

NGQAMAKHWE PHASE 3 BULK WATER SUPPLY SCHEME

NATIONAL WEB BASED SCREENING TOOL REPORT FINDINGS AND RESPONSE

INTRODUCTION AND BACKGROUND

The National Web based Environmental Screening Tool is a geographically based web-enabled application which allows a proponent intending to submit an application for environmental authorisation in terms of the Environmental Impact Assessment (EIA) Regulations 2014, as amended to screen their proposed site for any environmental sensitivity.

The Screening Tool also provides site specific EIA process and review information, for example, the Screening Tool may identify if an industrial development zone, minimum information requirement, Environmental Management Framework or bio-regional plan applies to a specific area.

Some of these documents can then be accessed through the Screening Tool via links, for consideration during screening.

Further to this, the Screening Tool identifies related exclusions and/ or specific requirements including specialist studies applicable to the proposed site and/or development, based on the national sector classification and the environmental sensitivity of the site.

Finally, the Screening Tool allows for the generating of a Screening Report referred to in Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2017, as amended whereby a Screening Report is required to accompany any application for Environmental Authorisation and as such the tool has been developed in a manner that is user friendly and no specific software or specialised GIS skills are required to operate this system.

PROPOSED DEVELOPMENT

Indwe Environmental Consulting (Indwe) has been appointed by Sontinga Consulting Services on behalf of Amathole District Municipality (ADM) as the Professional Service Provider (PSP) to conduct an Environmental Impact Assessment in terms of the National Environmental Management Act (NEMA) (Act 107 of 1998) for the proposed Ngqamakhwe Regional Water Supply Scheme Phase 3 in Ngqamakhwe, Amathole District Municipality, Eastern Cape.

It is the intention of the ADM to implement the Ngqamakhwe Regional Water Supply Scheme, Phase 3, to service areas without adequate supply systems in the area. Phase 3 will include the transfer, storage and distribution of water to the Ngqamakhwe Town Centre and 29 villages in Wards 13, 16, 18 and 20 of the Mquma Local Municipality area in the Eastern Cape Province.

Reservoirs and Clear Water Storage

There will be four distribution reservoirs namely Reservoir 2, 5, 9, 14 ranging between 250 and 980kL in capacity. Ten service reservoirs are proposed for Phase 3 ranging between 60 and 175kL in capacity. A total of 48 hours clear water storage for distribution reservoir and 24 hours for services reservoirs is proposed for Phase 3.

Bulk Mains

The clear water gravity main will be sized to cater for a medium to long term demand of 60l/ capita/ day and will include a transmission loss factor of 10%. To regulate pressure difference, break pressure tanks will be installed at strategic points to dissipate residual pressures.

The following table summarises the length and diameter of bulk pipelines anticipated:

Diameter (mm)	Length	Material
50	14810	HDPE
63	1808	UPVC
75	8316	UPVC
90	6860	UPVC
110	5376	UPVC
160	15689	UPVC
200	5943	UPVC

Reticulation and Standpipes

The reticulation shall be designed to deliver 0.17l/s per standpipe. There may be exceptions where this would not be achieved due to local topography. No pipe smaller than 50mm in diameter shall be used for the reticulation.

The standpipes will be spaced in order for each household to be within 200m walking distance from a standpipe. The total number of standpipes to be installed will be 325.

The following table summarised the length and diameter of reticulation anticipated:

Diameter (mm)	Length	Material
50	77055	HDPE
63	18060	HDPE
75	14448	HDPE
90	4816	HDPE
110	3612	HDPE
160	2409	HDPE

The overall Ngqamakhwe Regional Water Supply Scheme, which phase 3 falls under, is a significant infrastructure project, considered a major investment and a priority development initiative, crucial for providing permanent, bulk water to vast rural areas in the Eastern Cape, particularly serving communities in Mnquma Local Municipality, like Butterworth and surrounding villages, addressing severe water challenges.

1. Agricultural Impact Assessment
2. Archaeological and Cultural Heritage Impact Assessment
3. Palaeontology Impact Assessment
4. Terrestrial Biodiversity Impact Assessment
5. Aquatic Biodiversity Impact Assessment
6. Geotechnical Assessment
7. Socio-economic Impact Assessment
8. Plant Species Assessment
9. Animal Species Assessment

The Screening Tool Report notes that ***it is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.***

SPECIALIST ASSESSMENT UNDERTAKEN AS PART OF THE PROJECT

Taking into consideration the environmental sensitivities identified by the Screening Tool, the specialist assessments identified by the Screening Tool, physical site surveys and verifications as well as the current land use, and intended land use (in terms of SPLUMA), the following is noted.

Specialist assessments undertaken as part of the Environmental Impact Assessment Process were as follows:

1. Cultural, Heritage and Archaeological Assessment that addresses the cultural heritage and archaeological theme. Can be found in **Appendix D**.
2. Palaeontological Assessment that addresses the palaeontological theme. **Refer to Appendix D**
3. Aquatic Biodiversity Assessment that addresses the Aquatic Biodiversity theme. **Refer to Appendix D**
4. Terrestrial Biodiversity Assessment Report that addressed the Terrestrial Biodiversity, Plant and Animal Species Theme. **Refer to Appendix D**

In terms of the remaining specialist assessments that were identified by the Screening Tool, the motivations for not undertaking such are as follows:

1. Agricultural Impact Assessment

The routing of the pipeline is along main and minor roads given the existing infrastructure that is already in place. No disruption to cultivated lands is expected. Examples of the roads that the pipelines will be routed:



Engagement with local leaders did not indicate any concern for lands or similar that may be affected.

Based on the above, no agricultural impact assessment was undertaken.

2. Socio-economic Impact Assessment

Given that no specific assessment protocol has been prescribed, it is accepted that a site sensitivity verification will suffice.

In Amathole District Municipality's (ADM) Draft Integrated Development Plan (2026 – 2027), it is recognized that access to potable water is a basic human right. ADM undertook a comprehensive backlog verification in the 2021/2022 financial year to assess the true extent of service delivery challenges. The following were areas of concern needing intervention:

- *Water and Sanitation Service Quality (45%)*
- *Water Resource Management (44%)*

ADM still faces a water backlog of 32.62%, meaning 78,815 households remain without reliable access to safe water or are served below the Reconstruction and Development Programme (RDP) standard. It is also noted in terms of Key Performance Area 1 – Service Delivery and Infrastructure Development, 2025/2026 objectives include providing safe adequate infrastructure and safe drinking water to all communities by 2027. This is to occur through the implementation of the water services development plan (WSDP).

Additionally, in Mquma Local Municipality's IDP, in 2022, Mquma Local Municipality had a total number of 7 710 (10.81%) households with no formal piped water. Again, this emphasizes the need for development of infrastructure to provide communities with safe drinking water. Therefore, the Ngqamakhwe Bulk Water Supply Scheme will assist in the provision of potable water to the Ngqamakhwe town centre and 29 villages of Wards 13, 16, 18 and 20, ultimately servicing approximately 20 000 residents.

The project meets service delivery expectations and objectives that any local municipality is required to provide.

In addition to the above, during the construction it is likely that employment opportunities will be made. The socio-economic impact is mostly positive.

Based on the above, no socio-economic impact specialist assessment was undertaken.