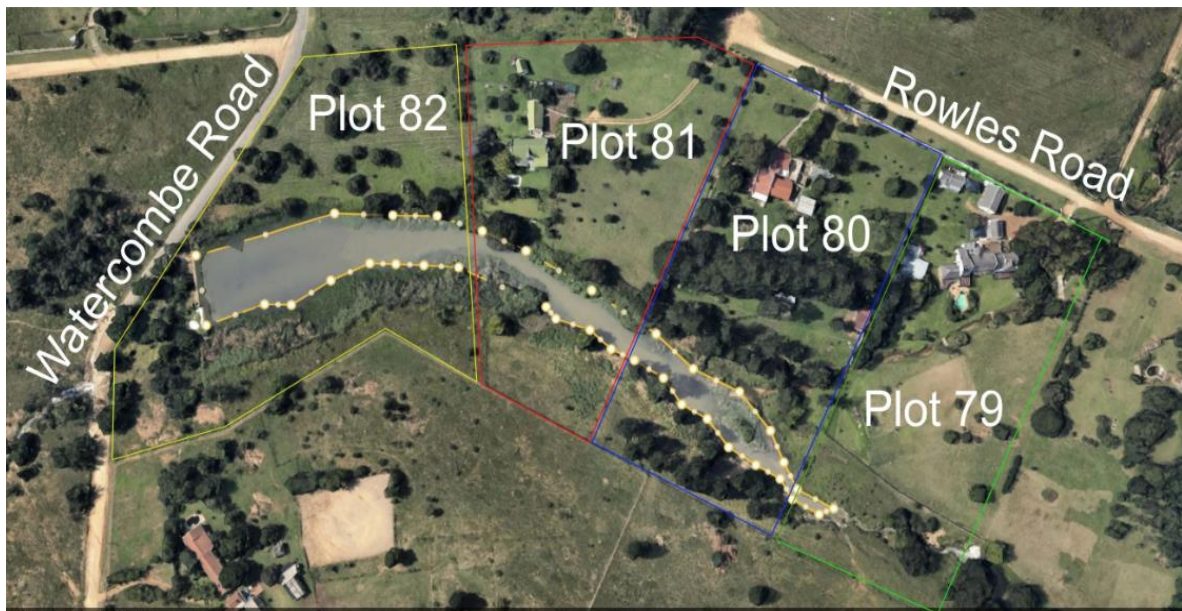


BASIC ENVIRONMENTAL ASSESSMENT FOR DESILTING AND REHABILITATION OF WATERCOMBE DAM IN THE CITY OF JOHANNESBURG, REGION C

REFERENCE NUMBER: GAUT 002/22-23/E3299



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Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1/2022)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This template is current as of April 2022. It is the responsibility of the EAP to ascertain whether subsequent versions of the template 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 must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority (uploaded to the EIA online system) empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application. The EIA online system can be accessed at <https://eia.gauteng.gov.za>.**
5. **A copy (PDF) of the final report and attachments must be uploaded to the EIA online system. The EIA online system can be accessed at <https://eia.gauteng.gov.za>.**
6. **Draft and final reports submitted in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) must be emailed to environmentsue@gauteng.gov.za.**
7. 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.
8. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
9. An incomplete report may lead to an application for environmental authorisation or Waste Management License being refused.
10. 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 authorization or Waste Management License being refused.

11. 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 or Waste Management License being refused.
 12. The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 10 days of receipt of the application.
 13. 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.
 14. 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 Sustainable Utilisation of the Environment (SUE) Branch

P.O. Box 8769

Johannesburg

2000

Ground floor, Umnotho House, 56 Eloff Street, Johannesburg

Administrative Unit telephone number: (011) 240 3051/3052

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?

Not Applicable

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

Project is for dam rehabilitation.

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?

Not Yet

If no, why?

Report is still a draft

--

1 SECTION A: ACTIVITY INFORMATION

1.1 Proposal Or Development Description

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

Basic Environmental Assessment for Desilting and Rehabilitation of Watercombe Dam

Select the appropriate box

The application is for an upgrade of an existing development

The application is for a new development

Other, specify

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

YES	<input type="checkbox"/>
-----	--------------------------

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

The project requires a water use license based on the Water Act , 1998. The following sub-sections of Section 21 are applicable:
(c) impeding or diverting the flow of water in a watercourse:
(d) engaging in a stream flow reduction activity contemplated in section 36;
(i) altering the bed, banks. course or characteristics of a watercourse

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

YES	<input type="checkbox"/>
<input type="checkbox"/>	NO

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

1.2 Proposal Or Development Description

The scope of work for this project is to remove the sand and sludge materials accumulated in the dam. The existing dam is approximately 378.22m long. The appointed contractor shall be responsible for the overall work and not limited to:

- Management of material (supply, offloading, storing)
- Resource management (people and plant)
- Clearing of the site;
- Traffic Accommodation;
- Excavation works
- Reinstatement and rehabilitation of the watercourse embankments.

All works shall comply with permits requirements and according to the specifications and the contractor should ensure that the completed works satisfy the expectations of JW, community and authorities.

Approximately 9,000 cubic meters of material will be removed. As part of its duty of care, Johannesburg Water would like to undertake the remediation process and remove all contaminated materials from the dam in order to restore the dam close to its original state and to improve the capacity, health and welfare of the dam. The is covers approximately 378.22m of the area and it is situated in Region C of the City of Johannesburg within the following portions: 79, 80, 81, and 82 of Farmall and the coordinates are as follows: Latitude: 26° 0'15.03"S Longitude 27°57'17.70"

Desilting of the dam

- The river will be diverted from portion 79 through to portion 82 in order for the work to be undertaken.
- All materials that are within the dam will be removed and stored temporarily on portion 81 and 82 for reuse, and should there be excess material remaining on site, the materials will be disposed of at the registered landfill site.
- The test will be taken before disposal of all soil materials in order to ascertain if they will be disposed of as general or hazardous waste.
- The excavator will dig 2-3m deep near the dam wall within portion 82, one and half metres deep on portion 81 and 1m deep at portion 79 in order to restore the dam capacity.
- The sand that will be removed from the dam will be used for surfacing of roads in the neighbourhood.

1.3 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:

1.3.1 Description Of Compliance With The Relevant Legislation, Policy Or Guideline:

Legislation, policy of guideline	Description of compliance
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	<p>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.</p> <p>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</p>
National Water Act, 1998 (Act No. 36 of 1998) as amended	<p>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</p>
National Environmental Management: Waste Act (Act no. 59 of 2008,) as amended	<p>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</p>
National Heritage Resources Act, 1999 (Act No. 25 of 1999)	<p>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</p>

National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004)	The Act provides for the management and conservation of South Africa's biodiversity within the framework of the 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.

1.4 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:

You look at the proposed development in different ways; find a new perspective that you haven't thought of before. Brainstorming, or rapid noting of alternatives no matter how silly,

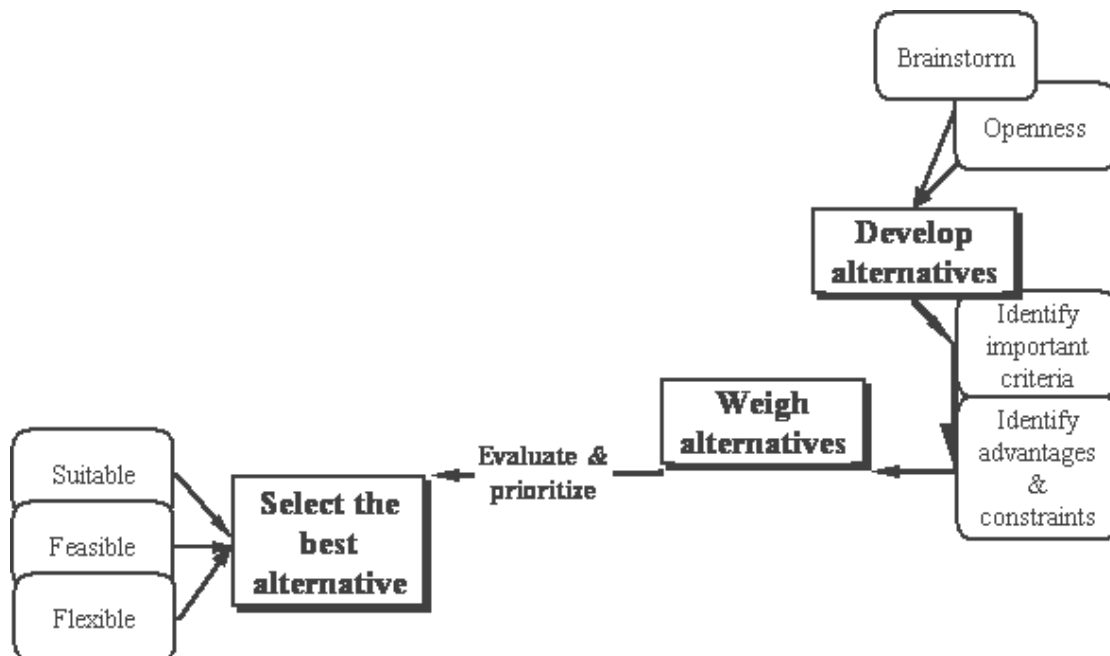
is an excellent discovery process. Once you have listed or mapped alternatives, be open to their possibilities. Make notes on those that:

- Need more information
- Are new solutions
- Can be combined or eliminated
- Will meet opposition
- Seem promising or exciting

Weigh Alternatives after listing possible alternatives, evaluate them without prejudice, no matter how appealing or distasteful

After weighing the alternatives, you evaluate them considering the following aspects:

- Impact on the environment
- Availability of capital/funds
- Availability of expertise to implement the alternative
- Its suitability to the local area and environment



After evaluation you choose the best alternative considering the above-mentioned aspects

Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property,	Description

	properties, activity, design, technology, energy, operational or other (provide details of “other”)	
1	Proposal	<p>Use of an excavator</p> <ul style="list-style-type: none"> • The river will be diverted from portion 79 through to portion 82 in order for the work to be undertaken. • All materials that are within the dam will be removed and stored temporarily on portion 81 and 82 for reuse, and should there be excess material remaining on site, the materials will be disposed of at the registered landfill site. • The test will be taken before disposal of all soil materials in order to ascertain if they will be disposed of as general or hazardous waste. • The excavator will dig 2-3m deep near the dam wall within portion 82, one and half metres deep on portion 81 and 1m deep at portion 79 in order to restore the dam capacity.
2	Alternative 1	<p>Plain-Suction: A plain-suction dredge is the most common type of sediment removal equipment. Unlike other dredge versions, it doesn't contain a tool for penetrating or cutting into the bottom of the water body — it relies on suction to remove loose debris.</p>
3	Alternative 2	
	Etc.	

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



1.5 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 (<i>Total environmental (landscaping, parking, etc.) and the building footprint</i>)	9833.72m ²
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	

or, for linear activities:

	Length of the activity:
Proposed activity	
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	

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

	Size of the site/servitude:
Proposed activity	9833.72m ²
Alternatives:	
Alternative 1 (if any)	

Alternative 2 (if any)



Ha/m²

5. SITE ACCESS

Proposal

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

YES	

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

Describe the type of access road planned:



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?

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

Describe the type of access road planned:



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?

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

Describe the type of access road planned:



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



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 kilometres, 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.

1.7 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.

1.8 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.

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

"insert No. of duplicates"

times

Instructions for completion of Section B for location/route alternatives

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

Section B has been duplicated for location/route alternatives	"insert No. of duplicates"	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

--

(complete only when appropriate for above)

Section B – Location/route Alternative No. (complete only when appropriate for above)

2.1 Property Description

Description of the property/properties where activity is proposed to be undertaken:	Farmall Agricultural Holdings			
Farm/ Erf name(s) & number(s) (including portion/ holding) of all proposed sites:	Plot 79; 80; 81 and 82			
Property size(s)(ha) of all proposed sites	Plot 80=2.1009ha Plot 79 = 2.1010ha Plot 81 = 2.0236ha Plot 82 = 2.1084ha			
Property size(s) (m ²) of all proposed sites:	80 000m ²			
Development footprint size(s) in ha/m ² :	9833.72m ²			
SG Digit code(s) of all proposed sites:	Plot 80= T0JQ00090000008000000 Plot 79 = T0JQ00090000007900000 Plot 81 = T0JQ00090000008100000 Plot 82 = T0JQ00090000008200000			
Coordinates of all proposed sites:	Plot 80	Plot 79	Plot 81	Plot 82
	-26.004782	-	-	-
	Latitude (S)	26.004874	26.004977	26.004105
Longitude €	27.952937	27.95195	27.953858	27.955269

Note: Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94 WGS84 co-ordinate system. Where numerous properties/sites are involved (e.g. linear activities), please attach a list of property descriptions separately.

Physical/Street address of proposed sites:

Rowles Road

Current Zoning of site(s)

Agricultural Small holdings

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.

Plot 80	Plot 79	Plot 81	Plot 82
-26.004782	-26.004874	-26.004977	-26.004105
27.952937	27.95195	27.953858	27.955269

In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

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

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

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

PROPOSAL	T	0	J	Q	0	0	0	9	0	0	0	0	0	0	8	0	0	0	0	0
	T	0	J	Q	0	0	0	9	0	0	0	0	0	0	7	9	0	0	0	0
	T	0	J	Q	0	0	0	9	0	0	0	0	0	0	8	1	0	0	0	0
	T	0	J	Q	0	0	0	9	0	0	0	0	0	0	8	2	0	0	0	0
ALT. 1																				
ALT. 2																				
etc.																				

2.3 Gradient Of the Site

Indicate the general gradient of the site.

	1:50 – 1:20	
--	----------------	--

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)
- Dolomite, sinkhole or doline areas
- Seasonally wet soils (often close to water bodies)
- Unstable rocky slopes or steep slopes with loose soil
- Dispersive soils (soils that dissolve in water)
- Soils with high clay content (clay fraction more than 40%)
- Any other unstable soil or geological feature
- An area sensitive to erosion

YES	
	NO
YES	
	NO
YES	
YES	
	NO
	NO

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

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

	NO
--	----

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)

YES 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)?

YES

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

Natural veld - good condition % = 90	Natural veld with scattered aliens % =10	
---	---	--

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?

	NO
--	----

If YES, specify and explain:

--

Was a specialist consulted to assist with completing this section

	NO
--	----

If yes complete specialist details

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone:

Cell:

E-mail:

Fax:

Are any further specialist studies recommended by the specialist?

YES	NO
-----	----

If YES, specify:

--

If YES, is such a report(s) attached?

YES	NO
-----	----

If YES list the specialist reports attached below

--

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

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

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						
WEST	15; 34	15; 34	15; 34	15; 34	15; 34	EAST
	1; 34	1; 34	1; 34	1; 34	1; 34	
	15; 34	15; 34	15; 34	15; 34	15; 34	
	15; 34	15; 34	15; 34	15; 34	15; 34	
	1; 34	1; 34	1; 34	1; 34	1; 34	
SOUTH						

= Site

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

Water Resource Risk Assessment

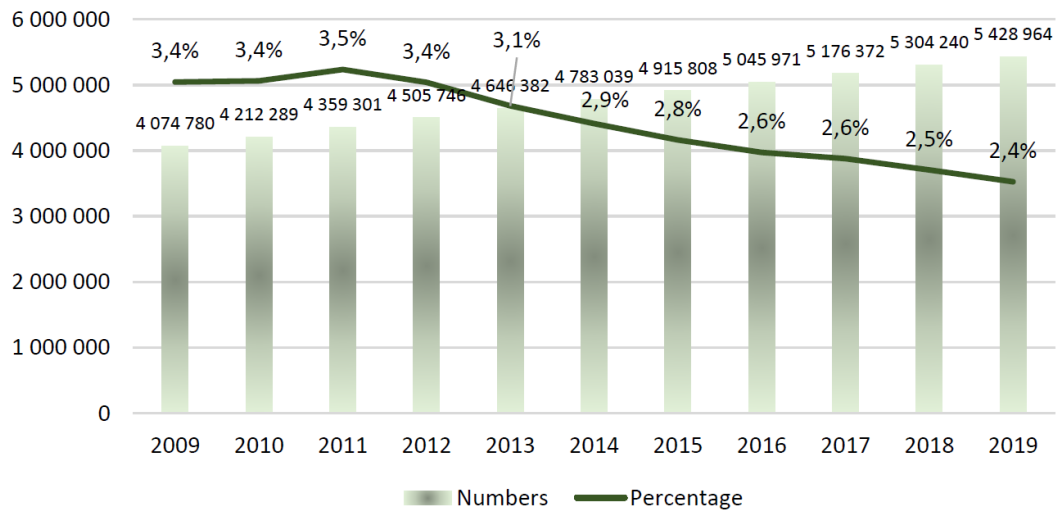
2.10 Socio-Economic Context

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.

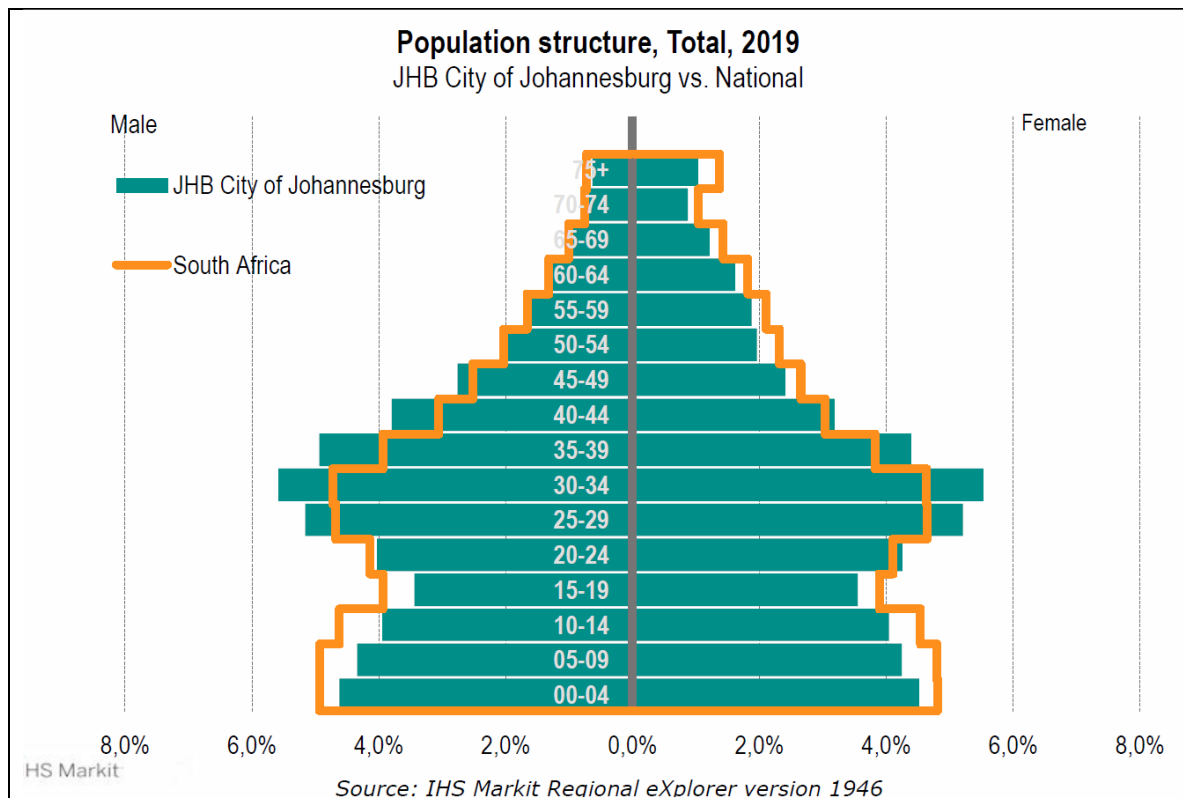
City of Johannesburg Population Growth in Numbers and Percentage: 2009 - 2019



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.



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).

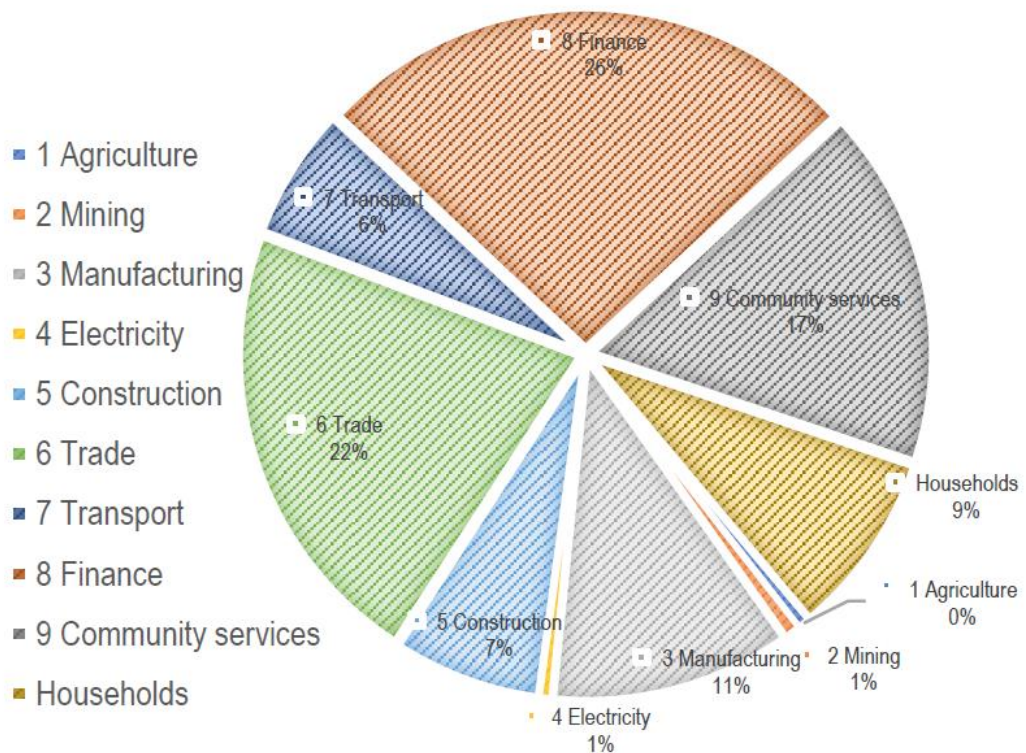
Employment/Unemployment

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

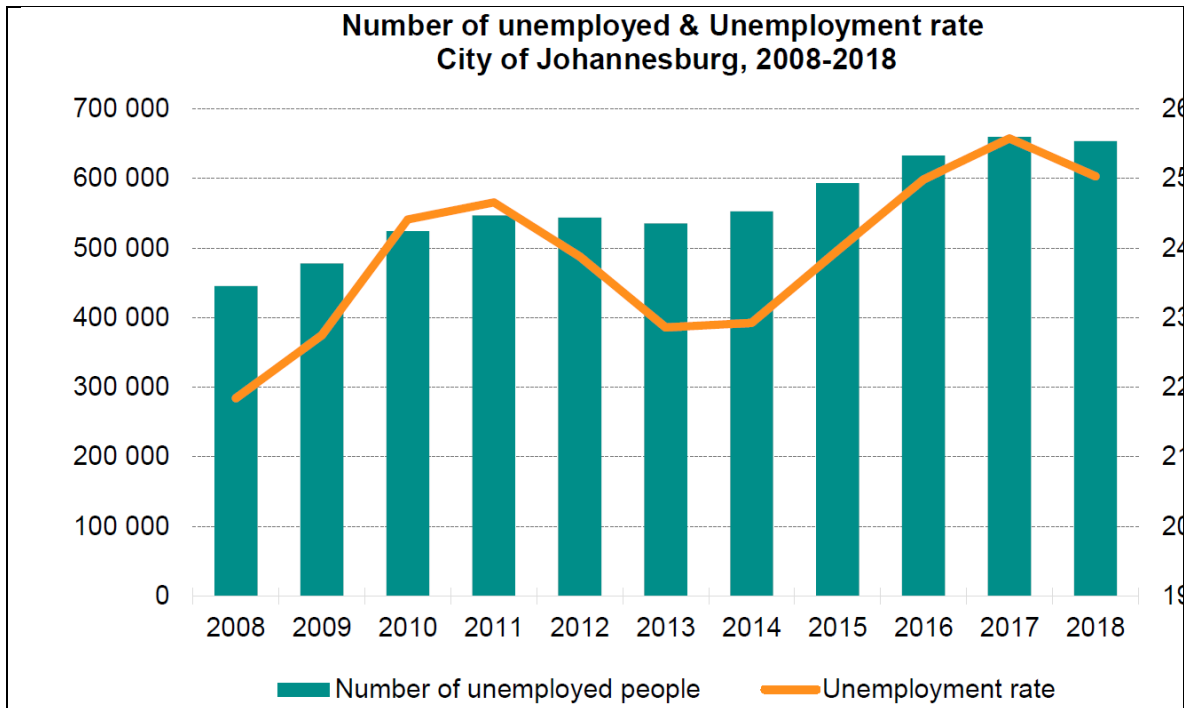
those employed in that sector. 22% are employed in the trade and retail sector. 17% are in the community services sector which includes the general government services, given that the provincial capital is in the city.

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

EMPLOYMENT COMPOSITION CITY OF JOHANNESBURG, 2018



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.

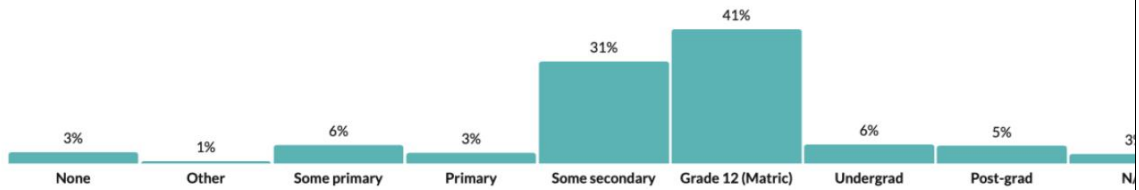


Source: IHS Markit Regional eXplorer version 1692

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.

Population by highest educational level



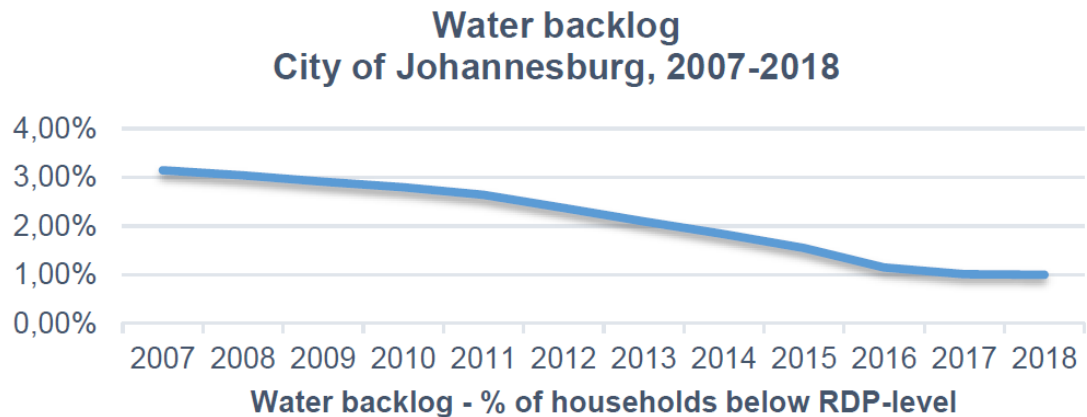
* Universe: Individuals 20 and older
Source: Community Survey 2016

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 learners. The City has 30 186 educators, this means that about 37% of the province’s educators are in the City of 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.

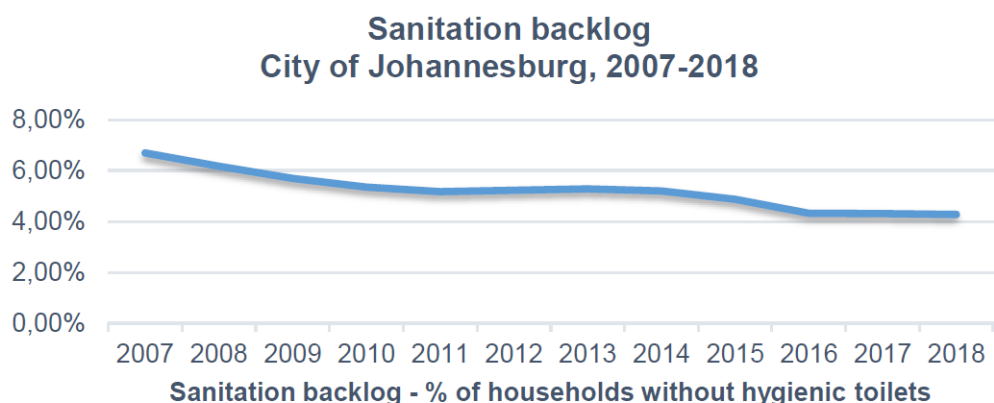


Source: IHS Markit Regional eXplorer version 1870

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.



2.11 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?

If YES, explain:

[Redacted area]

	NO
--	----

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

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



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

YES	
-----	--

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

	NO
--	----

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

3 SECTION C: PUBLIC PARTICIPATION (SECTION 41)

1. 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	<input checked="" type="checkbox"/>
-----	-------------------------------------

If yes, has any comments been received from the local authority?

<input checked="" type="checkbox"/>	NO
-------------------------------------	----

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

<input checked="" type="checkbox"/>

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

Still busy with public engagement

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?

<input checked="" type="checkbox"/>	NO
-------------------------------------	----

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

<input checked="" type="checkbox"/>

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

Still busy with public engagement

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 alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for
alternatives

"insert No. of duplicates"

times

(complete only when appropriate)

Section D Alternative
No.

"insert alternative number"

(complete only when appropriate
for above)

4.1 Waste, effluent, and emission management

4.1.1 Solid waste management

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

YES

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

9000m³

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

Approximately 9,000 cubic meters of material will be removed. All materials that are within the dam will be removed and stored temporarily on portion 81 and 82 for reuse, and should there be excess material remaining on site, the materials will be disposed of at the registered landfill site.

The test will be taken before disposal of all soil materials in order to ascertain if they will be disposed of as general or hazardous waste

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

the materials will be disposed of at the registered landfill site

Will the activity produce solid waste during its operational phase?

NO

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

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

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?

	NO
--	----

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

If material is not hazardous, it will be used to surface gravel roads in the area

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:

If material is not hazardous, it will be used to surface gravel roads in the area

4.1.2 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)?

--	--

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

--	--

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:

	Cell:	
	Fax:	

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



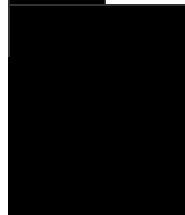
4.1.3 Liquid Effluent (Domestic Sewage)

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)?



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.



4.1.4 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?	
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.	
<p>If no, describe the emissions in terms of type and concentration:</p> <p>Particulate Matter</p> <p>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.</p> <p>Volatile organic compounds (VOCs)</p> <p>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.</p> <p>Carbon Monoxide (CO)</p> <p>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.</p> <p>Sulphur Dioxide (SO2)</p> <p>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.</p> <p>Air Toxics</p> <p>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.</p> <p>Coolants</p> <p>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.</p>	

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)

4.2 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 Permit

If yes, have you applied for the water use permit(s)?

YES	
-----	--

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

	NO
--	----

4.3 Power Supply

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

The project will not utilise electricity

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

Not Applicable

4.4 Energy Efficiency

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

Not applicable

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

Not applicable

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

Summarise the issues raised by interested and affected parties.

None were received

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):

Will be finalized during the final draft report

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.

PARAMETERS	DESCRIPTION
Extent	Refers to the physical or geographical size that is affected by the impact. It can be categorised into the following ranges: <ul style="list-style-type: none"> Onsite – Within specific site boundary (weight value – 1) Local – Within municipal boundary (weight value – 2) Regional – Outside municipal boundary (weight value – 3)
Duration	Time span associated with impact: <ul style="list-style-type: none"> Short term – 1 Year or less (weight value – 1) Medium term – 1-5 Years (weight value – 2)

		<ul style="list-style-type: none"> Long term – Longer than 5 Years (weight value – 3) 			
Intensity and Reversibility		<p>The severity of an impact on the receiving environment:</p> <ul style="list-style-type: none"> Low – Natural and/or cultural processes continue in a modified way and is reversible (weight value – 1) Medium – Natural and/or cultural processes stop and is partially reversible (weight value – 2) High – Natural and/or cultural processes disturbed to an irreversible state (weight value – 3) 			
Impact Significance/Consequence		<p>Adding the extent, duration and intensity together provides the significance of the impact (High, Medium or Low).</p> <p>Extent + Duration + Intensity = High/Medium/Low Impact</p>			
Probability		<p>The likelihood of an impact occurring:</p> <ul style="list-style-type: none"> Unlikely – 0% - 45% chance of the potential impact occurring (weight value – 1) Possible – 46% - 75% chance of the potential impact occurring (weight value – 2) Likely – >75% chance of the potential impact occurring (weight value – 3) 			
Environmental Risk Refer to table below		<p>Multiplication of the significance of the impact by the probability of the impact occurring produces a final conclusion of the overall risk that an impact poses to the surrounding environment.</p> <p>High/Medium/Low Impact X Probability = High/Medium/Low Environmental Risk</p>			
Significance of Impact					
		Low Impact (1-5)	Medium Impact (6-8)	High Impact (9)	
Probability	Definite/Very Likely (3)	9 - 15 L - M	18 - 24 M - H	27 H	
	Possible (2)	6 - 10 L - M	12 - 16 M	18 M - H	
	Unlikely (1)	3 - 5 L	6 - 8 L	9 L	

ENVIRONMENTAL RISK	Guidelines for Control Strategies	
(H)-High	Proactively reduce risk level, short term response	
(M-H) Medium-High	Proactively reduce risk level, short term response	
(M)-Medium	Management strategies to reduce risk level, short to medium term response	
(L-M) Low-Medium	Management strategies to reduce risk level, short to medium term response, operational control and housekeeping	
(L)-Low	Operational Control	

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

Proposal				
Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and 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	-ve	Development must comply with relevant legislation and/or policy, e.g., Municipal By-laws, SDFs, etc.	+ve	Low
CONSTRUCTION WORKS				
Site Clearing	-ve	• No vehicle servicing or re-fuelling is to	+ve	Low

Site clearing on the site will have a minimal impact because less vegetation will be removed and there will be no need for a site camp to be established		<p>take place outside of the freshwater resources and its applicable setback zone;</p> <ul style="list-style-type: none"> • Areas where bank failure is observed because of the construction activities, it should be immediately repaired 		
<p>Soil and surface water contamination.</p> <p>Spillage of chemicals or oil leaks from construction vehicle may result in the contamination of the soil and surface water.</p>	-ve	Desiltation should be done during the dry season to avoid flooding risk which will increase contamination and affect construction activities.	+ve	Low
<p>Noise</p> <p>Noise generated during construction can result in nuisance impact to neighboring property owners.</p>	-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.	+ve	Low
<p>Potential increase of chemical content in sediments and the water after desiltation</p>	-ve	Continuous water monitoring should be implemented to check the chemical and physical content	+ve	Low

<p>Dispersal of contaminants into the water due to excavation</p> <p>Contaminants previously dispersed deposited back into sediments after desiltation</p> <p>Excavation exposes new layer of sediments with higher value of contaminants</p>		<p>of the water after desiltation</p>		
<p>Air Quality</p> <p>When operating, the vehicles (transportation of sand from site) and excavator during desiltation will discharge air pollutants into the environment such as CO_x, NO_x, SO_x, hydrogen carbon, dust.</p>	<p>-ve</p>	<ul style="list-style-type: none"> • 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. • Any complaints or claims emanating from the lack of dust control shall be attended to immediately by the contract and ECO. • Vehicles and equipment used on site should 	<p>+ve</p>	<p>Low</p>

		have their service records up to date.		
Waste Generation Waste generation during the desiltation will have a negative impact on the environment if it is contaminated and if not controlled adequately.	-ve	<ul style="list-style-type: none"> • Tests should be done on the sand to determine if its contaminated. If results come back positive the sand will be disposed of at a hazardous landfill site. 	+ve	Low
Health and Safety of Employees There will be a risk of drowning during the desiltation	-ve	<ul style="list-style-type: none"> • A dedicated health and safety officer should be available on site. • Desiltation should be done during the dry season 	+ve	Low
OPERATIONAL IMPACTS				
Visual Impact The dam will be restored to its natural state and will increase the aesthetics of the area.	+ve	None	+ve	
Species Richness Before the dam was filled up with sand, it attracted a lot of bird species and other wildlife. It is anticipated that wildlife will return once the rehabilitation is complete and will flourish.	+ve	None	+ve	

<p>Water Quality</p> <p>The continuous monitoring of the water quality in the dam will enhance water quality down stream</p>	+ve	None	+ve	
<p>Flood Prevention</p> <p>Currently when it rains, flooding occurs and affects properties adjacent to the dam. When desilting is complete, there will not be any risk of flooding to adjacent properties.</p>	+ve	None	+ve	

Alternative 1 (IMPACTS WILL BE THE SAME AS THE PROPOSED/PREFERRED ALTERNATIVE)

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

No Go				
Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Flooding</p> <p>If desiltation is not carried out flooding</p>	-ve		-ve	High

will continue to affect properties adjacent to the dam				
Foul Odor If dam is not rehabilitated, the foul odour from sewer that spilt into dam will continue to affect residents near the dam.	-ve		-ve	High
Ecological Before the sewer spillages and the subsequent siltation of the dam, it used to very rich in terrestrial and aquatic ecological species which all diminished due to the spillage and siltation of the dam. If it is not rehabilitated, the dam will never regain that ecological richness it once had.	-ve		-ve	High
Crime Due to the dam filling up with sand, criminals can now access properties across the dam, and residents have had to pay for security upgrades.	-ve		-ve	High
Property Value Depreciation	-ve		-ve	High

The filling up of the dam has negatively affected the property values for the houses along the dam. If rehabilitation is not carried out, property owners will lose millions.				
Visual Impact The filling up of the dam has affected the aesthetic beauty of the area.	-ve		-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.

Water Resource Risk Assessment Ecological Impact Assessment
--

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

<p>Assumptions and Limitations of the EAP:</p> <p>The following assumptions and limitations are applicable to the studies undertaken within this Basic Assessment Process:</p> <ul style="list-style-type: none"> • 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. • 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.

Proposal

Potential impacts:	Significance rating of impacts(positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

Alternative 1

Potential impacts:	Significance rating of impacts(positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

Alternative 2

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

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

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

5.4 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:

Species Richness

Before the dam was filled up with sand, it attracted a lot of bird species and other wildlife. It is anticipated that wildlife will return once the rehabilitation is complete and will flourish.

Socio-Economic

The development will have positive socio-economic cumulative impacts such as the provision of recreational facilities in the area.

5.5 Environmental Impact Statement

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

PROPOSAL

POTENTIAL ENVIRONMENTAL IMPACT	ENVIRONMENTAL SIGNIFICANCE BEFORE MITIGATION						RECOMMENDED MITIGATION MEASURES/REMARKS	ENVIRONMENTAL SIGNIFICANCE AFTER MITIGATION MEASURES					
	E	D	I	P	TOTAL	RISK		E	D	I	P	TOTAL	RISK
PLANNING AND DESIGN													
DIRECT IMPACT													
Policy Compliance The proposed development may not be consistent with relevant environmental policy and/or spatial guideline documents, (e.g. close to a watercourse).	2	2	3	3	21	Medium - High		2	1	1	1	4	Low
CONSTRUCTION PHASE													

<p>Site Clearing</p> <p>Site clearing on the site will have a minimal impact because less vegetation will be removed and there will be no need for a site camp to be established</p>	1	2	1	3	12	Low - Medium	<ul style="list-style-type: none"> •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 because of the construction activities, it should be immediately repaired 	1	1	1	1	3	Low
<p>Soil and surface water contamination.</p> <p>Spillage of chemicals or oil leaks from construction vehicle may result in the contamination of the soil and surface water.</p>	1	2	3	3	18	Medium - High	Desiltation should be done during the dry season to avoid flooding risk which will increase contamination and affect construction activities.	2	3	1	2	12	Low
<p>Noise</p> <p>Noise generated during construction can result in nuisance impact to</p>	2	2	3	3	21	Medium- High	<ul style="list-style-type: none"> • SANS 10103 and the National Noise Control Regulation should be used as the main 	1	3	2	2	12	Low

neighboring property owners.							guidelines for addressing the potential noise impact on this project.						
Potential increase of chemical content in sediments and the water after desiltation <ul style="list-style-type: none"> Dispersal of contaminants into the water due to excavation. Contaminants previously dispersed deposited back into sediments after desiltation. Excavation exposes new layer of sediments with higher value of contaminants. 	1	3	2	3	18	Medium-High	<ul style="list-style-type: none"> Continuous water monitoring should be implemented to check the chemical and physical content of the water after desiltation. 	1	3	1	1	5	Low
Air Quality <ul style="list-style-type: none"> When operating, the vehicles (transportation 	2	3	2	3	21	Medium-High	<ul style="list-style-type: none"> Excavations and other clearing activities must only be done during 	2	1	1	1	5	Low

<p>of sand from site) and excavator during desiltation will discharge air pollutants into the environment such as CO_x, NO_x, SO_x, hydrogen carbon, dust.</p>							<p>agreed working times and permitting weather conditions to avoid drifting of sand and dust into adjacent areas.</p> <ul style="list-style-type: none"> Any complaints or claims emanating from the lack of dust control shall be attended to immediately by the contract and ECO. Vehicles and equipment used on site should have their service records up to date. 							
<p>Waste Generation Waste generation during the desiltation will have a negative impact on the environment if it is contaminated and if not controlled adequately.</p>	1	3	1	3	15	<p>Low-Medium</p>	<ul style="list-style-type: none"> Tests should be done on the sand to determine if its contaminated. If results come back positive the sand will be disposed of at a hazardous landfill site. 	1	3	1	1	5		Low

<p>Health and Safety of Employees</p> <p>There will be a risk of drowning during the desiltation</p>	3	3	3	2	18	Medium-High	<ul style="list-style-type: none"> • A dedicated health and safety officer should be available on site. • Desiltation should be done during the dry season 	1	3	1	1	5	Low
<p>River impacted by proposed development</p> <p>Potential negative impacts on the River. E.g. disturbance to river bed and banks due to construction materials and vehicles</p>	1	3	3	3	21	Medium-High	<ul style="list-style-type: none"> • The river must be returned to its natural state after completion 	1	3	1	1	5	Low

5.6 Impact Summary of The Proposal Or Preferred Alternative

For proposal:

All activities that are related to the proposed activity that could have the same impacts on the environment were identified. These impacts can be of environmental, socio-economic, cultural nature. Impacts are often not only confined within the direct scope of the proposed activity and accumulate as a network of indirect impacts on the surrounding area.

The significance will be determined by both the extent and duration of the impact. The environmental risk of any aspect is determined by a combination of parameters associated with the impact. Each parameter connects the physical characteristics of an impact to a quantifiable value to rate the environmental risk.

For alternative:



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

After assessment of significance impacts it has been clear that the proposed development will have very minimal impacts as identified on the impact statement, therefore the environment will be preserved and well maintained.

5.7 Spatial Development Tools

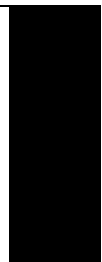
Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

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

5.8 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



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



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

- The 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.
- Desiltation should be carried out during the dry season.

5.9 The Needs and Desirability Of The Proposed Development
(as per notice 792 of 2012, or the updated version of this guideline)



The largest change in the surface area of Watercombe Dam can be observed between 2016 and 2017 which indicates an unnatural even may have led to sedimentation of the Watercombe Dam

The Watercombe Dam must be rehabilitated to re-establish the original surface area. The dam provides a habitat for the fauna, especially avifauna, within the area as indicated below:



Furthermore, the restoration of dam surface area will reduce the velocities of flows to the downstream areas which could present a chance to rehabilitate the downstream watercourse area.

5.10 The Period for Which The Environmental Authorisation Is Required

(CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)

5 years

6 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

7 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

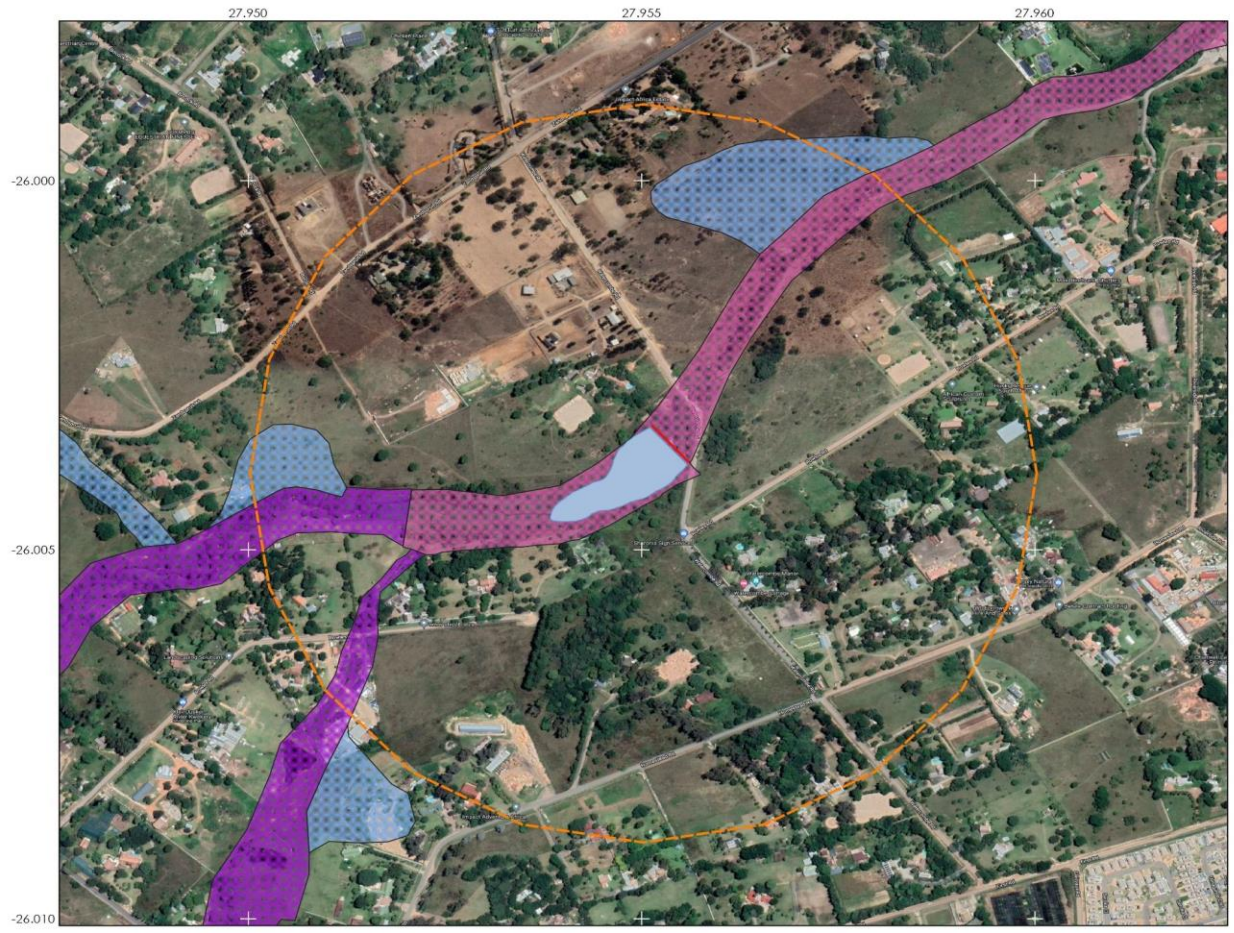
Appendix I: Other information

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



Legend

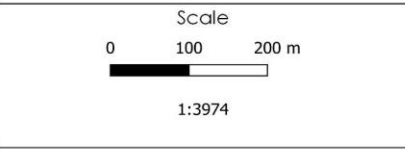
- Watercombe Dam
 - Dam Wall
 - Dam
- 500m DWS WUA Area
- National Wetland Map 5
 - CVB
 - SEEP
 - UVB
- Google Satellite

National Setting

Prepared by:



DISCLAIMER
 Although every effort has been made to ensure the accuracy of this map, the author cannot be held liable for any loss or damage resulting from the use of this map. This map must not be considered an authority or official document on the delimitation of international and other boundaries.



Prepared for:

Project:

Watercombe Dam Rehabilitation

Appendix B: Photographs

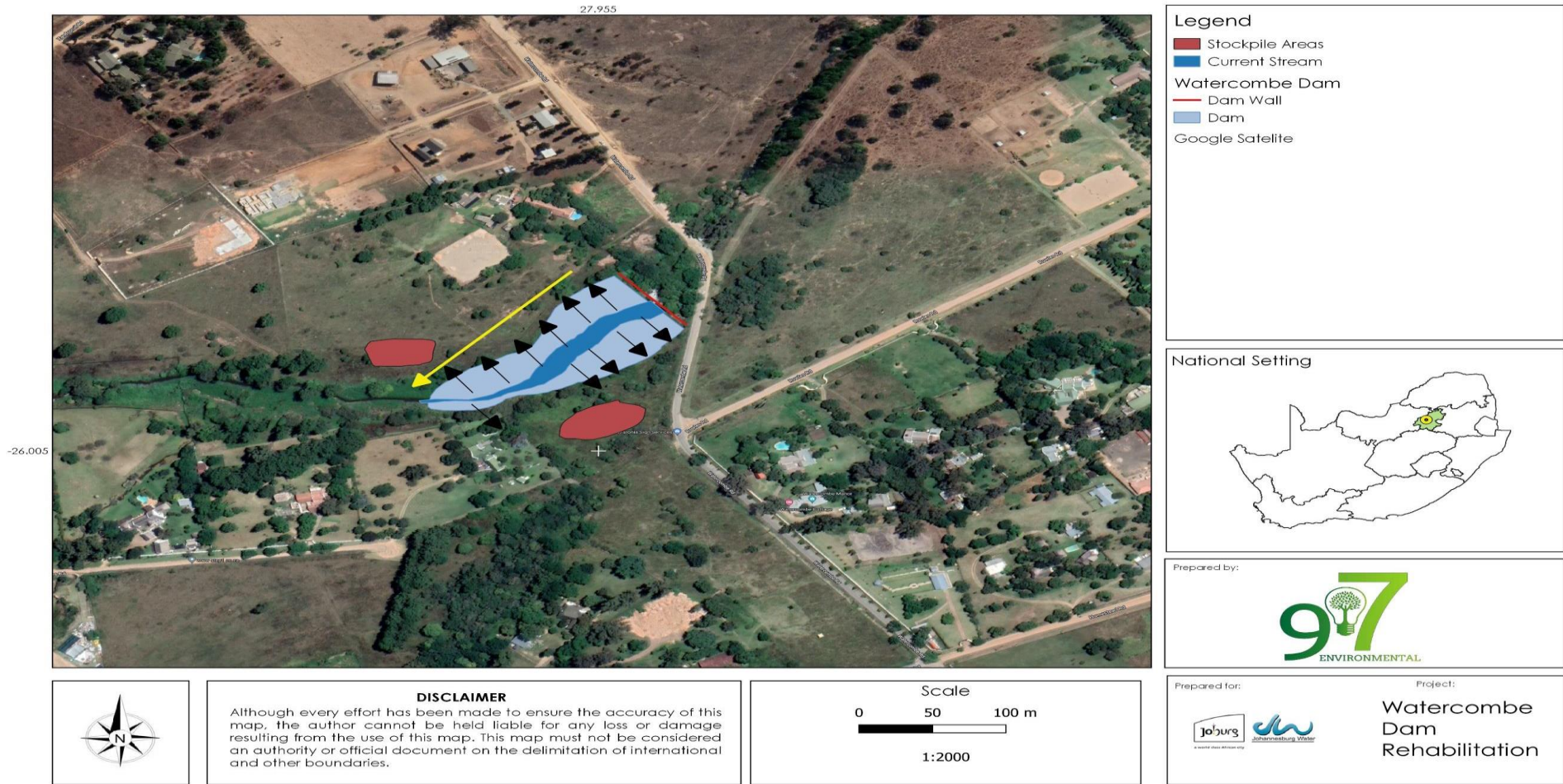
BEFORE THE DAM WAS FILLED WITH SAND



AFTER THE DAM WAS FILLED UP WITH SAND



Appendix C: Facility illustration(s)



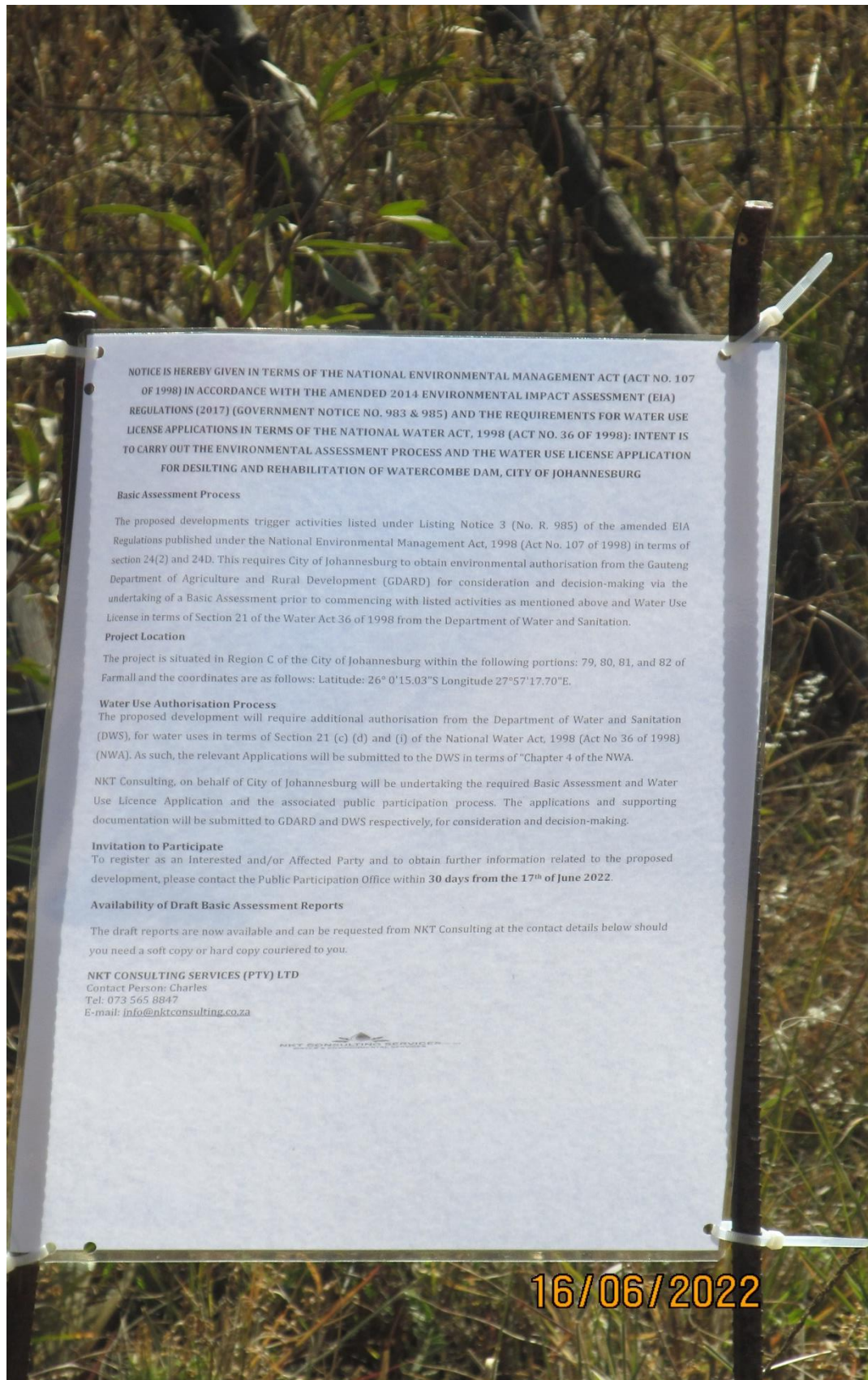
The **YELLOW** arrow presents the general direction of working, earthmoving must commence closest to the dam wall and progress towards the edge of the water. A depth of 4m is approximated at the deepest part of the dam (at the dam wall). The **BLACK** arrows indicate the direction that the sediment must be pulled out of the dam on either side

Appendix D: Route position information

Not Applicable

Appendix E: Public participation information

Appendix E1: Site Notices





FOR THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT ACT NO. 107 OF 2012 AND THE AMENDED 2014 ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS (G.O.P. NOTICE NO. 1951) AND THE REQUIREMENTS FOR WATER QUALITY MONITORING OF THE NATIONAL WATER ACT, 1996 (ACT NO. 36 OF 1996) IN THE ENVIRONMENTAL ASSESSMENT PROCESS AND THE WATER USE LICENSE APPLICATION FOR THE REHABILITATION OF WATERCOURSE DAM, CITY OF JOHANNESBURG.

The Department of Water and Sanitation, under Listing Notice 3 (No. 8, 1995) of the amended EIA Regulations under the National Environmental Management Act, 1996 (Act No. 107 of 2012) requires the City of Johannesburg to submit environmental authorisation for the Rehabilitation and Water Development (RDWD) for consideration and processing by the Department of Water and Sanitation (DWS) for consideration and processing by the Department of Water and Sanitation (DWS) prior to commencing with listed activities as mentioned above and that the activities are subject to the provisions of the Water Act No. 36 of 1996 from the Department of Water and Sanitation.

Location
 The project is situated in Region C, of the City of Johannesburg within the following sections T4, B1, B2 and C1 of the City of Johannesburg as defined in the Johannesburg Metropolitan Municipality (JMP) Constitution. The coordinates are as follows: Latitude: 26° 12' 30" S Longitude: 27° 51' 30" E.

Public Participation Process
 The project proponent will require additional information from the Department of Water and Sanitation (DWS) in order to comply with the requirements of the National Water Act, 1996 (Act No. 36 of 1996) and the Environmental Assessment Act, 2012 (Act No. 107 of 2012). The relevant Applications will be submitted to the DWS in terms of Chapter 4 of the Act.

Public Participation
 The City of Johannesburg will be supporting the required Public Participation and the relevant public participation process. The application and supporting information will be submitted to DWS and DWS responses to consultation and assessment.

Availability of Draft Basic Assessment Report
 The draft report will be available on the project website for public comment.

CONTACT THE DEVELOPER
 City of Johannesburg
 10001, 10002, 10003
 10004, 10005, 10006
 10007, 10008, 10009

16/06/2022

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

Will be attached on the final report

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information