



Maanakana Projects
and Consulting (Pty) Ltd



RAND WATER

Public Participation Presentation

by

Maanakana Projects and Consulting (Pty)

09th of February 2017

Public Participation Process

The Public Participation Process (PPP) that is currently underway for the proposed project is aimed at affording Interested and Affected Parties (I&APs) the opportunity to gain an understanding of all facets of the proposed project and to form part of the Basic Assessment Process.

I&APs are encouraged to participate in the process in order for concerns and suggestions to be addressed and be included in the Basic Assessment Report.

“The proposed construction and maintenance of the Rand Water 3 km Q6 pipeline with a diameter of 1400 mm from Rand Water Eikenhof pump station to Meredale reservoir as part of the inlet and outlet pipe and its associated infrastructures”.

- Maanakana Projects has been appointed by Rand Water to undertake the process of a BA process.
- A 3 Km Q6 pipeline (New pipeline) from RW Eikenhof pump station to Meredale reservoir.
- RW intend to do a maintenance of G38 pipeline which will start from Meredale to Baragwanath.

- G38 pipeline do not triggering NEMA Regulations and as part of best practice Rand Water felt the need to inform the public about the project.
- Q6 pipeline is requiring the Environmental Authorization and is triggering NEMA Regulations as per the listing notices below.

The proposed project is triggering an activity listed under Regulation 938, Listing Notice 1 and Listing Notice 3 of the National Environmental Management Act (Act 107 of 1998), which requires a Basic Assessment is required for the project as per the following listed activities:

Regulation	Activity	Description
GNR 983 Listing Notice No.1	9	The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water- (i) with an internal diameter of 0.36 metres or more; or (ii) With a peak throughput of 120 litres per second or more;
GNR 983 Listing Notice No.1	19	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from- (i) a watercourse;

The proposed project is triggering an activity listed under Regulation 938, Listing Notice 1 and Listing Notice 3 of the National Environmental Management Act (Act 107 of 1998), which requires a Basic Assessment is required for the project as per the following listed activities:

Regulation	Activity	Description
GNR 985 Listing Notice No.3	12	<p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>(a) Gauteng:</p> <p>(ii) Within critical biodiversity areas identified in bioregional plans</p> <p>(iii) On land where at the time of coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.</p>

National Water Act (Act 36 of 1998)

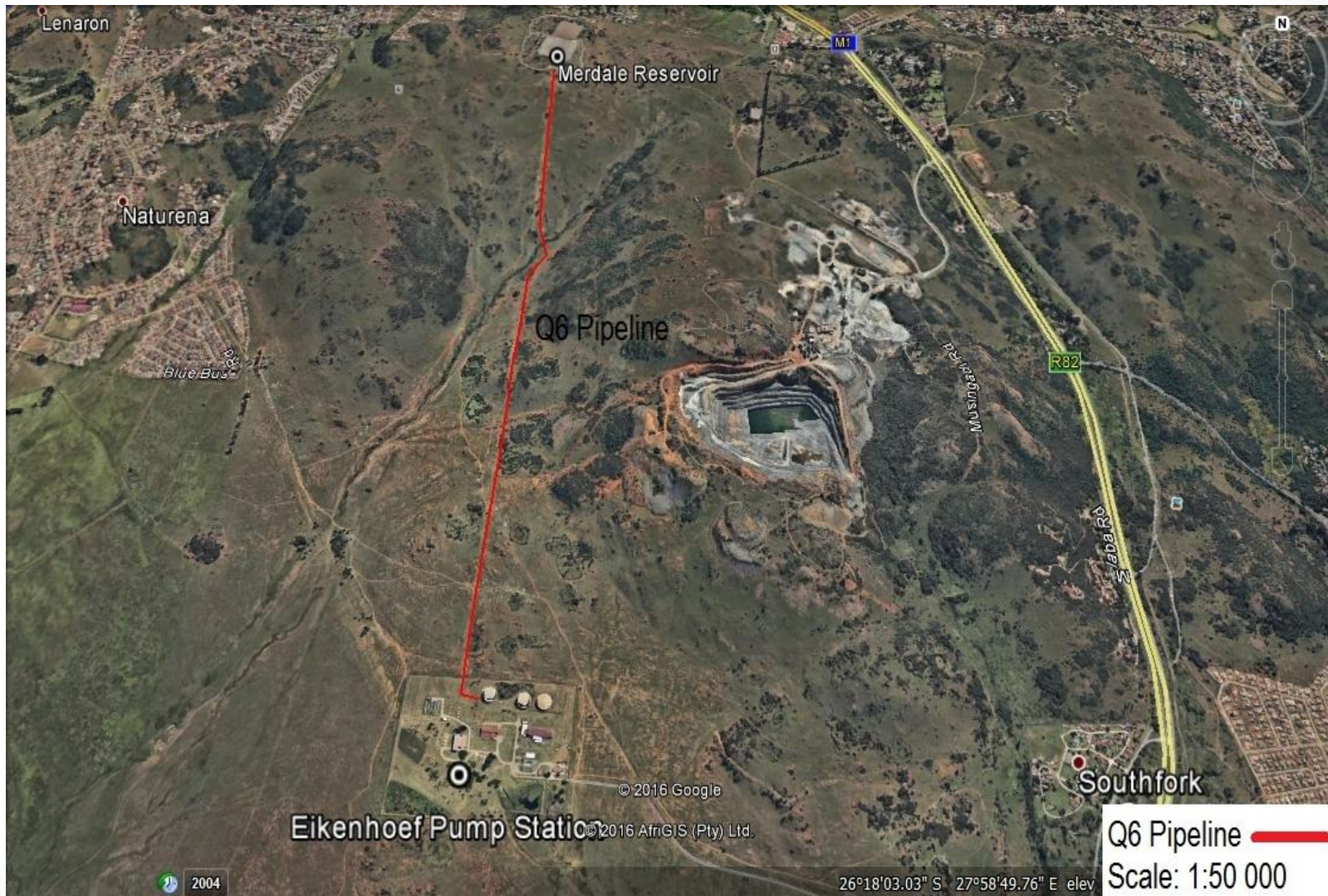
- The Department of Water and Sanitation (DWS) is the custodian of all water resources in the country, and is also responsible for the management thereof.
- Therefore authorization must be obtained before any water use as defined in Section 21 of the NWA get disturbed.
- The pipeline route will cross a watercourse, and therefore falls within the regulatory area.

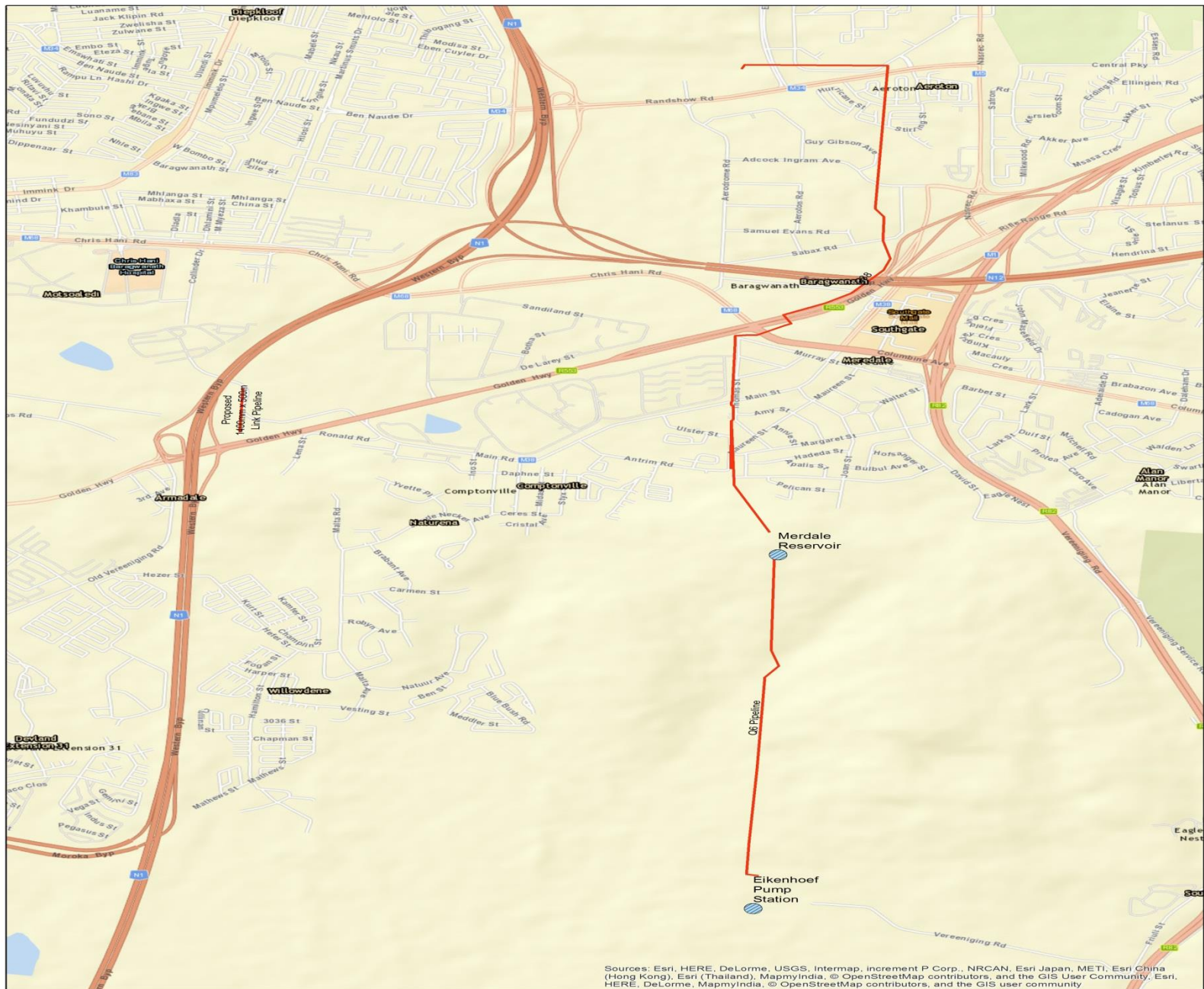
NWA (Act 36 of 1998)cont...

- Therefore in accordance with Section 40 of the NWA an application for Water Use Authorization in terms of Section 21(c) and (i) will be submitted to the DWS.

- The Water Use License Application (WULA) Process and Basic Assessment Process will run concurrently.
- A Water Use license (WUL) in terms of the Section 21 of the National Water Act (Act 36 of 1998) is being conducted because the Q6 pipeline is crossing a perennial stream between the Eikenhof Pumping Station and the Meredale reservoir.

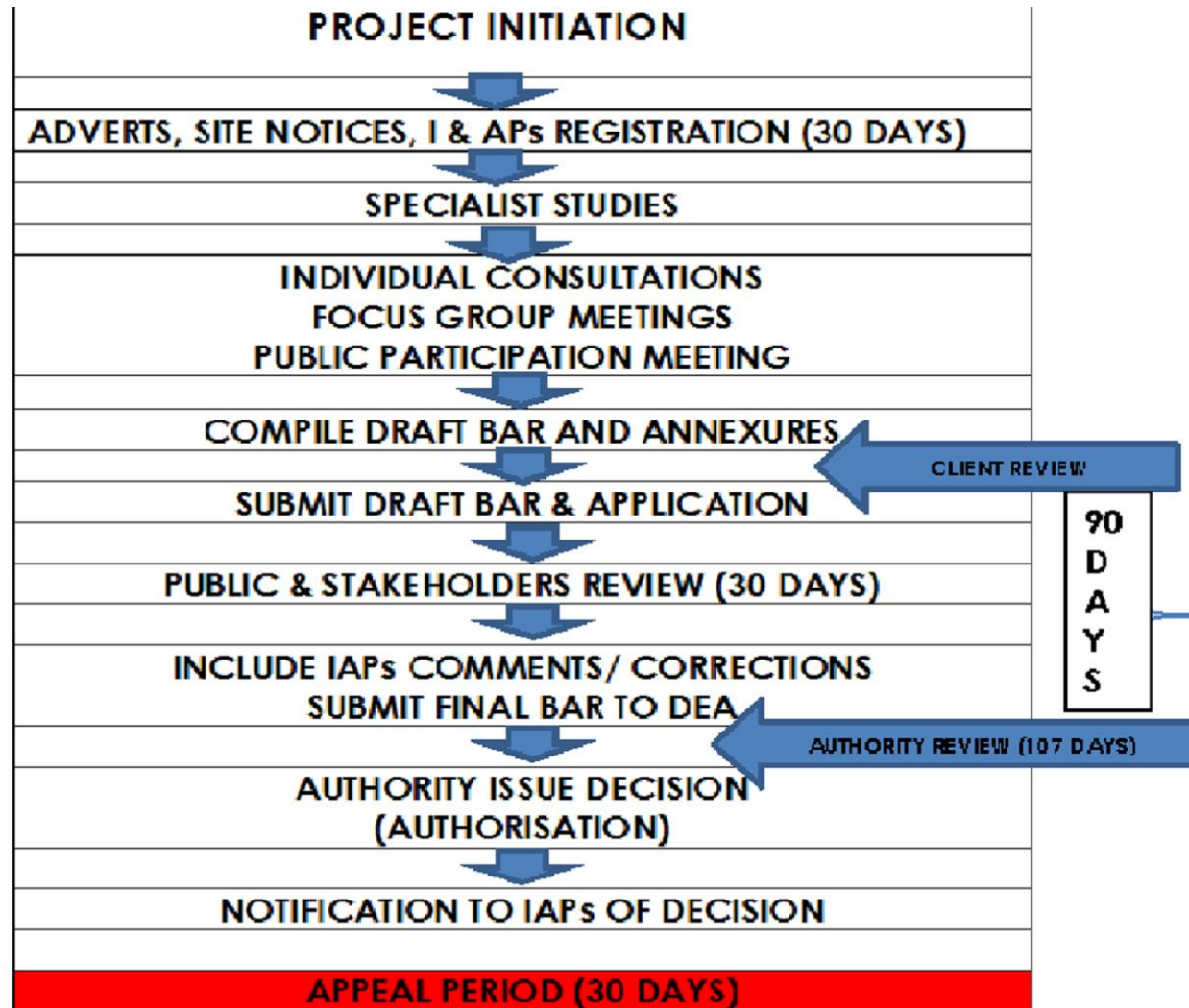
Locality Map





Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

BASIC ASSESSMENT PROCESS



Specialist studies identified

- Ecological Study
- Heritage Assessment
- Wetland Assessment
- Ridge Study

1a	Predominantly natural land (Thicket & Bushland) with limited slope elevation (plains). Generally visually exposed from major routes.
1b	Predominantly natural land (Thicket & Bushland) with limited slope elevation (plains). Remote and generally less exposed from major routes.
1c	Predominantly natural land (Thicket & Bushland - north, Grassland & Thicket - south) within strongly undulating terrain (hills & mountains). Visually secluded and generally remotely located.
1d	Predominantly natural land (Thicket & Bushland and Grassland) within strongly undulating terrain (hills & mountains). Visually exposed and located within urban areas.

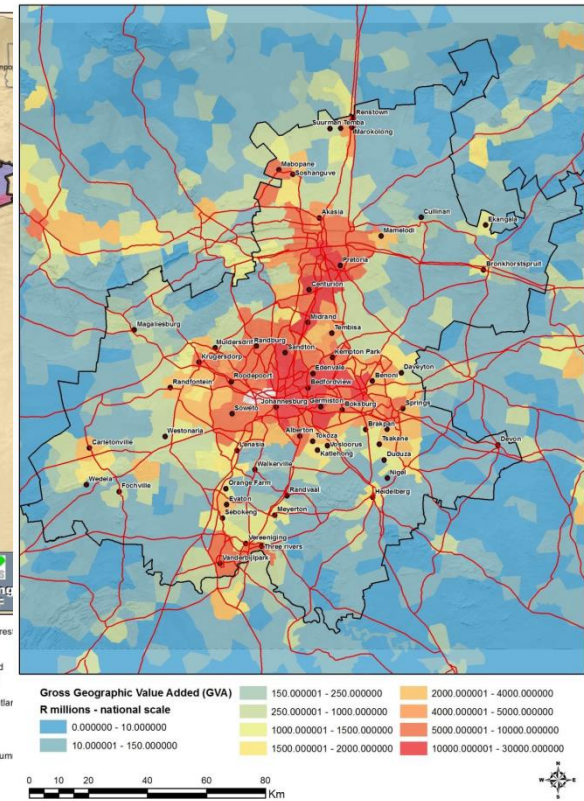
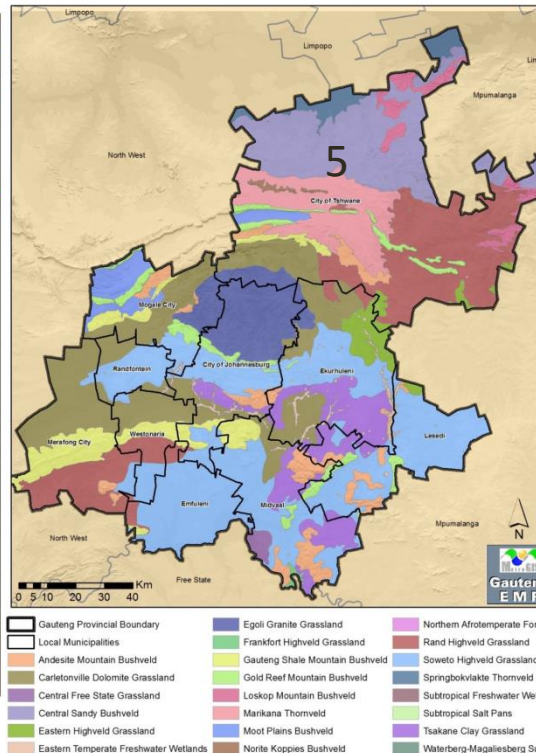
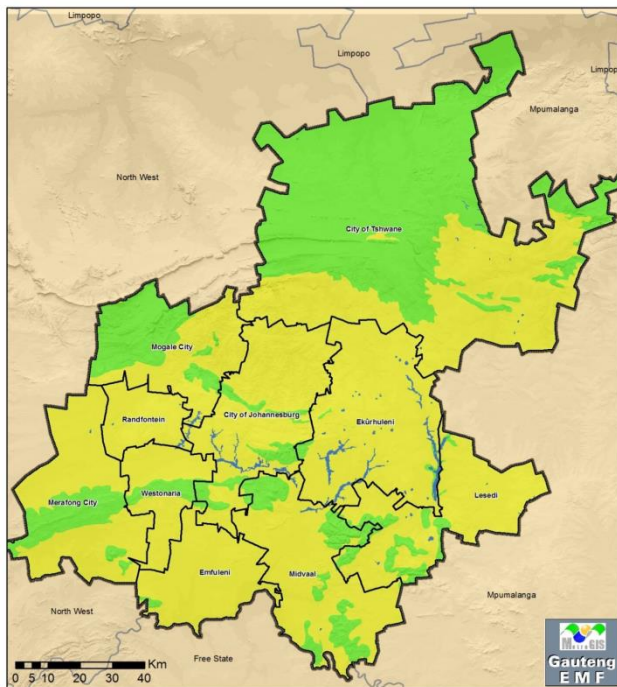
2a	Predominantly agricultural land located on grassland plains (limited slope elevation). Remote and generally less exposed from major routes.
2b	Predominantly agricultural land located on grassland plains (limited slope elevation). Generally visually exposed from major routes.

3a	Built-up land (residential, business, retail, etc.) originating from (and including) the Pretoria and Johannesburg central business districts.
3b	Built-up land (residential, CBD, etc.) with a strong mining and/or industrial character.
3c	Built-up land (primarily residential) located on elevated topography.
3d	Built-up land associated with the Vereeniging, Vanderbijlpark and Sasolburg industrial and mining activities.

4a	Small holdings/agricultural holdings with mixed agricultural and rural lifestyle activities (e.g. equestrian estates). Located along the outlying perimeter of large urban centres.
4b	Formal township developments and residential areas located within a rural environment.
4c	Mining activities (Carltonville area) located within a predominantly rural environment.
4d	North West and Northern Gauteng rural outskirts with a combined natural, agricultural and rural settlement character (bordering tribal land located to the north).

Environmental Management Framework- Gauteng

- Bioregions
 - Grassland
- Vegetation types
 - Soweto Highveld Grassland
- Gross Economical Contributions



Environmental Impact specialist Identified

Ecology

- No significant impact because the surrounding area was already disturbed by different activities (construction of existing pipelines).
- Emigration of many faunal species
- Presence of alien invasive species.

Mitigation Measures

- The boundaries of the development footprint areas are to be clearly demarcated and it must be ensured that all activities remain within the demarcated footprint area.
- Strict control must be maintained over all activities during construction, in line with an approved Construction EMPr.
- Invasive plant control (mechanical method).

Biodiversity and Conservation Management of CoJ:

- The area is known to have 1374 plant species and (15 species Orange List, 7 Vulnerable 4 critically endangered) = Red Flora species 26.
- Plants-Highest conservation value:



Delosperma purpureum



Cineraria longipes



Eulophia coddii

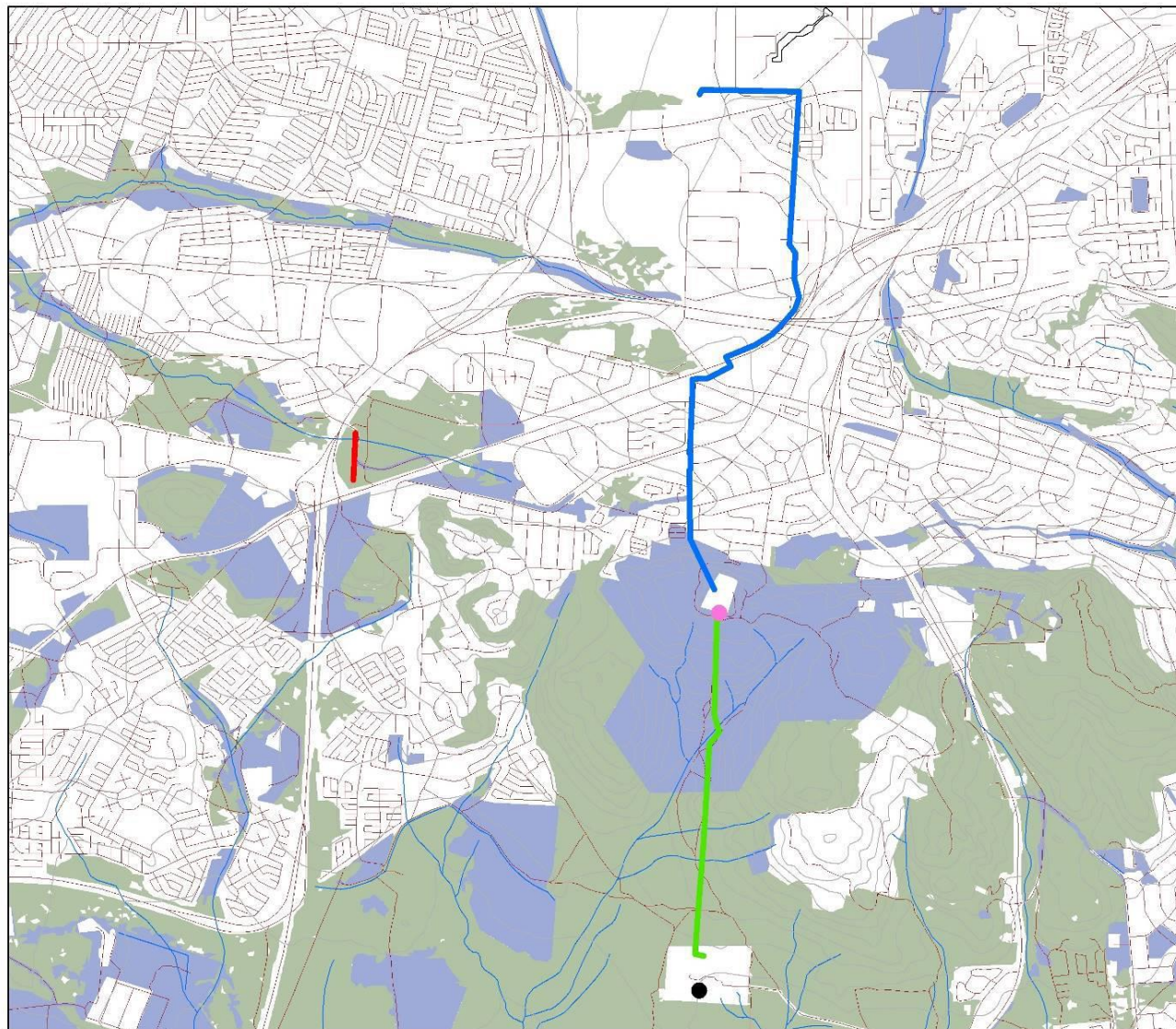


Habenaria mossii

- *Pictures obtained from Google images*

Sensitivities

- The site is situated on :
 - a class 2 ridge
 - Partly on a irreplaceable area
 - Partly on a ecological support area



Legend

- Eikenhof Pump Station
- Meredale Reservoir
- Proposed Pipelines
- 1400mm x 500m Link
- Pipeline
- G38 Pipeline
- Q6 Pipeline

CPlanV3.3

CATEGORY

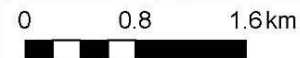
- CBA
- ESA

GAUTENG CONSERVATION PLAN

Scientific Aquatic Services CC
CR Reg. No. 2001/0704/2/23
Vat Reg. No. 432635575
PG 808 782725
Gauteng
2017
Tel: (011) 836 7890
Fax: (011) 835 5046/
006 724 2232
www.gautengconservationplan.co.za



Project No: SAS 216203
Date: SEPTEMBER 2016
Projection: LATLONG
Datum: WGS84





Environmental Impact specialist Identified

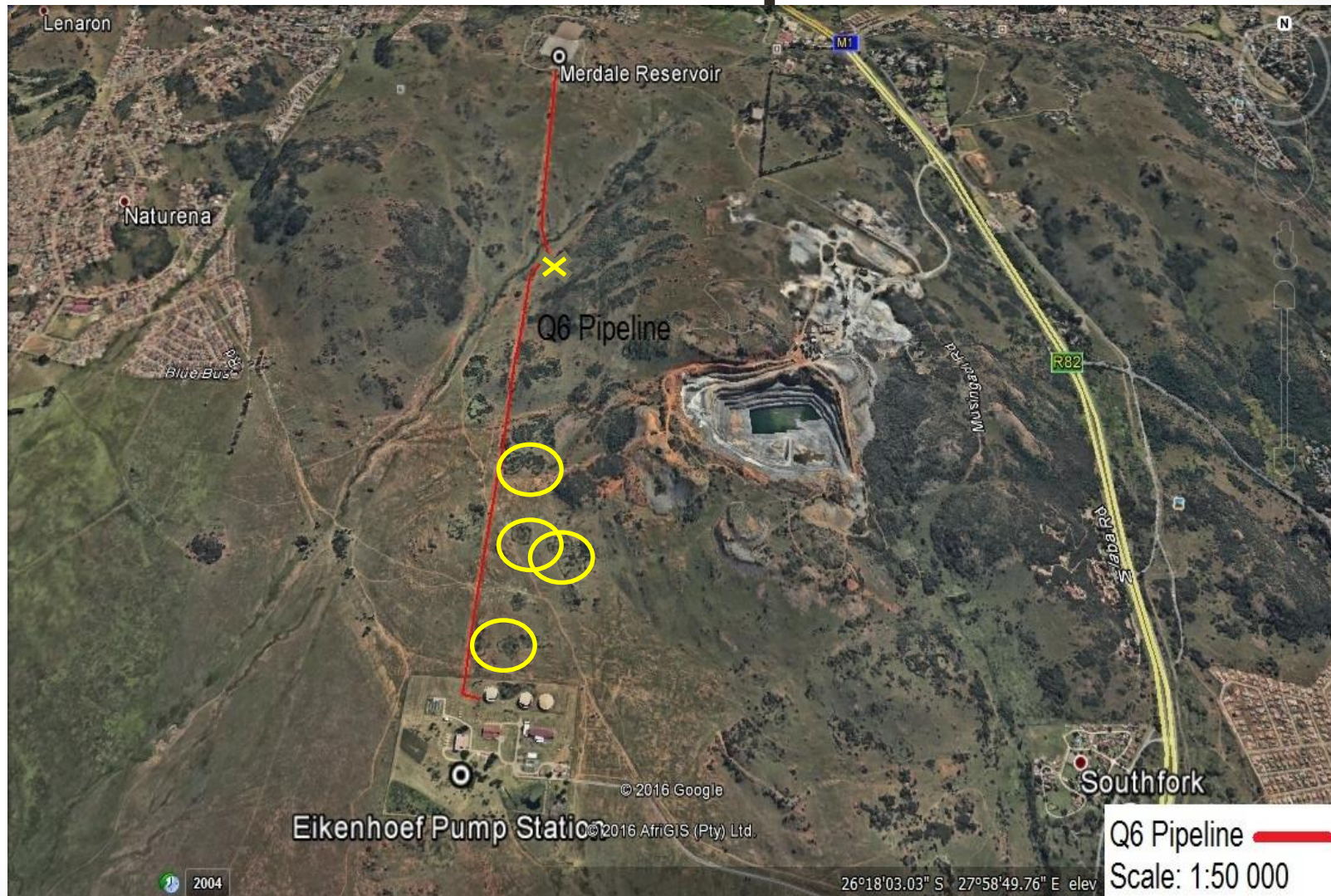
Heritage:

- The heritage resources found on site, especially graves will be impacted and the damage will be irreversible, should the recommendation and mitigation measures not be followed.
- The graves and stone walls identified on site are outside the servitude where the proposed pipeline will be constructed, even so an application with SAHRA will still be made

Mitigation Measures

- During the construction phase, the contractor should keep within the proposed servitude to avoid impacting the heritage resources found on site
- The contractor should induct employees on the importance of heritage resources and sites that they should not be impacted in any way
- Should potential human remains be found on site, the contractor should cease construction immediately and the South African Police Service and the client should also be contacted.

Heritage sensitivity site Map





Environmental Impact specialist Identified

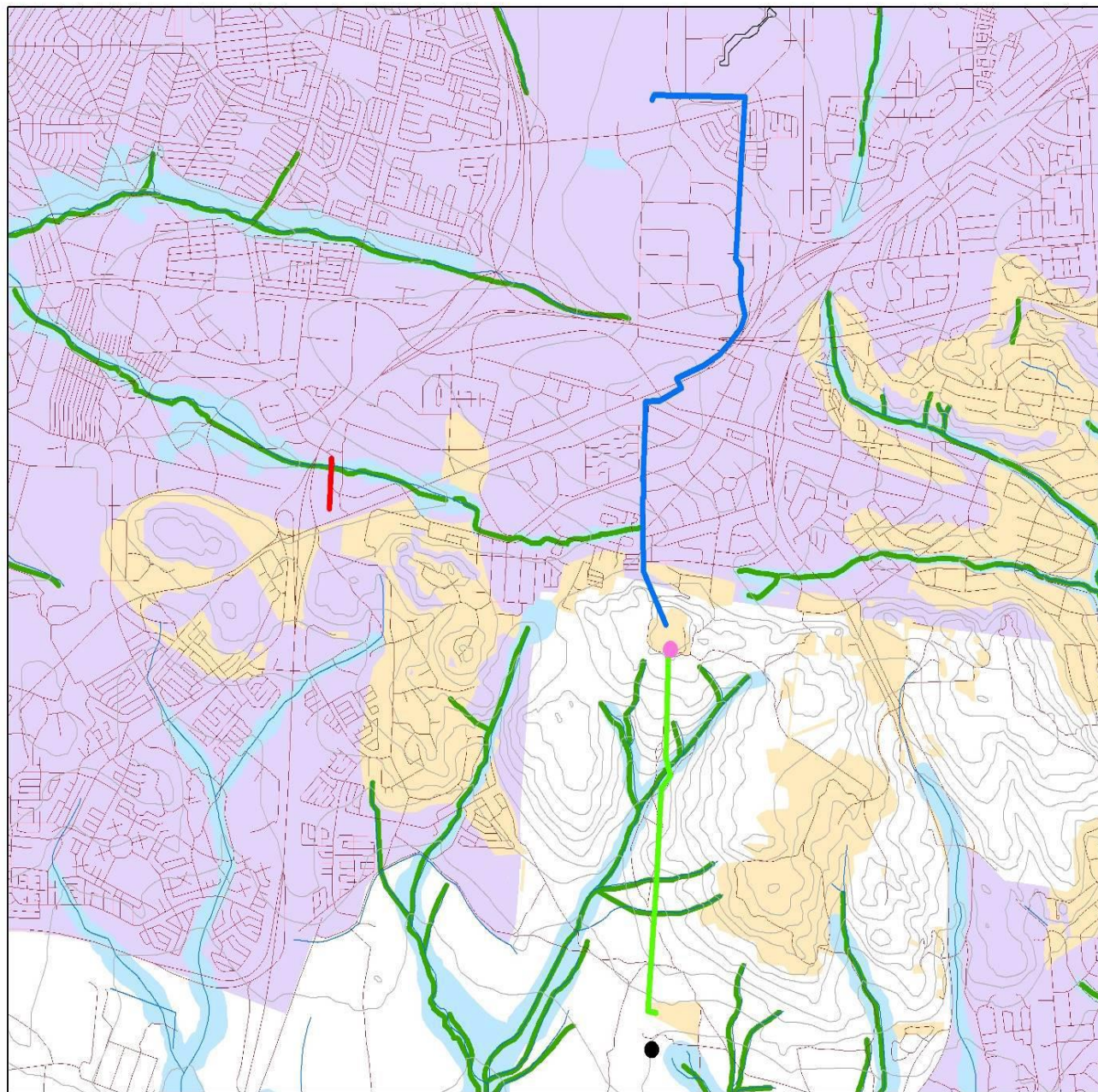
Water Course assessment

Findings of the water course assessment indicate that although the water course have been subjected to disturbances, they are able to provide ecoservices at a moderately low level.

- Sensitivity of these wetlands range from moderate to high and they will have to be protected throughout the development phases in order to prevent further degradation and lowering of their Present Ecological Status (PES).

Mitigation Measures

- All soil stockpiles should be placed outside of the wetland buffer zones, and protected with a suitable geotextile, to avoid sedimentation of the resources during rainfall events;
- As it is absolutely unavoidable that the wetland resources will be affected, it is recommended that the duration of activities within the resources be limited to avoid extensive disturbance of the resources;
- All construction rubble must be cleared immediately and concrete as well as cement may not be allowed to enter the wetland resources.



Legend

- Eikenhof Pump Station
- Meredale Reservoir
- Proposed Pipelines
- 1400mm x 500m Link Pipeline
- G38 Pipeline
- Q6 Pipeline
- River Buffer
- Wetland Buffer
- Ridge Transformed
- Urban Area

GAUTENG CONSERVATION PLAN

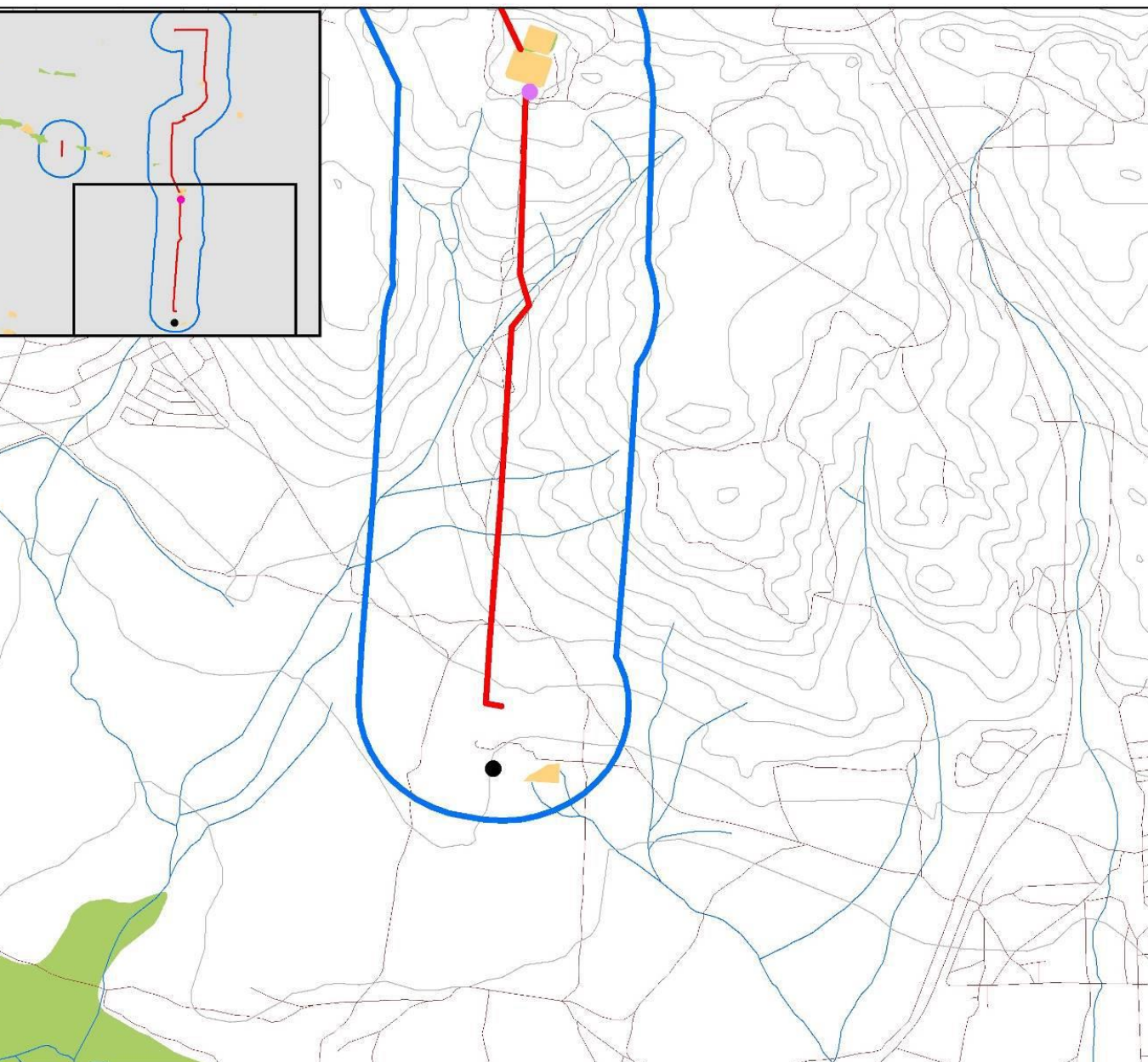
Solentec Aquatic Services CC
CR Reg No: 2001/078543/23
Vet Reg No: 4801332/13
PO BOX 751779
Gauteng
2017
Toll: (011) 816 2956
Fax: (011) 615 0240/
086 724 2132
www.aquaticconservation.co.za



Project No: SAS 216203
Date: SEPTEMBER 2016
Projection: LATLONG
Datum: WGS84

0 0.8 1.6km





Legend

- Eikenhof Pump Station
- Meredale Reservoir
- Q6 Pipeline
- 500m Radius
- NFEPA Wetlands**
- NATART**
- Artificial
- Natural

NFEPA WETLANDS

Scientific Aquatic Services CC
 CR Reg No 2061/07 894/5/21
 Val Reg No: 49202/35273
 PO BOX 751/79
 Sanderson
 2547
 Tel: (011) 416 7944
 Fax: (011) 615 6240/
 086 724 3132
www.aasenvironmental.co.za



Project No: SAS 216203
 Date: SEPTEMBER 2016
 Projection: LATLONG
 Datum: WGS84

0 0.45 0.9km





Environmental Impact specialist Identified

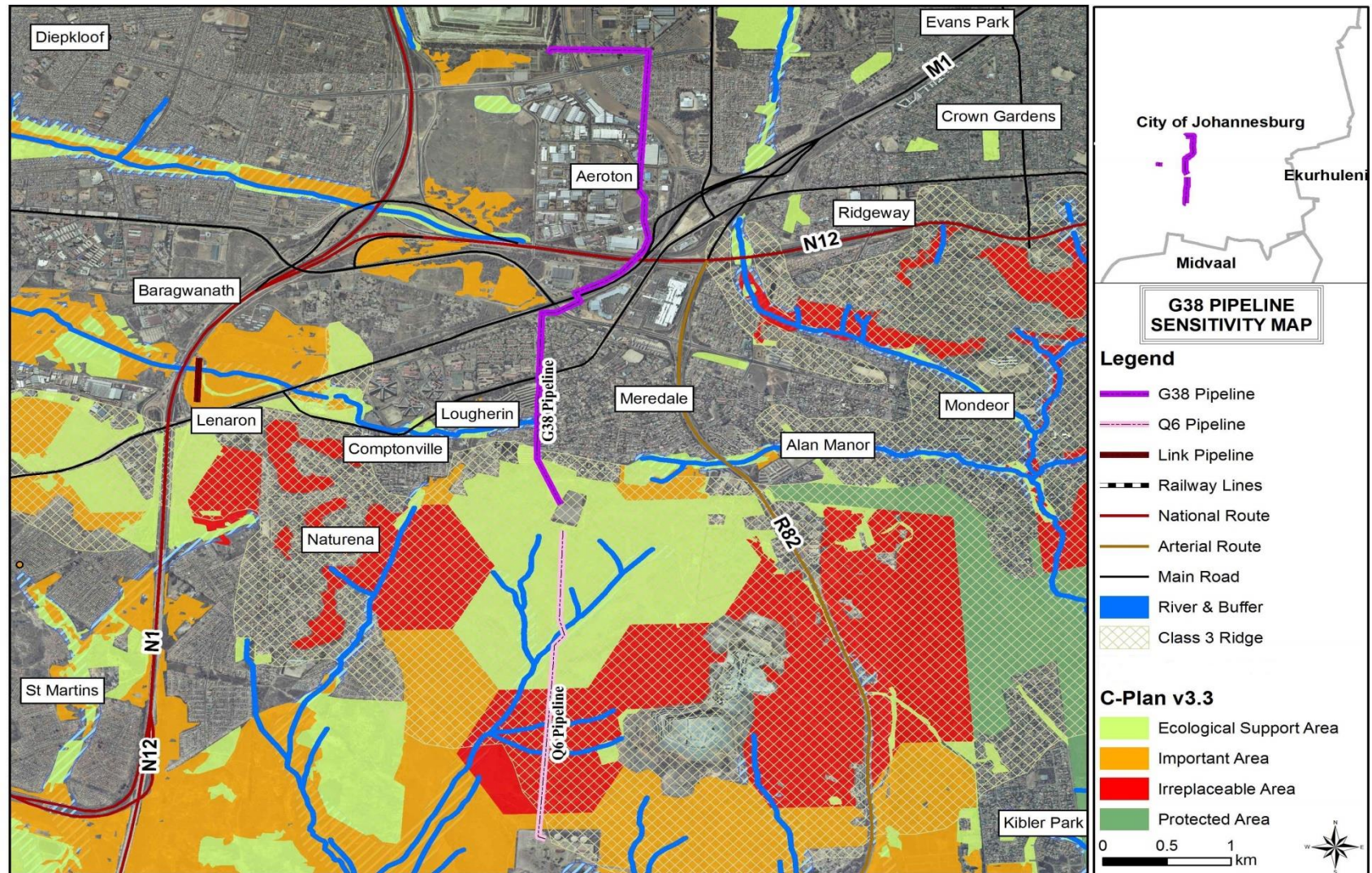
Ridge

- **Ridge** (Class 2: (5-35% transformed) includes parts of Magaliesberg, Klipriviersberg,
- The ridges that enters the river system of the site contains a strikingly unique plant community with a high diversity of indigenous plant species.

Mitigation Measures

- The vegetation cover at the rocky ridges should be managed so that the current vegetation can slow down water runoff and keep loss of soil down to natural levels.

Q6 Pipeline Sensitivity Map



Progress up to date

Activities	Status
Project Initiation (Maanakana & RW)	100%
BID	100%
Site Notice & Advert (IAPs)	100%
Specialist Studies	100%
ONE-ON –ONE Meeting	50%
Public Participation Meeting	50%
Compile of Draft BAR & Annexures	80%
Amendment of EMPr	100%

*Thank
you*

