



**T/ING/002/2024: HANDLING, MANAGEMENT
AND DISPOSAL OF SLUDGE FROM GEORGE
MUNICIPAL WATER AND WASTEWATER
TREATMENT WORKS**

**INFORMATION STATEMENT IN TERMS OF
SECTION 33 OF THE MUNICIPAL FINANCE
MANAGEMENT ACT, 2003**

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1. INTRODUCTION

1.1. Objectives

To ultimate objective of the George Municipality is to:

- a. Grant a long-term right to an external entity to use, control and manage the proposed Gwaing wastewater treatment works sludge drying facility with a value in excess of R10 million, and
- b. Enter into a long-term agreement with the external entity for the operation and maintenance of the proposed George BBF for a period of ten (10) years (Tender T/ING/002/2024), either in terms of pricing scenario 1 or 2.

1.2. Background

The George Municipality is considering granting long-term rights to use, control and manage the proposed George Biosolids Beneficiation facility (BBF) located at the Gwaing Wastewater Treatment Works to an experienced and qualified external entity.

The current methods used by the George Municipality to dispose sludge are not satisfactory and are not in terms of the Guidelines for the utilisation and disposal of wastewater sludge volumes 1 to 5. To effectively dispose of sludge post dewatering (current treatment process end point), further treatment facilities/processes at the wastewater treatment works are required.

The external mechanism will endeavour to sustainably treat, manage and re-use/recover wastewater sludge to ensure compliance with environmental legislation in order provide the minimum level of basic municipal services.

This information statement outlines the rationale behind this proposal, expected benefits, potential financial implications, and other relevant considerations.

1.3. Intention

The intention of the George Municipality is to:

- a. Secure the land required (George Municipal property) and all environmental approvals to construct the facility.
- b. Design, procure and construct in a phased approach a solar drying facility (see section 1.7 for further details)
- c. That the Municipality timeously upgrade the solar drying facility in capacity for future additional sludge volumes.
- d. Granting long-term rights (10 years) to use, control or manage the proposed solar drying facility at the Gwaing Wastewater Treatment Works to the qualified external entity that is anticipated to be appointed as part of T/ING/002/2024 (no asset disposal involved).
- e. That the agreement between the external entity and the Municipality includes payment of the following items by the external entity to the Municipality or Municipality to the external entity in terms of the Scenario 1 or 2 pricing principle (see section 1.9 and 1.10 for further details):
 - i. Monthly variable payment from Contractor to George Municipality for leasing the BBF, providing for all costs for the loading, transporting and treatment and/or processing, and the removal of all sludge for beneficial use,
 - ii. Monthly variable payment from the Contractor to the George Municipality, for mass of sludge provide by the Client in excess of 4 tonnes of sludge at 90% dry solids,
 - iii. Monthly variable deduction from payment due to the George Municipality, for shortfall of sludge provided by the Client less than 4 tonnes of sludge at 90% dry solids.
- f. That the external entity operates and maintain the facility for the duration of the agreement.

1.4. Treatment Process

Solar drying is a typical process to dry sludge after initial mechanical dewatering (15 – 20% dry solids), with or without a roof covering (dependent on climate) to achieve a much drier sludge between 65 and 90% dry solids.

The drying process reduces pathogens and faecal coliforms that are harmful to humans, animals and the environment. Another benefit of solar drying is the reduction of moisture content, leading to the reduction of mass and volume of the sludge. This reduces transport costs and simplifies sludge handling.

The George BBF will consist of a solar drying facility and is described in further detail below.

1.5. Location

The proposed facility is planned to be located at the Gwaing wastewater treatment works on municipal owned property (Erf RE/464) north of the existing wastewater treatment works footprint. Refer to figure 1 below.



Figure 1: Proposed location of the solar drying facility

1.6. Sludge Mass Projections

Figure 2 below indicates the combined sludge mass projections for the George Municipal WWTW's (Gwaing, Outeniqua, Kleinkrantz and Uniondale). The projected sludge production by these WWTW's post mechanical dewatering amounts to $\pm 40\,000\text{kg/day}$ in 2023 and is projected to increase up to $\pm 138\,000\text{kg/day}$ in 2063 at a medium growth rate of 3 to 3.3%.

Note the projections are estimations only ranging from low (1.6%) to high (3.6 to 4%) population growth scenarios.

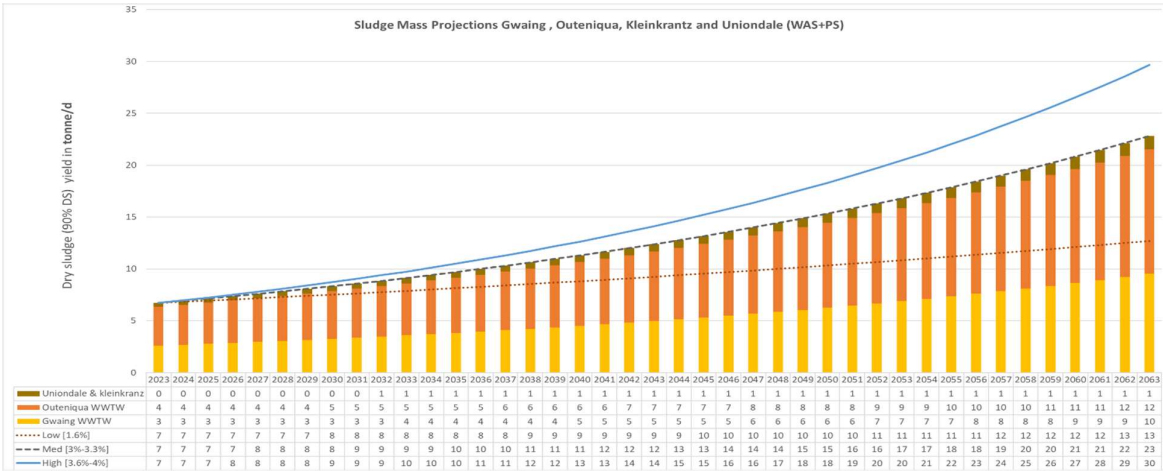


Figure 2: 40-year sludge volume projections

1.7. Description of the Asset

The facility is proposed to be sized initially to receive approximately 50 tonnes/day (15% DS) or 8.3 tonnes/day (90% DS), with additional drying trains added in future in line with the realized population growth rates. This capacity of the BBF should be sufficient until at least 2030 based on a population growth rate of 3 to 3.3%.

The proposed asset/facility will typically consist of the following:

- a. Concrete slabs, approximately 30 000 m² in area for the various stages of sludge stockpiling, solar drying, blending and handling.
- b. Columns and a roof structure with translucent roof sheeting (13 000m²).
- c. Building/shed of 18m by 36m and a clear height of 4,5m for the granulation plant.
- d. Building of 18m by 36m for packaging and distribution, including offices, ablutions, canteen area for operating staff.
- e. Movable precast concrete walls placed on slabs to demarcate separated process areas and to prevent contamination of treated sludge by raw sludge.
- f. Fencing around the area including a security gate and guard house.
- g. Utility connections: water, power and sewerage. Optionally treated effluent from the WWTW.
- h. Rainwater collection and storage from roof structures
- i. Stormwater collection and drainage to the Gwaing WWTW
- j. Optionally a weighbridge of 60 tonne capacity, and 22m in length, installed and equipped with an air-conditioned control cabin with computer, printer and the weighbridge electronics.

A schematic layout of the proposed facility is included in figure 3 below.

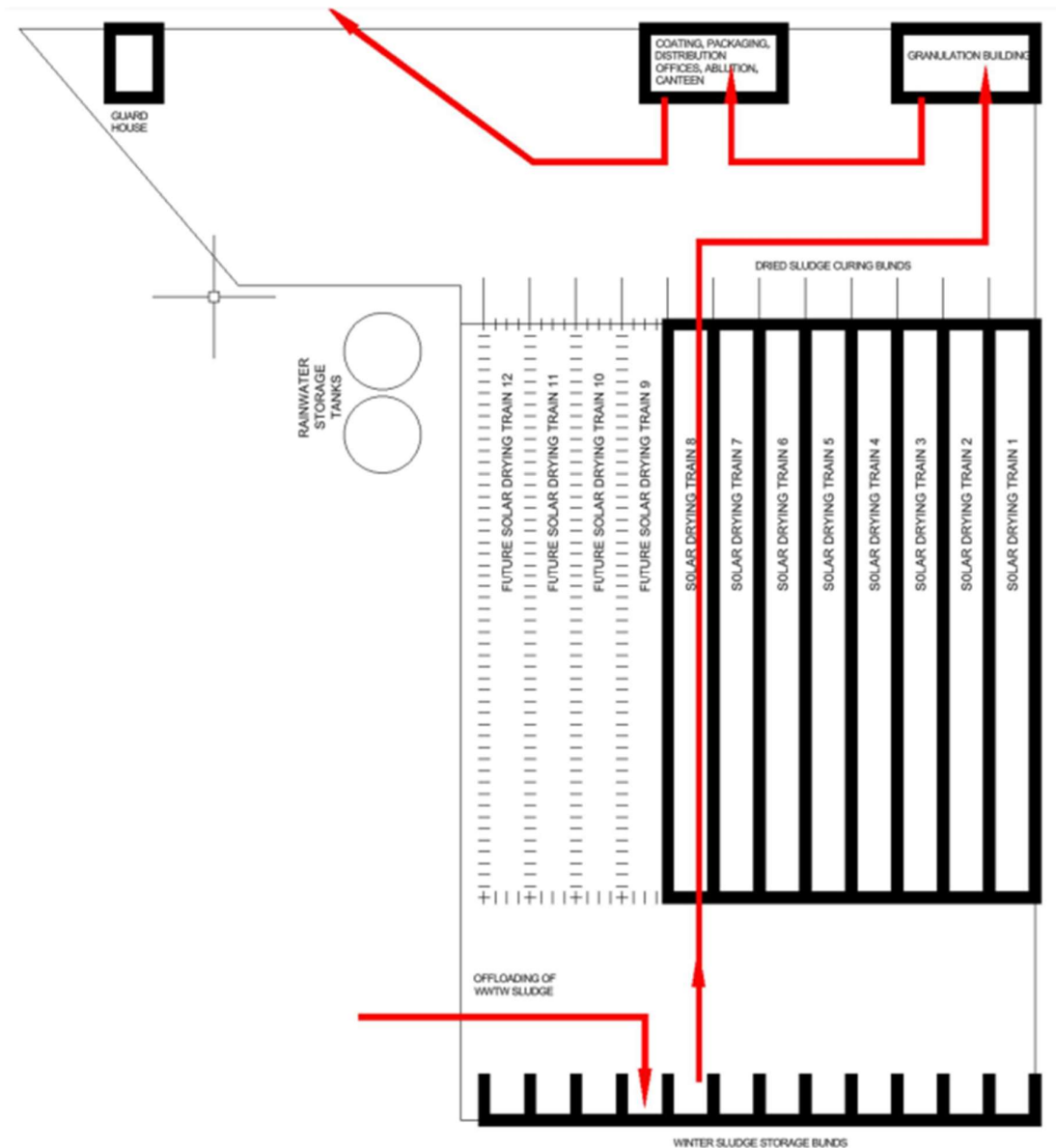


Figure 3: George BBF schematic layout with basic process flow

The facility can be designed for and operated with continuous drying or batch drying. Continuous solar sludge drying involves a steady, ongoing process where sludge is continuously fed into the drying system, typically spread in thin layers within a greenhouse structure. In contrast, batch solar sludge drying processes sludge in discrete batches, where each batch is dried separately before the next one begins.

An example of an advanced solar drying facility (continuous solar drying) with an automated sludge spreader and turner equipment, translucent roof sheeting and forced ventilation is shown in figure 4 below.

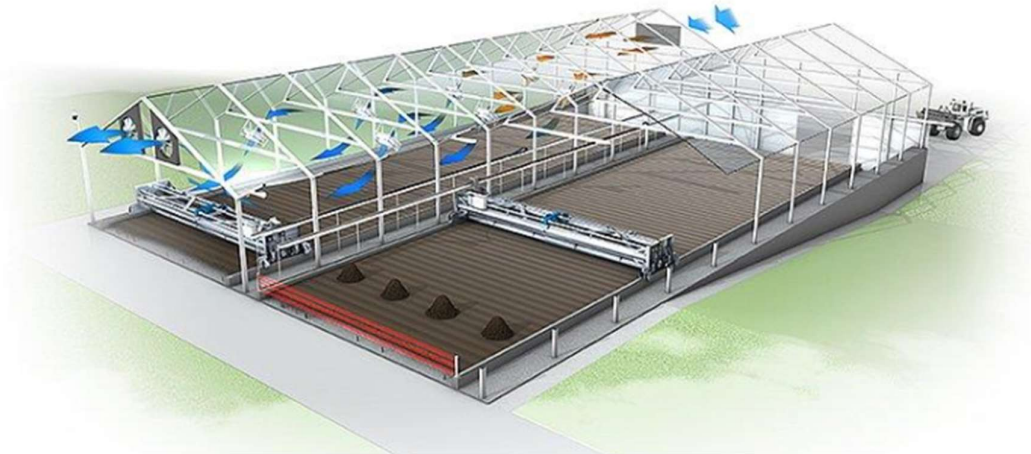


Figure 4: Example of advanced solar drying facility (Huber)

An example of a batch solar drying facility with an automated sludge spreader and turner equipment, translucent roof sheeting and forced ventilation is shown in figure 5 below.



Figure 5: Electric mole as part Solar batch system (Thermo-Systems)

1.8. Estimated Cost of the Asset

A high-level cost estimate (2023) for the biosolids beneficiation facility and the associated mobile plant and equipment was determined at R167 818 612.00 and R47 000 000.00 excluding VAT respectively. The cost estimate is based on the batch solar drying process.

The final cost of the asset is subject to the refinement of the detail design and final procurement cost.

The facility will remain beneficial to the Municipality with or without the involvement of an external service provider (subject to incorporating sufficient resources and skills into the Municipality to operate the facility), as the facility will assist the Municipality in producing or achieving the highest

sludge class i.e. A1a sludge – low pathogens {A}, highly stable {1} and has low pollutants {a}, and at the same time significantly reducing the mass and volume of sludge. To beneficially dispose of the sludge, the Municipality would be required to construct such a facility or alternative type of facility.

Drying the sludge through such a process automatically makes the sludge a more attractive commodity for composting or fertilizer production.

1.9. Basis of Tender

The Tenderer were asked in the Price List to offer a fixed monthly rate based on a sludge mass of 4 tonnes/day (at 90% DS).

It is however expected that the average sludge mass will be higher than 4 tonnes/day (at 90% DS) and that the sludge mass will increase over time and therefore Tenderers were requested to offer a variable rate for the mass of dry sludge that the Municipality can provide more than 4 tonnes as part of the Scenario 1 and Scenario 2 pricing principles.

1.10. Pricing Principles

The stage 2 tender document made provision for two pricing scenarios for completion by the Tenderer; the scenarios are outlined below.

Scenario 1:

- The Municipality pays no initial amount or any amount to the Contractor.
- The Municipality procures the required mobile plant and equipment to operate the facility.
- The Contractor pays monthly amounts to the Municipality for leasing of the facility and for the partially dewatered sludge.

SECTION 1: SCENARIO 1 (CLIENT PROVIDES PLANT AND EQUIPMENT)

ITEM NO	REF.	DESCRIPTION	UNIT	QTY	RATE (R)	AMOUNT (R)
1.1		Monthly fixed payment from Contractor to the George Municipality for leasing the BBE, providing for all costs for the loading, transporting and treatment and/or processing, and the removal of all sludge for beneficial use, based on 4 tonnes/day at 90% dry solids, or 30 tonnes/day at 15% dry solids, as cumulative for the month.	month	120	R	R
1.2		Monthly variable payment from Contractor to the George Municipality, for mass of sludge provided by the Client in excess of 4 tonnes/day of sludge at 90% dry solids, as cumulative for the month.	Tonne	1	R	R
1.3		Monthly variable deduction from payment due to the George Municipality, for shortfall of sludge provided by the Client less than 4 tonnes/day of sludge at 90% dry solids, as cumulative for the month.	Tonne	-1	R	-R
TOTAL VALUE OVER 10 YEARS CARRIED FORWARD TO SUMMARY						R

Figure 6: Scenario 1 price list principle extract

Scenario 2:

- The Municipality pays no initial amount or any amount to the Contractor.
- The Municipality does not procure the required mobile plant and equipment to operate the facility in this scenario; the Contractor procures and owns the mobile plant and equipment.
- The Contractor pays monthly amounts to the Municipality for leasing of the facility and for the partially dewatered sludge.

SECTION 2: SCENARIO 2 (CONTRACTOR PROVIDES PLANT AND EQUIPMENT)

ITEM NO	REF.	DESCRIPTION	UNIT	QTY	RATE (R)	AMOUNT (R)
2.1		Monthly fixed payment from Contractor to the George Municipality for leasing the BBF, providing for all costs for the loading, transporting and treatment and/or processing, and the removal of all sludge for beneficial use, based on 4 tonnes/day at 90% dry solids, or 30 tonnes/day at 15% dry solids, as cumulative for the month.	month	120	R	R
2.2		Monthly variable payment from Contractor to the George Municipality, for mass of sludge provided by the Client in excess of 4 tonnes/day of sludge at 90% dry solids, as cumulative for the month.	Tonne	1	R	R
2.3		Monthly variable deduction from payment due to the George Municipality, for shortfall of sludge provided by the Client less than 4 tonnes/day of sludge at 90% dry solids, as cumulative for the month.	Tonne	-1	R	-R
TOTAL VALUE OVER 10 YEARS CARRIED FORWARD TO SUMMARY						R

Figure 7: Scenario 2 price list principle extract

The external entity provided a negative rate for item 2.1, reversing the monthly fixed payment from the Municipality to the Contractor. The business model of the entity becomes financially unfeasible as the service provider must procure the mobile plant and equipment while operating under the conservative sludge mass estimate of 4 tonnes DS per day.

However, if the Municipality can provide the 8 tonnes DS per day as the baseline, the business model for the scenario reverses and becomes feasible. The scenario 2 pricing principle then becomes attractive for both the Municipality and the entity for the following reasons:

- The rate for item 2.1 becomes zero,
- The service provider will procure the required mobile plant and equipment,
- Scenario 2 will fall within the prescripts of Section 33 of the MFMA.

The draft contract is available for viewing at:

George Municipality
Old Town Hall
Corner of Market and York Street
George
6530

2. LEGISLATIVE PROCESS

2.1. Applicable Legislation

The legislation applicable to the project and process is indicated in figure 8 and is discussed in Table 1 below.

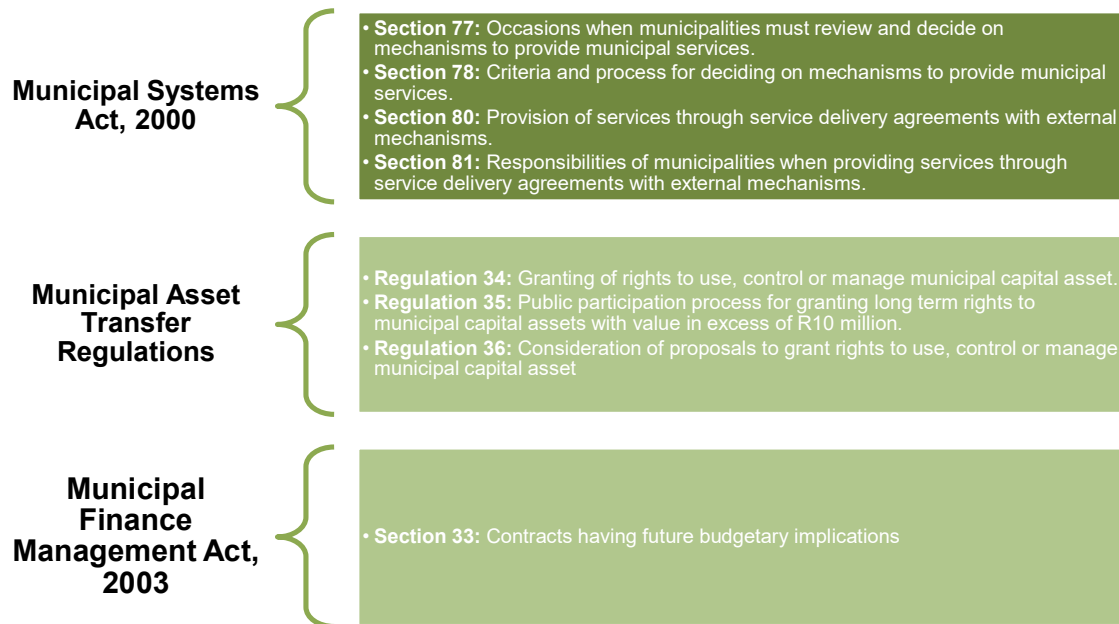


Figure 8: Summary of applicable Acts and Regulations

Table 1: Relevant Acts and Regulations

No	Act / Regulation	Discussion	
1	MFMA Section 33:	Pricing Principle: Scenario 1	This scenario falls within the principles/prescripts of Section 33, as no financial implication beyond three financial years will be realised. See section 1.10.
		Pricing Principle: Scenario 2	This scenario falls outside the principles/prescripts of Section 33, and a financial implication beyond three financial years will be realised if the Municipality cannot provide the Service Provider with more than 8 tonnes/day dried sludge. See section 1.10.
2	MFMA: Municipal Asset Transfer Regulations: Regulations 34	To grant the rights to use, control or manage municipal capital assets by an external entity:	Obtain in-principle approval from the Municipal Council
			Consider the information statement
			Obtain authorisation from the Municipal Council to conduct the public participation process

Table 2 below provides an overview of the activities conducted and finalised in terms of the above Acts and Regulations to date.

Table 2: Status of activities to the Relevant Acts and Regulations

No	Act / Regulation	Discussion		Status
1	MFMA: Municipal Asset Transfer Regulations: Regulations 34 & 40	To grant the rights to use, control or manage municipal capital assets by an external entity:	Obtain in-principle approval from the Municipal Council	✓ 06-12-2024
			Consider the information statement	✓ 06-12-2024
			Obtain authorisation from the Municipal Council to conduct the public participation process	✓ 06-12-2024
2	MFMA: Municipal Asset Transfer Regulations: Regulations 35	Public participation process for granting long term rights to municipal capital assets with value in excess of R10 million	Conduct 60-day PPP	✓ 12-12-2024 to 13-03-2025
			Invite local community & other I&AP's to submit comments	✓ 12-12-2024
			Solicit views and recommendations of National & Provincial Treasury	✓ 12-12-2024
3	MFMA: Municipal Asset Transfer Regulations: Regulations 41	Granting of rights to use, control or manage municipal capital assets to be in accordance with disposal management system	Selects a private sector party through a competitive bidding process (refer to section B)	✓
			Council grants the right to use, control or manage the capital asset as an integral component of the performance of the commercial service	✓ 24-04-2025
4	MFMA: Section 33	Complying with the prescripts of the Act in anticipation of entering into a long-term agreement that is longer than 3 financial years and which may have a financial implication on the Municipality.	Requirement to conduct a 30-day PPP to section 33 prior to award of the contract. Item submitted to Council agenda for 27 June 2025 to obtain authorisation to conduct a 30-day PPP.	Underway

2.2. Municipal Council ApprovalMunicipal Asset Transfer Regulations:

The item was presented to the full George Municipal Council on Thursday, 05 December 2024. Council resolved and supported the recommendations included in section 2.1 above. The Municipality is therefore proceeding with recommendation/resolution c. Refer to **Annexure A**.

Municipal Finance Management Act – Section 33:

The Municipality submitted an item to serve before the full Council on Friday, 27 June 2025. The item included the following resolution:

- a. Authorise the commencement of the public participation process in terms of Section 33 of the Municipal Finance Management Act (Act 56 of 2003).

Council resolved and supported the recommendation, and the Municipality is therefore proceeding with the recommendation/resolution and will be conducting a 30-day public participation process.

Refer to Annexure B.

2.3. Public Participation Process

In terms of Section 33 of the Municipal Finance Management Act (Act 56 of 2003), the Municipality hereby conducts a public participation process for a period of 30 days from Thursday, 03 July 2025 to Monday, 04 August 2025 and invites comments from the community and other interested parties.

The public participation process ends on Monday, 04 August 2025 at 16:30.

2.4. Procedure for providing comments

Any comments or representations in respect of the Municipality's intention to grant a long-term right to an external entity, enter into a long-term agreement for a high-value asset must be submitted in writing on or before 16:30 Monday, 04 August 2025 in a sealed envelope clearly endorsed or submitted via electronic email.

The sealed envelope must be addressed as follows:

George BBF: Section 33 Public comment
George Municipality
Old Town Hall
Corner of Market and York Street
George
6530

Electronic email submissions must include the following in the subject line:

George BBF: Section 33 Public comment
Attention: Melanie Geyer

The following information is to be provided as part of the comment provided by individuals and/or organisations submitting comments and must be clearly stated in the submission

Individuals	Organisations
Full name and Surname	Registered name of Organization
Identity number	Registration number (if applicable)
Physical Address	Physical Address
	Postal Address
Postal Address	Contact Person / Representative of the Organisation
	Position of Contact Person / Representative of the Organisation
Contact details: Mobile number	Authority / Resolution from Organisation authorising person to act on behalf of the organisation
Contact details: Email address	Contact details: Mobile number
	Contact details: Email address

3. MUNICIPALITY'S OBLIGATIONS

In terms of Section 33(1)(a)(i)(aa) of the MFMA (Act 56 of 2003) the Municipality must make public the information statement summarising the Municipality's obligations in terms of the proposed contract.

The obligations are discussed in terms of each pricing scenario below, with some obligations being common to both pricing scenarios.

3.1. Generic Obligations

The following obligations are common to both Scenario 1 and 2:

- a. Comply with the required legislation in granting a long-term right for the management, control or use of a facility.
- b. Plan, design and construct the George Biosolids Beneficiation Facility with the required utility connections.
- c. Obtain the required authorisations in terms of the National Environmental Management Act and National Water Act and ensure compliance during the construction, operation and maintenance of the facility
- d. Secure adequate funding for the construction of the facility to satisfy the current need
- e. Ensure adequate planning and funding allocation for the future expansion of the facility as and when required.
- f. The Client will deposit the dewatered activated sludge at the receiving bay of the BBF daily, from where it can be collected by the Contractor.
- g. The Client shall bear the cost of scheduled maintenance and servicing of the relevant immovable assets.
- h. Ensure that the required insurances are in place for the immovable assets.
- i. Monitor compliance of the external entity in terms of the contract conditions.
- j. Appoint an independent Health and Safety Agent to achieve compliance to the relevant regulations. The duly appointed Health and Safety Agent will be responsible for further monitoring and the auditing of the approved Health and Safety plan for legal compliance during construction.
- k. Avail the services of an Environmental Assessment Practitioner to achieve compliance to the relevant regulations.
- l. The duly appointed Environmental Control Officer will be responsible for monitoring and the auditing of the Environmental Management Programme for compliance during Construction.

3.2. Scenario 1 Specific Obligations

The Municipality's obligations in terms of Scenario 1 are:

- a. Secure adequate funding for the procurement of the mobile plant and equipment.
- b. Procure the required mobile plant in equipment.
- c. Ensure adequate insurances are in place for the required mobile plant and equipment.
- d. Ensure adequate planning and funding is in place for replacement of the required mobile plant and equipment as and when required.

3.3. Scenario 2 Specific Obligations

The Municipality's obligations in terms of Scenario 2 are:

- a. None

ANNEXURE A



EXTRACT FROM DRAFT MINUTES ORDINARY COUNCIL MEETING 24 APRIL 2025

8.1.1 **HANDLING, MANAGEMENT AND DISPOSAL OF SLUDGE FROM GEORGE MUNICIPAL WATER AND WASTEWATER TREATMENT WORKS – GRANTING OF THE RIGHT TO CONTROL, USE OR MANAGE THE PROPOSED GEORGE BIOSOLIDS BENEFICIATION FACILITY [6.1.1]**

Proposed by Councillor Kleynhans and seconded by Councillor Johnson, it was

RESOLVED

- (a) That all aspects have been considered in terms of Regulation 36 of the Local Government: MFMA, 2003 Municipal Asset Transfer to grant the rights to use, control or manage a municipal capital asset;
- (b) That the asset is needed in terms of Regulation 44 of the Local Government: MFMA, 2003 Municipal Asset Transfer to provide a minimum level of basic municipal services and that the conditions be imposed;
- (c) That the long term right (10 years) to use, control or manage the George Biosolids Beneficiation Facility (BBF) with a value in excess of R10 million be granted to the recommended bidder through the competitive bidding process in terms of Regulation of the Local Government: MFMA, 2003 Municipal Asset Transfer 41(2) and (3);
- (d) That the extension of the long term right beyond a 10-year period be subject to Council approval;
- (e) That the agreement be finalised and published in terms of Regulation 45 and 46.

Date: 25/04/2025

Manager: Committee Support (Miss R Bredenkamp)

Date: 25/04/2025

Director: Corporate Services (Mr B Ellman)

ANNEXURE B



EXTRACT FROM DRAFT MINUTES ORDINARY COUNCIL MEETING 27 JUNE 2025

11.7 HANDLING, MANAGEMENT AND DISPOSAL OF SLUDGE FROM GEORGE MUNICIPAL WATER AND WASTEWATER TREATMENT WORKS – REQUEST FOR PUBLIC PARTICIPATION ITO MFMA (ACT 56 OF 2003): SECTION 33

Proposed by Councillor Kleynhans and seconded by Councillor Jantjies, it was

RESOLVED

That the commencement of the public participation process in terms of Section 33 of the Municipal Finance Management Act (Act 56 of 2003) be authorised for both pricing Scenario's.

 Date: 30/06/2025

Acting Manager: Committee Support (Mrs C Jansen-Joubert)

 Date: 30/6/2025

Deputy Director: Corporate Services (Admin) (Mr E Ganza)

 Date: 01/07/2025

Director: Corporate Services (Mr B Ellman)