

PROPOSED NGQAMAKHWE PHASE 3 WATER SUPPLY SCHEME IN THE AMATHOLE DISTRICT MUNICIPALITY, EASTERN CAPE

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS

Background Information Document

INTRODUCTION

Indwe Environmental Consulting have been appointed by Sontinga Consulting through Amathole District Municipality (ADM), the Water Services Provider (WSP), to undertake the environmental application process for the Ngqamakhwe Phase 3 Water Supply Scheme project. The project falls within the Ngqamakhwe region of the Mquma Local Municipality within the Amathole District Municipality in the Eastern Cape Province.

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.

The proposed development involves the implementation of a regional water supply scheme to supply potable water to the Greater Ngqamakhwe area. Several options for providing water to the area have been considered and include the following:

- Surface water from Tsomo River
- Groundwater from existing boreholes
- Delay water supply until the implementation of the full Ngqamakhwe Regional Water Supply Scheme (RWSS)

Identified listed activities that are potential triggers:

- LN1, GNR 327, 7 April 2017, Activity 19
- LN3, GNR 324, 7 April 2017, Activity 2
- LN3, GNR 324, 7 April 2017, Activity 12

An application to the Department of Water and Sanitation (DWS) for General Authorisation relating to section 21 (c) & (i) water uses is also anticipated to be required as part of the project and Indwe will undertake such on behalf of the Proponent.

***Descriptions to the activities are provided further on in the document.*

This document is intended to provide background information to stakeholders, authorities and other interested and affected parties and forms a key component of the public participation process being undertaken as part of the Environmental Impact Assessment process as well as the Water Use application process.

PROJECT LOCATION

It is the intention of the ADM to implement the Ngqamakhwe 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. See the below maps for an indication of the layout of the project.

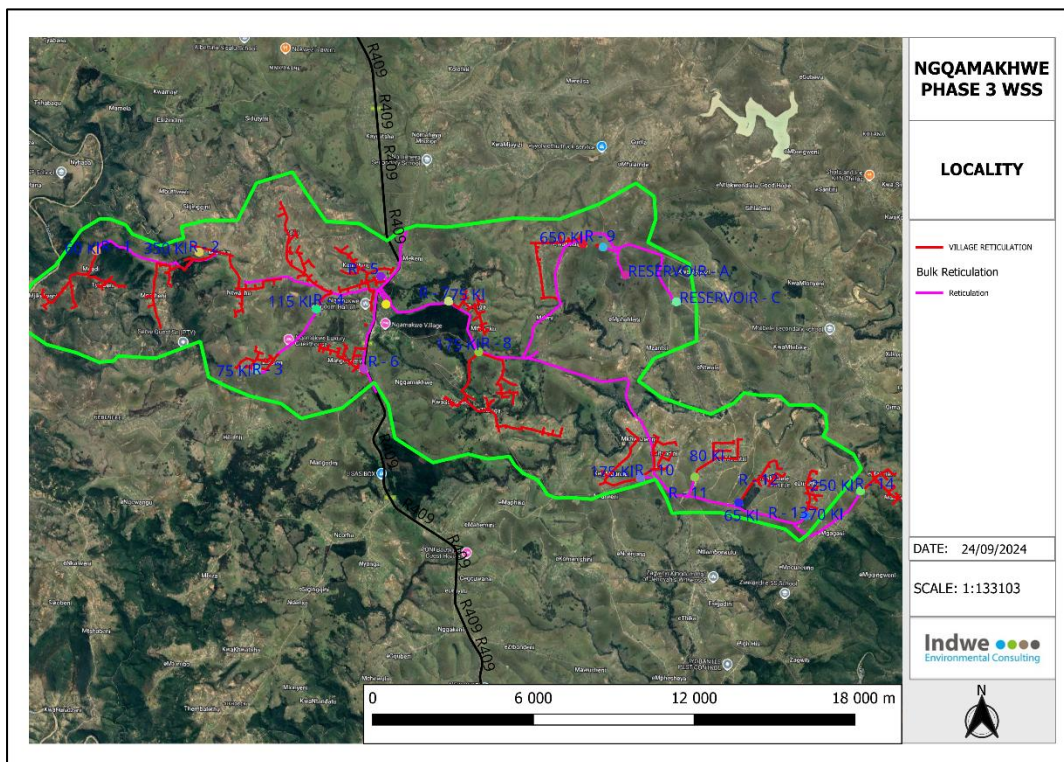


Figure 1: A view of the project layout for the proposed Ngqamakhwe Phase 3 Project.

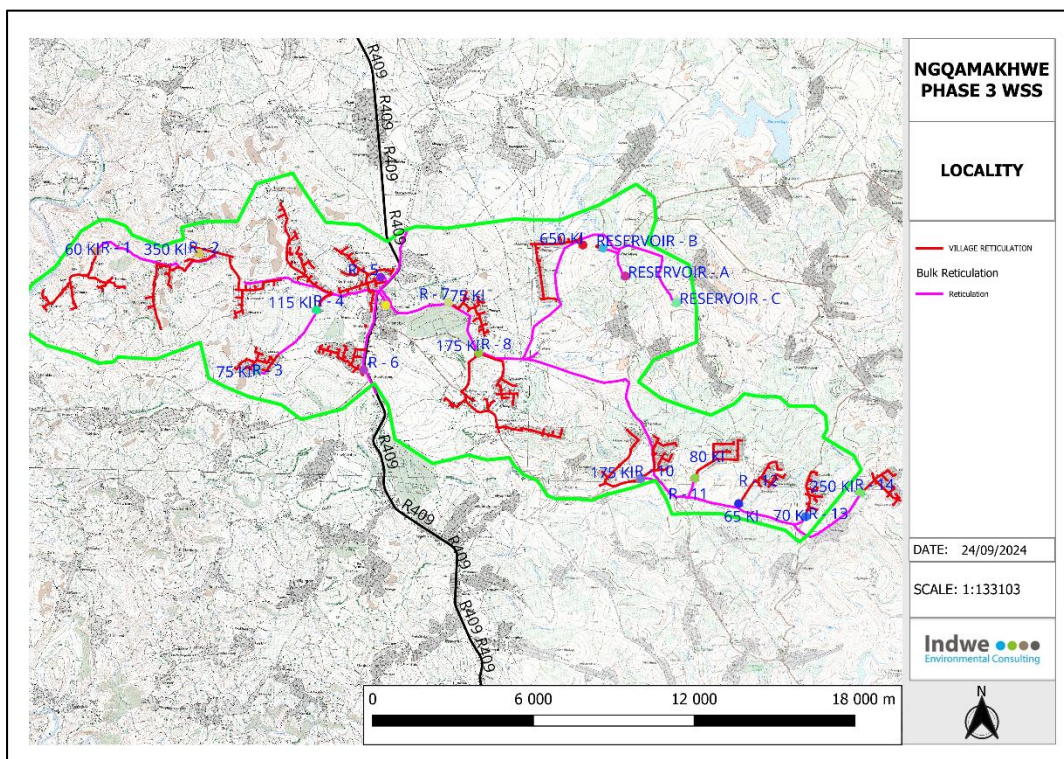


Figure 2: A topographical view of the project layout for the proposed Ngqamakhwe Phase 3 Project.

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

EIA REQUIREMENTS

The EIA Regulations promulgated in Gazette No 40772 of 7 April 2017- NEMA Section 24(5) stipulates that “listed activities” require environmental authorisation via a Basic Assessment process should the activities trigger Listing Notices 1 & 3. The following listed activities are assumed to be triggered in relation to this project:

Listing Number and Activity No.	Listed Activity	Development Activity
LN1, GNR 327, 7 April 2017, Activity 19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from- (i) a watercourse.	The project will entail excavation for the pipeline channel which is within a watercourse. During the excavation process, in excess of 10 cubic metres of soil will be excavated from the watercourse.
LN3, GNR 324, 7 April 2017, Activity 2	The development of reservoirs, for bulk water supply, excluding dams, with a capacity of more than 250 cubic metres. Eastern Cape: ii) Outside urban areas in: dd) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans	The project will include the construction of 4 distribution reservoirs of 250- 980kL each.
LN3, GNR 324, 7 April 2017, Activity 12	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. Eastern Cape: i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii) Within critical biodiversity areas identified in bioregional plans	The project includes the installation of approximately 30km of pumping mains, and 120km of village reticulation. It is anticipated that at least 300 square metres of indigenous vegetation will need to be cleared to accommodate the infrastructure. The area falls within the Mthatha Moist Grassland vegetation unit which is listed as “Critically Endangered” in the National Environmental Management: Biodiversity Act, 2004 (Act no 10 of 2004): National List of Threatened Ecosystems. The site falls within CBA 1 and 2 areas as well as areas with no CBA category.

BASIC ASSESSMENT PROCESS

The Basic Assessment process will involve the following project phases:

1. **Pre-Application:** This phase includes consultation with Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), OR Tambo Region regarding the proposed development, potential triggers, outcome of the National Web Based Screening Tool Report for the site and the way forward in terms of the applicable EIA process.
2. **Application:** An **Application for Environmental Authorisation** form will be submitted to the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), Amathole Region.
3. **Draft Basic Assessment Phase:** The Basic Assessment process is followed which includes the undertaking of a public participation process including consultation with key stakeholders, detailed site investigations, planning and reporting. Specialist input will be sought for this phase of the project. This phase will culminate in the production of a Draft Basic Assessment Report and Environmental Management Plan (EMP) which will be submitted to DEDEAT and then circulated to all registered Interested and Affected Parties (I&APs) and key stakeholders for a 30 day comment period.
4. **Final Basic Assessment Phase:** Following the receipt of comments, the Basic Assessment Report will be finalised and submitted to DEDEAT for their assessment and issuing of an authorisation decision.
5. **Appeal Period:** After receipt of the Environmental Authorisation all registered I&APs and key stakeholders will be notified of its availability and provided with the opportunity and details for submitting an appeal to the decision if required.

PUBLIC PARTICIPATION PROCESS

The public participation process is defined under Regulation No 41 of the 2014 EIA Regulations, as amended in 2017.

- Advertising in the local newspaper.
- Fixing a notice board at the site.
- Giving written notice to the occupiers of the site, the owner/ person in control of the site, adjacent landowners via BID drop, the municipal ward councillor and rate payers, the relevant municipality and any organ of state that has jurisdiction in respect of any aspect of the activity.
- Maintaining an Interested and Affected Party Register.
- Uploading pertinent documentation on the Indwe website.
- Collecting comment on the project, in particular the draft Basic Assessment Report.

Registered Interested and Affected Parties will be given the opportunity to review and comment on the Draft Basic Assessment Report over a 30-day period. All comments raised by I&APs will be included and responded to in the final reports which will be submitted to the competent authority (DEDEAT) to enable them to make an informed decision with regard to the development proposal.

Once an Environmental Authorisation is received, it will be distributed to registered I&APs who may appeal to the Minister or MEC of Environmental Affairs in opposition to the decision.

This document and Public Participation Process aims to do the following:

- Present stakeholders and I&APs with an overview of the perceived biophysical and social impacts that have been identified up to date.
- To obtain issues and concerns from I&AP's regarding the General Authorisation application process and proposed activity, which will be addressed for the planning, establishment and operational phase of the proposed operations.
- To give all potential interested and affected parties the opportunity to register and be placed on the register of I&APs in order for them to voice their opinions and concerns.

Potential interested and affected parties include:

- Occupants of the site, and where the occupants are not the owners, also to the owners of the site, or the owner of any alternative site where the activity is to be undertaken.
- Owners, persons in control of land or occupants of adjacent properties
- Municipal councillor and municipality
- Any organ of state having jurisdiction in respect of the activity
- Any other party as required by the competent authority

KEY ISSUES AND TYPICAL IMPACTS

Key issues and typical environmental impacts associated with the project identified to date include:

- Impacts to the watercourse (loss of riparian habitat, increased turbidity, impact on aquatic biota)
- Development according to the proposed land use
- Potential employment opportunities during the construction phase
- Temporary dust emissions and spoil material during the construction phase
- Potential employment opportunities during the operation phase
- Skills development for staff during the operation phase
- Waste disposal and management during construction phase
- Loss of indigenous vegetation during construction phase.

WATER USE APPLICATION PROCESS

In terms of the National Water Act (Act 36 of 1998) an application for a General Authorisation will be submitted to DWS for the following water uses: Section 21 (c) and (i) to develop and construct components of the proposed Toyota Dealership **within the regulated area of a watercourse**.

The National Water Act (Act 36 of 1998) in terms of Section 21 includes:

- Section 21(c) and (i) – Impeding or diverting the flow of water in a watercourse / and altering the bed, banks or characteristics of a watercourse.

Specialist Studies to be conducted:

- Aquatic Impact Assessment, Wetland Delineation and Risk Assessment

HERITAGE MANAGEMENT PROCESS

The National Heritage Resources Act (NHRA) 1999, Section 38 Subject to the provisions of subsections 7), 8) and 9), states that any person who intends to undertake a development categorized as –

- The construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;**
- The construction of a bridge or similar structure exceeding 50m in length;
- Any development or other activity which will change the character of a site –
 - Exceeding 5,000m² in extent; or
 - Involving three or more existing erven or subdivisions thereof; or
 - Involving three or more erven or subdivisions thereof which have been consolidated within the past five years; or
 - The costs which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- The rezoning of a site exceeding 10,000m² in extent;
- 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.

The South African Heritage Resources Agency (SAHRA) is mandated with the management of all South Africa's heritage resources, as described in and protected by the National Heritage Resources Act, Act No. 25 of 1999 (NHRA 1999). The **Eastern Cape Provincial Heritage Resources Authority (ECPHRA)** is established in terms of the NHRA 1999, Section 23 and is responsible for the management of the heritage resources of the Eastern Cape Province. The ECPHRA Archaeology, Palaeontology and Meteorites (APM) Unit manages the NHRA 1999, Section 38 heritage management process for planned developments located in (or aspects of developments located in) the province, either as consenting authority (where no environmental process is required), or as commenting agent to the consenting authority (where an environmental process is required).

Given that the project site triggers Section 38(1)(a), Indwe Environmental Consulting will submit the required Notification of Intention to Develop form to ECPHRA for decision regarding whether or not the development is exempted from the Heritage Impact Assessment process or if it will be subject to a Heritage Impact Assessment Process.

Should the development proposal require a HIA process this would comprise of both a Archaeological and Cultural Heritage Impact Assessment (AIA) and Palaeontological Impact Assessment (PIA) process.

DETAILS OF THE EAP CONDUCTING THE BASIC ASSESSMENT

Indwe Environmental Consulting CC is a registered environmental consultancy that specialises in all facets of environmental management. Our focus is on project based environmental studies. Broadly the services offered are Basic Assessments, Full Environmental Impact Assessments, Rectification of Non-Compliance Activities and Applications, Strategic Environmental studies (State of the Environment Reporting, Strategic Environmental Assessments, Environmental Management Frameworks) and integrated waste management planning.

The Indwe Environmental Consulting team is headed up and overseen by Brendon Steytler and Megan Hugo. Together they have a vast amount of experience in the environmental consulting industry of South Africa. Brendon Steytler was the founding member of Indwe Environmental Consulting in 2010 and has been instrumental in growing the company into the trusted and quality driven organisation that it is today.

Responsible Environmental Assessment Practitioner

Megan Hugo

Megan started working as an environmental consultant in February 2015 following the completion of her Honours degree in Environmental Science at Rhodes University. Prior to this she completed a Bachelor of Science degree, also at Rhodes University, with Zoology and Environmental Science as her majors. Megan has completed accredited courses in environmental impact assessments and ISO 14001 courses.

Megan joined Indwe Environmental Consulting in September 2017 and was made a main member of the company in April 2018. Megan is a Registered Environmental Assessment Practitioner with the Environmental Assessment Practitioners Association of South Africa (EAPASA) (Reg. No 2019/1530). She is also registered with the South African Council for Natural Scientific Professions (Reg. No. 118810) and an active paid-up member of the International Association of Impact Assessment (IAIA) South Africa.

Megan is responsible for all company related operations and financial management as well as acquiring new projects at Indwe Environmental Consulting. Megan has gained experience in all aspects of Integrated Environmental Management (Full Scoping and Environmental Impact Assessments, Basic Assessments, Mining Permitting, Auditing, Strategic Environmental Planning), Ecological Reporting, Water Use related approvals through DWS, and General Project Management. Additionally, Megan is well versed in permitting requirements relating to ToPS, PNCO and NFA legislation.

Example of fields in which Megan was the project manager and lead report writer include large public infrastructure projects (e.g. Regional Water Supply Schemes, Overhead Powerlines, National Road upgrades), private commercial and residential developments, small and large agricultural projects, mixed use developments, renewable energy projects, large scale public and private in stream and off stream storage dams and rehabilitation of coastal and terrestrial related environments.

Megan's key skills include her knowledge and experience in South African policy and legislation relating to development, particularly in the Eastern Cape province. Her 10 year presence in the industry has provided much insight and experience into project, technical and financial management.

Project Team

Kevin Bickell

Kevin Bickell joined Indwe Environmental Consulting in April 2022 following the completion of his undergraduate degree in Environmental Management from the University of South Africa (UNISA). Kevin has since completed his Honours Degree in Environmental Management and is enrolled at UNISA currently to complete his Masters Degree. His post graduate studies have focused on research surrounding the extent of environmental degradation caused by illegal sand mining activities along the Wild Coast with particular focus on the Qora and Qolorha Mouth areas.

Kevin has strong GIS and technical skills and is responsible for collecting, sorting and analysing data to transfer into mapping, reporting and presentations. He has gained significant experience in the process of integrated environmental management and has been significantly involved in the EIA processes and projects the company is responsible for. Kevin is also responsible as acting as an Environmental Control Officer on the current construction sites where Indwe is appointed to monitor compliance with the various environmental approvals relating to a project. Kevin has gained experience in projects relating to bulk infrastructure, residential developments, mixed use developments, renewable energy and rehabilitation related projects.

Kevin is registered with EAPASA (Reg. No. 2022/5288) as a Candidate EAP, practicing under the Mentorship of Megan Hugo, and is also registered with SACNASP (Reg. No. 154317).

Michaela Manthe

Michaela completed her 6-month internship with Indwe Environmental Consulting in 2024 and has accepted a permanent position at the company as Junior Environmental Assessment Practitioner from September 2024. Michaela has completed her Honours degree in Life Sciences through UNISA in 2023. Prior to this she completed her Bachelor of Science degree in Life Sciences majoring in Zoology and Botany in 2022. Michaela is registered as a Candidate Natural Scientist with the South African Council for Natural Scientific Professions (Cand. Sci. Nat 161580) and as a Candidate EAP (Reg. No. 2022/5666) with EAPASA.

During her internship, she assisted and participated in various construction monitoring and EIA related activities. She has compiled various environmental audits for private commercial developments and has been responsible for internal project activities and specialist engagement.

Michaela's academic background has provided her with the skills to compile professional and scientific reports. Michaela has also been gaining experience in the DWS e-wulaas portal and is responsible for uploading water use application forms and engaging with DWS on select open water use applications.

YOUR OPPORTUNITY TO GET INVOLVED

Should you wish to express your views regarding this proposed development, please feel free to register as an I&AP by sending us your written comments. Please submit your name, contact information and written comments to the contact person below. A written comments form is supplied at the back end of this notice for your convenience.

Contact

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Name	
Organisation	
Telephone Number	
Physical Address	
Postal Address	
Fax Number	
Email Address	

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