses in terms of Section 21 (c) and (i) of the National Water Act, 1998 (Act No 36 of 1998) (NWA). As such, the relevant Applications will be submitted to the DWS in terms of Chapter 4 of the NWA. NKT Consulting, on behalf of Johannesburg Water SOC Ltd will be undertaking the required Basic Assessment and Water Use Licence Application and the associated public participation process. The applications and supporting documentation will be submitted to GDARD and DWS respectively, for consideration and decision- making Invitation to Participate To register as an Interested and/or Affected Party and to obtain further information related to the proposed development, please contact the Public Participation Office within 30 days from the date of publication of this site notice. Availability of Draft Basic Assessment Reports The draft reports are now available and can be requested from NKT Consulting at the contact details below should you need a soft copy or hard copy couriered to you. NKT CONSULTING SERVICES (PTY) LTD Contact Person Charles Tel: 073 565 8842 E-mail: info@nktconsulting.co.za.

NN0069...

Boitekong Erf 1203 Extension 1
NOTICE OF APPLICATION FOR AMENDMENT SCHEME IN TERMS OF SECTION 17 (1) OF THE RUSTENBURG SPATIAL PLANNING AND LAND USE MANAGEMENT BY LAW 2018 RUSTENBURG AMENDMENT SCHEME 2160
NOTICE OF APPLICATION FOR AMENDMENT SCHEME IN TERMS OF SECTION 17(1) OF THE RUSTENBURG SPATIAL PLANNING AND LAND USE MANAGEMENT BY LAW 2018 RUSTENBURG AMENDMENT SCHEME 2160 I Mr Andrew Mosime as the owner properties Erven 1198,1199 and 1203 Extension 1 Boitekong Rustenburg Registration Division J.Q North West Province hereby give notice in terms of Section 17(1)(d) of the Rustenburg Spatial Planning and Land Use Management By Law 2018, that I have applied to the Rustenburg Local Municipality for the amendment of the Town Planning Scheme known as the Rustenburg Land Use Management Scheme 2005 by way of Consolidating and Rezoning Erven 1198 and 1199 and tying (Notarial tie) Erf 1203 Extension 1 Boitekong to be proposed from 'Residential ' to' Special for Residential Building and Parking purposes as defined in Annexure 2445 to the Scheme. This application contains the following proposals: A. The properties Erven 1198 and 1199 are consolidated in (total) and shall be used entirely for Residential Building and a notarial tie of Erf 1203 to the consolidated shall be used for parking purposes. B. The adjacent properties and others in the area will be affected. The proposed rezoning has the following development parameters: Property sizes: Erf 1198 is 247m, Erf 1199 is 282m (Consolidated size 554 m), Erf 1203 is 307m (Notarial Tie), Maximum Height: 2 Storeys, Maximum Coverage 50%Maximum FAR 1. 0 Particulars of the application will lie for inspection during normal working hours at the office of the Municipal Manager Room 319 Missionary Mpheni House, Cnr of Nelson Mandela and Beyers Naude Streets Rustenburg for a period of 28 days from 20 July 2021.Objections to or representations in respect of the application must be lodged with or made in writing to the Municipal Manager at the abovementioned address or at P.O. BOX 16 Rustenburg 0300 and or andrew.mosime@lonmin.com. Contact address: No. 10 Korokoro Street Waterfall East Rustenburg. Contact number 0721740454/0605323721 within 28 days from the specified date. The notice will be placed on the Subject property for a period of 28 days from the date of the first publication on the Provincial Gazette, Beeld and Citizen newspapers. Publication dates: 20 and 27 July 2021.

KP061848

Rustenburg, Portion 5 of Erf 908.
NOTICE IN TERMS OF SECTION 17(1) OF THE RUSTENBURG LOCAL MUNICIPALITY SPATIAL PLANNING AND LAND USE MANAGEMENT BY-LAW, 2018 FOR A CHANGE OF LAND USE RIGHTS KNOWN AS A REZONING. RUSTENBURG AMENDMENT SCHEME 3001
The firm NE Town Planning CC (Reg. Nr. 2008/249644/23), being the authorised agent of the owner of Portion 5 of Erf 908, Rustenburg, Registration Division J.Q., North West Province hereby give notice in terms of Section 17(1)(d) of the Rustenburg Local Municipality Spatial Planning and Land Use Management By-Law, 2018 that we have applied to the Rustenburg Local Municipality for a change of land use rights also known as rezoning of the property described above, situated at 41 Molen Street from 'Residential 2' to 'Special' for Dwelling Units, Offices and Vehicle Sales Lot as defined in Annexure 3001 to the Scheme. This application contains the following proposals: A) That the property will still be used for the purposes as mentioned above. B) The adjacent properties as well as properties in the area could thereby be affected. C) The rezoning from "Residential 2" to 'Special' for Dwelling Units, Offices and Vehicle Sales Lot entail that the existing buildings, as well as new structures, will be utilised for the purpose as mentioned above, and the relaxation of building lines on three boundaries of the property, with the following development parameters: Max Height: 2 Storeys, Max Coverage: 65%, Max F.A.R: 0.70. Any objection or comments, with the grounds therefore and contact details shall be lodged within a period of 28 days from the first date on which the notice appeared, with or made in writing to: Municipality at: Room 319, Missionary Mpheni House, cnr. Nelson Mandela and Beyers Naude Drives, Rustenburg, or to PO Box 16, Rustenburg 0300. Full particulars and plans (if any) may be inspected during normal office hours at the above-mentioned offices, for a period of 28 days from the date of first publication of the advertisement in the Provincial Gazette, Beeld and Citizen and /or Site Notice. Closing date for any objections: 31 August 2021. Address of applicant:NE Town Planning CC, 155 Kock Street, Suite 204, De Dak, Rustenburg 0299, or P.O. Box 21139, Protea Park, 0305; Telephone No: 014 592 2777. Dates on which notice will be published: 27 July and 3 August 2021.

NW021028

Erf 1101, Ikageleng Extension 1 Township
NOTICE IS HEREBY GIVEN IN TERMS OF SECTION 98(1)(B) OF RAMOTSHERE MOILOA LOCAL MUNICIPALITY SPATIAL PLANNING AND LAND USE MANAGEMENT BY-LAW, 2017 TO ADJECENT OWNERS AND AFFECTED PARTIES, RELATING TO A LAND DEVELOPMENT APPLICATION IN RESPECT OF ERF 1101, IKAGELENG EXTENSION 1 TOWNSHIP, REGISTRATION DIVISION J.P. NORTH WEST PROVINCE I, Nthabiseng Lucia Ikaneng, ID No. 880908 0932 086 in my capacity as registered Technical Planner (B /8416/2019), being the authorized agent of the owner of Erf 1101, Ikageleng Extension 1 Township, Registration Division J.P. North West Province (commonly known as No. 1101 Mogologang Street), hereby give notice for a Land Development Application made in terms of Section 57(d) and 66(1) of Ramotshere Moiloa Local Municipality Spatial Planning and land Use Management By-law, 2017 read together with Section 28(1) and all relevant sections of the Spatial Planning and land Use Management Act, 2013 (Act 16 of 2013) and Section 56 of the Town Planning and Township Ordinance, 1986 (Ordinance 15 of 1986) and/or such other legislation, policy or by-law that may be applicable for the amendment of the Ramotshere Moiloa Land Use Scheme, 2017, for a change in the land use rights (also referred to as the rezoning), that I have applied to Ramotshere Moiloa Local Municipality, the Municipal Planning Tribunal of the Ramotshere Moiloa Local Municipality or any other relevant and competent authority. The intention of the owner is to rezone the property from 'Residential 1' to 'Residential 3' as per the Land Use Scheme for Ramotshere Moiloa Local Municipality (herein after 'the application'). Any objection or comment including the grounds pertaining thereto must be lodged in writing or verbally if unable to write within a period of 30 days from the date of first publication, to the Municipal Manager at Cnr. President & Coetzee Street, Zeerust or post to P.O. Box 92, Zeerust, 2865 or contact Mr Olebogeng Gaseelatwe at 018 642 1081 (Ext. 248/303/310) during normal office hours at Ramotshere Moiloa Local Municipality. Full particulars of the application can be accessed at Ramotshere Moiloa Local Municipality. Closing date for any objections or comments: 18 August 2021. Address of the applicant Mrs Nthabiseng Lucia Ikaneng is at 5824 Tsimatlhone Close, Unit 14, Mmabatho, 2735, Telephone number: 078 218 8950, or email nthabiseng.mabine@gmail.com. Dates on which the notice will be published: 20 July 2021 and 27 July 2021.

KP051902

MAXIM

Farm Roodekopjes of Zwartkopjes No 327,Erven 239, 240, 241, 242, 243 and 244 & Portion 984
NOTICE IN TERMS OF CLAUSE 56, CLAUSE 65 AND CLAUSE 66 OF THE MADIBENG LOCAL SPATIAL PLANNING AND LAND USE MANAGEMENT BY-LAW, 2016 FOR A CHANGE OF THE LAND USE RIGHTS AND A SUBSEQUENT CONSOLIDATION, AS PER BRITS TOWN PLANNING SCHEME- AMENDMENT SCHEME NO. 1/745
Maxim Planning Solutions (Pty) Ltd (2002/017393/07) being the authorized agent of the owner of Erven 239, 240, 241, 242, 243 and 244, Brits Registration Division J.Q., Province of the North-West and Portion 984 of the farm Roodekopjes of Zwartkopjes No 327, Registration Division J.Q., Province of the North-West, ...

Erven 239, 240, ... and 244, Brits ... consolidated erf ... Residential to ... Then the agent ... will apply for a ... consolidated erf ... 984 of the farm ... Zwartkopjes No ... properties are ... Reitz Street, ... jurisdiction of M... Municipality ... known as Orbit ... with a max... restriction of two ... maximum FAR ... maximum cove... Particulars of t... will be open ... during normal ... the office of ... Planning and ... Madibeng Loca... 2nd Floor, Civ... Velden Street, ... period of 30 da... 2021. Object... representations ... the application ... with or made i... Municipal Man... above address ... 106, Brits, ... Velden Street, ... period of 30 da... 2021. Address ... agent: Maxi... Solutions (Pty ... /017393/07), ... 67 Brink Stree... PO Box 211... 0305, Tel: (014 ... /1848-R-L)

Rustenburg, Po... 942,
NOTICE IN TE... SECTION 17(1)... RUSTENBURG... MUNICIPALITY... PLANNING AN... MANAGEMENT... FOR A CHANG... USE RIGHTS K... REZONING. R... AMENDMENT...
Jan-Nolte Ekk... NE Town Plan... the authorised ... owner of Porti... Rustenburg, ... Division J.Q., ... Province hereb... terms of Sectio... Rustenburg Lo... Spatial Plannin... Management ... that we have ... Rustenburg Lo... for a change o... also known as ... property de... situated at 83 ... Rustenburg fr... 1' to 'Business ... Annexure 300... This applicati... following prop... property may ... land uses ... • Business 1' ... adjacent prop... others in th... possibly be ... rezoning. C) T... "Residential 1"... entails that a... be built and u... purposes: ... contains ... development ... Height: 2 ... Coverage: ... F.A.R: 0.20. ... comments, w... therefore and ... shall be lodge... of 28 days fr... on which the ... with or mad... Municipality ... Missionary Mp... Nelson Mand... Naude Drives ... to PO Box ... 0300. Full par... (if any) ma... during norma... the above- m... for a period o... date of first p... advertisemen... Gazette, Beel... /or Site Notic... any objectio... 2021. Addres... Town Plann...

TENDER NOTICE

Johannesburg Water (SOC) Ltd invites responses from interested parties for the following:

Tender No.	Description	Closing date	Enquiries
JW 005/20 MCS R	Appointment of a service provider to conduct capacity building for community liaison officers across the City of Johannesburg on as and when required basis for 36 months	03 August 2021 at 10:30 extended to 06 August 2021 at 10:30	All enquiries must be directed to Clarence Nkoana on 011 688 581 or Clarence.nkoana@jwater.co.za using the tender number as reference. All technical enquiries must be directed to Avuyile Mcambi at 011 688 1580 or Avuyile.mcambi@jwater.co.za

APPENDIX E4: COMMUNICATIONS TO AND FROM INTERESTED AND AFFECTED PARTIES

Will be updated in the final report

APPENDIX E5: MINUTES OF ANY PUBLIC AND/OR STAKEHOLDER MEETINGS

None was held due to Covid 19

APPENDIX E6: COMMENTS AND RESPONSE REPORT

No comments received yet

APPENDIX E7: COMMENTS FROM I&APS ON BASIC ASSESSMENT (BA) REPORT

None

APPENDIX E8: COMMENTS FROM I&APS ON AMENDMENTS TO THE BA REPORT

None

APPENDIX E9: COPY OF THE REGISTER OF I&APS

APPENDIX F: WATER USE LICENSE

APPENDIX G: SPECIALIST STUDIES

APPENDIX G1: ECOLOGICAL STUDIES

APPENDIX G2: FRESHWATER AND AQUATIC STUDY

APPENDIX H: EMPR

APPENDIX I: DETAILS OF THE EAP&EXPERTISE