

CEN INTEGRATED ENVIRONMENTAL MANAGEMENT UNIT



Environmental and Rural Development Specialist

NOTICE OF PUBLIC PARTICIPATION PROCESS

BACKGROUND INFORMATION DOCUMENT

Proposed wastewater treatment works (WWTW) at Elliotdale, Mbhashe Local Municipality, Amathole District of the Eastern Cape Province

PURPOSE OF THE BACKGROUND INFORMATION DOCUMENT

Amathole District Municipality is proposing to develop a wastewater treatment works (WWTW) at Elliotdale, located in the Mbhashe Local Municipality, Amathole District of the Eastern Cape Province. There is currently no municipal sewage system in the town.

Amathole District Municipality has appointed GG&G Consulting Engineers to design a complete waterborne sewerages system and wastewater treatment works (WWTW) to serve the town of Elliotdale. Investigations have determined an estimated 1.2Ml/d flow emanating from the targeted project area and a WWTW has been designed to manage this load. The project will involve connecting all existing houses, business centres etc within the urban edge to the new WWTW and the decommissioning of all existing septic / conservancy tanks.

The following is required before the project may commence:

- Environmental authorisation (EA) in terms of the NEMA 2014 EIA Regulations (as amended, 2017)
- Waste management license (WML) in terms of Regulation 921 of the National Environmental Management: Waste Act (Act 59 of 2008) (NEMWA) (to be confirmed)
- Water Use License Authorisation (WULA) from the Department of Water and Sanitation (DWS) in terms of Section 21 of the National Water Act, 1998 (Act No. 36 of 1998)

The purpose of the environmental assessment is to identify potential impacts associated with the proposed project and to recommend measures to avoid or reduce adverse impacts and enhance beneficial or positive impacts.

If you would like to participate in the process, please register yourself and/or your organization as an Interested and Affected Party. Submit issues that you feel need to be addressed in the assessment by email to:

Claire de Jongh (EAPASA registration: 2021/3519)

claire@environmentcen.co.za

Registration and initial comments are requested to be submitted within 30 days of the date of this notice.

Registration and initial comments: 31 October – 2 December 2024

1. THE PROPOSED PROJECT

1.1. Location

Elliotdale is a town located in the **Mbhashe Local Municipality**, which is **situated in the Amathole District of the Eastern Cape Province, South Africa**. The town of Elliotdale is situated in the former Transkei approximately 70.9km from the town of Idutywa, 50 km south of Mthatha and 22 km south-east of Mqanduli. The town is accessed by a tarred road off the N2 National Road. The approximate central coordinates of the proposed location of the WWTW: 31°58'44.66"S; 28°41'12.77"E



Figure 1: Google earth image showing approximate location of proposed 1.2 ML/ day WWTW.

1.2. Need and Desirability

There is presently no municipal sewage system in Elliotdale; the existing method of sewage disposal is by septic / conservancy tanks evacuation by tanker. Final disposal is by discharging tanker effluent into the Butterworth wastewater treatment works.

1.3. Design and Layout

The Amathole District Municipality has appointed GG&G Consulting Engineers to design a complete waterborne sewerages system and wastewater treatment works (WWTW) to serve the town. The project will involve connecting all existing houses, business centres etc within the urban edge to the new sewerage system and the decommissioning of all existing septic / conservancy tanks. Investigations have determined an estimated 1.2MI/d flow emanating from the targeted project area and a WWTW has been designed to manage this load. An options analysis for the type of WWTW was done and a trickling filter system was selected. This technology and the site-specific design minimizes heavy dependence on energy by utilizing the available hydraulic head to rotate the trickling filter.

The proposed sewage reticulation system will combine gravitational and pumping (low-lying areas); three pump stations will be required.

Summary of flows entering the outfall sewer at the WwTW is summarised in Table 1 below.

Table 1: Bulk Collector Flows

Drainage Zone	ADWF (kℓ/d)	PDWF (ℓ/s)	PWWF (ℓ/s)
Gravity Areas	675	22,5	45,0
Pumped Areas Inflow	265	-	-
Pumped Areas Outflow	-	22,8	22,8
TOTAL	940	45,3	67,8

The proposed WWTW will entail:

Head of works

- Tanker dump
- Inlet works (coarse screen, fine screen, degritting, flume)
- Division box
- Two x Facultative pond (974 m³ / 1001m³)
- Oxidation pond (1688m³ / 1 meter depth)
- Recycle pump station

Main Treatment

- Oxidation Reactor (125m³)
- Trickling filter (63mm stone; 4 meters high)
- Division Box

Secondary treatment

- Two x Humus Tank (clarifier; 8.5 m)
- Waste division box

Tertiary treatment

- Chlorine contact tank
- Two x Reed Bed

Sludge handling

- Sludge drying beds
- Sludge lagoon
- Supernatant return pump station

For sludge handling the humus waste and PST underflow will gravity feed to sludge lagoons. The design of the sludge lagoons allows for anaerobic treatment as well as the mechanised removal of the dried sludge. A total area of proximately 920 m² will be required. The supernatant flow will gravity feed into the recirculation pump station sump. The sludge lagoons will be designed to have a shallow slope with access to allow for mechanised cleaning every three months. In order to limit the risk of odour the humus underflow will be discharged across the surface to create a surface flow. Dried sludge will be sent to an approved land disposal site. The possibility of constructing a composting facility may also need to be considered by the municipality.

Preliminary calculations have been made for the estimated amount of sludge expected to be generated:

Flow Ml/day	1.2 MI / day
Humus sludge production	160kg DS/day

Primary Settling	360 kg DS/day
Reduction through digestion (50%)	180kg DS/day
Total DS sludge expected to be generated	340 kg DS / day
Dry solids %	1,05 SG (assumed)
Composting (10%)	3.24m3 sludge / day
Cart away (15%)	2.16m2 sludge / day
Expected DS% for > 7 day drying (40%)	0.18m3 sludge / day

1.4. Overview of Environment

The following is based on a review of available desktop environmental information:

- In terms of the National Vegetation Map (2019) the mapped vegetation of the entire project site is Bisho Thornveld, falling within the Savanna biome and sub-escarpment Savanna bioregion. The ecosystem status Bisho Thornveld is *Least Threatened* (NBA, 2011); protection status: not protected.
- Certain project components will fall within 100 m of the Xora River (FEPA River)
- The proposed project site is located within the Mzimvubu-Tsitsikamma Water Management Area within the Mbhashe subwater management area. The project area falls within the T80C quaternary catchment area.
- In terms of the Eastern Cape Biodiversity Conservation Plan (ECBCP, 2019) the project site falls within terrestrial ESA 1 and ESA 2.
- In terms of the ECBCP, the project site is located within an aquatic ESA 1

1.5. Legal Environmental Requirements

1.5.1. Water Use authorisation in terms of the National Water Act (Act 36 of 1998)

Certain thresholds will need to be confirmed, however, considering the nature of the project, the following is deemed to be required:

An integrated Water Use License (WUL) for the proposed WWTW is required for the following water uses:

- Section 21(c) of the Act: Impeding or diverting the flow of water in a watercourse.
- Section 21(i) of the Act: Altering the bed, banks, course, or characteristics of a watercourse.
- Section 21(f) of the Act: Discharging waste or water containing waste into a water resource.
- Section 21 (g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource.

1.5.2. Environmental Authorisation for activities in the EIA regulations published in terms of the National Environmental Management Act (Act 107 of 1998)

The NEMA EIA Regulations set out a list of identified activities that may not commence without environmental authorisation from the competent authority. Certain thresholds would need to be confirmed, but it would appear that the project is likely to include activities listed under Listing Notice 1 (GN R. 327)

Table 2: Activities requiring environmental authorisation

NEMA EIA Listed activity	Relevance to project
--------------------------	----------------------

<p>GNR. 324 -Activity 14</p> <p>The development of</p> <p>(ii) infrastructure or structures with a physical footprint of 10 square metres or more;</p> <p>where such development occurs—</p> <p>(a) within a watercourse;</p> <p>(c) if no development setback has been adopted, within 32 m of a watercourse measured from the edge of the watercourse</p>	<p>Note: will be triggered by pipelines and pump stations within 32 m of watercourse</p>
<p>GNR. 327 - Activity 10</p> <p>The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes –</p> <p>(i) with an internal diameter of 0,36 metres or more; or</p> <p>(ii) with a peak throughput of 120 litres per second or more;</p> <p>excluding where—</p> <p>(a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or</p> <p>(b) where such development will occur within an urban area.</p>	<p>Note: will not be triggered; within urban edge and internal diameter (max) is 315mm; peak throughput is not 120 liters per second or more.</p>
<p>GNR. 324 -Activity 14</p> <p>The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.</p>	<p>Note: Will not be triggered; capacity is 1.2 MI (1200 cubic meters)</p>
<p>GNR. 327 - Activity 27</p> <p>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—</p> <p>(i) the undertaking of a linear activity; or</p> <p>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>Note: will be triggered; estimated footprint of WWTW is 2.5 ha</p> <p>Estimated pump stations: 1500m² per pump station</p>

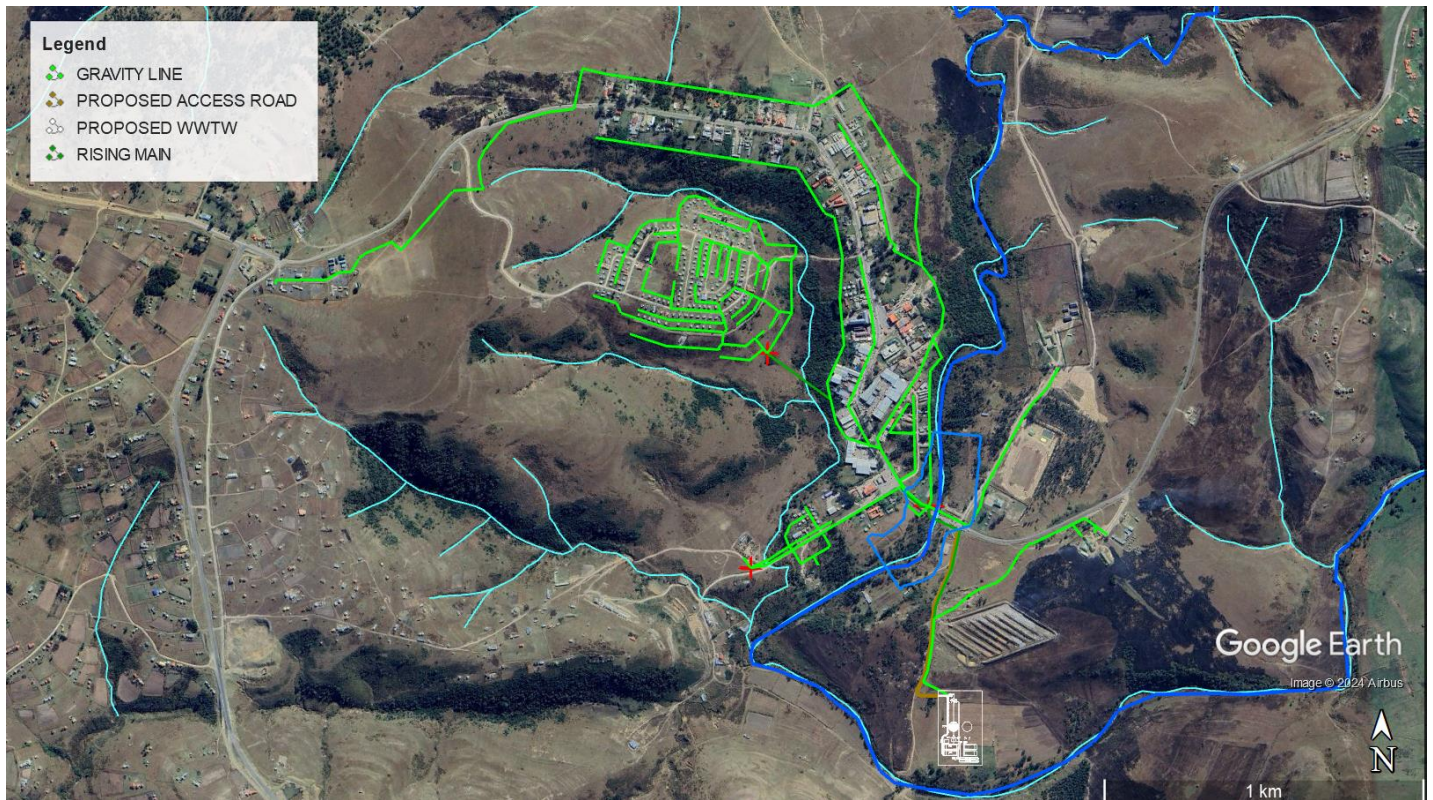


Figure 2: Planned infrastructure; Xora River and drainage lines shown in blue

1.5.3. Waste management license for waste management activities, GN 921, 2013 (as amended) published in terms of the National Environmental Management: Waste Act (Act 59 of 2008) (NEMWA)

A waste management license may be required for Waste management activities, GN 921, 2013 (as amended) published in terms of the National Environmental Management: Waste Act (Act 59 of 2008) (NEMWA). This needs to be confirmed with the DFFE.

Waste management activities, GN 921, 2013 (as amended)	WML Required
Category A	
Storage of waste	
(2) The storage of general waste in lagoons.	Sludge lagoon
Recycling or recovery of waste	
(3) The recycling of general waste at a facility that has an operational area in excess of 500 m ² , excluding recycling that takes place as an integral part of an internal manufacturing process within the same premises.	No
(4) The recycling of hazardous waste in excess of 500 kg but less than 1 ton per day calculated as a monthly average, excluding recycling that takes place as an integral part of an internal manufacturing process within the same premises.	No
(5) The recovery of waste including the refining, utilisation, or co-processing of waste in excess of 10 tons but less than 100 tons of general waste per day or in <u>excess of 500 kg but less than 1 ton of hazardous waste per day</u> , excluding recovery that takes place as an integral part of an internal manufacturing process within the same premises.	No
Treatment of waste	
(6) The treatment of general waste using any form of treatment at a facility that has the capacity to process in <u>excess of 10 tons but less than 100 tons</u> per day calculated as a monthly average, excluding the treatment of organic waste using composting and any other organic waste treatment.	No
(7) The treatment of hazardous waste using any form of treatment at a facility that has the capacity to process in excess of 500 kg but less than 1 ton per day calculated as a	No 340 kg DS sludge / day

monthly average, <u>excluding the treatment of effluent, wastewater, sewage or organic waste using composting or any other organic waste treatment.</u>	WWTW excluded
(9) The disposal of inert waste to land in excess of 25 tons but not exceeding 25 000 tons, excluding the disposal of such waste for the purposes of levelling and building which has been authorised by or under other legislation.	No
(10) The disposal of general waste to land covering an area of more than 50 m but less than 200 m and with a total capacity not exceeding 25 000 tons.	No
(11) The disposal of domestic waste generated on premises in areas not serviced by the municipal service where the waste disposed exceeds 500 kg per month. Construction, expansion or decommissioning of facilities and associated structures and infrastructure	No
(12) The construction of a facility for a waste management activity listed in Category A of this Schedule (not in isolation to associated waste management activity).	Possible – sludge lagoons
(13) The expansion of a waste management activity listed in Category A or B of this Schedule which does not trigger an additional waste management activity in terms of this Schedule.	
(14) The decommissioning of a facility for a waste management activity listed in Category A or B of this Schedule.	
Residue stockpiles or residue deposits	
(15) The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a prospecting right or mining permit, in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002).	
Category B	
Storage of hazardous waste	
(1) The storage of hazardous waste in lagoons <u>excluding storage of effluent, wastewater or sewage.</u>	No – excluded - WWTW
Reuse, recycling or recovery of waste	
(2) The reuse or recycling of hazardous waste in excess of 1 ton per day, excluding reuse or recycling that takes place as an integral part of an internal manufacturing process within the same premises.	No
(3) The recovery of waste including the refining, utilisation, or co-processing of the waste at a facility that processes in excess of 100 tons of general waste per day or in excess of 1 ton of hazardous waste per day, excluding recovery that takes place as an integral part of an internal manufacturing process within the same premises.	No
Treatment of waste	
(4) The treatment of hazardous waste using any form of treatment at a facility that processes in excess of 1 ton per day calculated as a monthly average, <u>excluding the treatment of effluent, wastewater, sewage or organic waste using composting or any other organic waste treatment.</u>	No - excluded – WWTW 340 kg DS sludge / day
(5) The treatment of hazardous waste in lagoons, <u>excluding the treatment of effluent, wastewater or sewage.</u>	No – excluded - WWTW
(6) The treatment of general waste using any form of treatment at a facility that has a capacity to process in excess of 100 tons per day calculated as a monthly average, <u>excluding the treatment of organic waste using composting or any other organic waste treatment.</u>	No - 340 kg DS sludge / day – composting excluded
(7) The <i>disposal</i> of any quantity of hazardous waste to land.	No – no disposal on site
(8) The disposal of general waste to land covering an area in excess of 200 m and with a total capacity exceeding 25 000 tons.	No
(9) The disposal of inert waste to land in excess of 25 000 tons, excluding the disposal of such waste for the purposes of levelling and building which has been authorised by or under other legislation. Construction of facilities and associated structures and infrastructure	No
(10) The construction of a facility for a waste management activity listed in Category B of this Schedule (not in isolation to associated waste management activity).	No
Residue stockpiles or residue deposits	No
(11) The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right, exploration right or production right in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002).	No
Category C	
Norms and Standards	
(1) The storage of general waste at a facility that has the capacity to store in excess of 100 m of general waste at any one time, excluding the storage of waste in lagoons or temporary storage of such waste.	No
(2) The storage of hazardous waste at a facility that has the capacity to store in excess of	No

80 m of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.	
(3) The storage of waste tyres in a storage area exceeding 500 m . Treatment, Recycling, or Recovery of waste	No
(4) The scrapping or recovery of motor vehicles at a facility that has an operational area in excess of 500 m	No
(5) The extraction, recovery or flaring of landfill gas.	No
(6) The sorting, shredding, grinding, crushing, screening or baling of general waste at a waste facility that has an operational area that is 1 000 m and more.	No
(7) The treatment of organic waste using composting and any other organic waste treatment.	Yes – on site composting

1.5.3.1. DEA SCREENNG TOOL

A screening tool has been developed by the Department of Forestry, Fisheries and Environmental Affairs (DFFE). 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.

A Screening Report referred to in Regulation 16(1)(v) of the EIA Regulations 2014, must accompany any application for Environmental Authorisation.

A screening report was generated for the proposed project and the following environmental sensitivities are identified. These have been used as a guide to generate the recommended list of specialist studies.

- Agricultural Theme (High Sensitivity)
- Animal Species Theme (High Sensitivity)
- Aquatic Biodiversity Theme (Very high Sensitivity)
- Archaeological and Cultural Heritage Theme (Low sensitivity)
- Civil Aviation Theme (Low sensitivity)
- Defence Theme (Low Sensitivity)
- Palaeontology Theme (Very High Sensitivity)
- Plant Species Theme (Medium sensitivity)
- Terrestrial Biodiversity Theme (Very high Sensitivity)

1.6. Impact Assessment Process

An impact assessment is carried out to identify and assess potential impacts associated with the proposed development. Mitigation measures to reduce anticipated negative impacts and enhance anticipated positive impacts are recommended. Public participation process will be carried out according to NEMA EIA Regulation 41 of GN R.326, 2017. All interested and affected parties (IAPs) are encouraged to participate. The assessment concludes with recommendations and conditions for environmental authorisation.

An application for Environmental Authorisation (EA) and Waste Management License (WML) will be made to the competent authority (CA). The CA and will be confirmed during the pre-application phase of the process. It is assumed that a basic assessment process is required to be followed as part of the application process, however, this this will be confirmed during the pre-application phase of the process.

A water use license application will be made to the Department of Water and Sanitation (DWS).

Description of Tasks within the Environmental Authorisation Application Process

- Public participation starts announcing the proposed project and the registration of Interested and Affected Parties (IAPs). Newspaper advertisements and site notices are placed, and notifications are sent to identified stakeholders, landowners and adjacent landowners prior to submission of the application to CA – **We are here in the process.**
- An Assessment Report is compiled that considers inputs from stakeholders, IAPs and specialists, in terms of:

- potential impacts of the activity on the environment;
 - whether the impacts can be mitigated, and if so to what extent; and,
 - whether there are any other significant issues / impacts to be investigated. – **We are here in the process.**
- The applications are submitted to the CA
 - All registered interested and affected parties will receive draft reports for a 30-day review period to registered IAPs and stakeholders. Your comments are incorporated, and the reports are then finalised.
 - These final reports are submitted to the CA for decision making
 - A copy of the decision is made available to you to consider, along with the reasons for the decision made. If you disagree with the decision, you are provided with information on how to lodge an appeal.

1. HOW DO YOU PARTICIPATE

A critical element of the application processes is the Public Participation Process that gives Interested and Affected Parties (I&APs) an opportunity to provide comments on a proposed WWTW. CEN IEM Unit will conduct the public participation process as set out in the NEMA EIA regulations, 2014 (as amended).

Every proposed project and/or development has the potential to significantly affect the natural and social environments, both at, as well as, surrounding the proposed development site. While some of the impacts will have an adverse impact on the environment others will have a beneficial impact.

For this reason, it is imperative that you as an Interested and/or Affected Party (IAP) comment on the proposed development and raise issues or concerns that you feel needs to be considered during the assessment process.

To register as an IAP and submit initial comments regarding the proposed development, please submit your contact details and initial comments comments to CEN IEM Unit by **2 December 2024.**

CEN IEM Unit

claire@environmentcen.co.za

0846074743