



**.REFERENCE:** 16/3/3/1/D2/17/0008/23  
**ENQUIRIES:** Shireen Pullen  
**DATE OF ISSUE:** **26 OCTOBER 2023**

George Municipality  
Water & Sanitation: Civil Engineering Services  
PO Box 19  
**GEORGE**  
6530

**Attention: Mr. J. Koegelenberg**

Tel: 044 801 9278

Email: [Jkoegelenberg@george.gov.za](mailto:Jkoegelenberg@george.gov.za)

Dear Sir

## ENVIRONMENTAL AUTHORISATION

### **APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014: THE PROPOSED UPGRADE OF THE EXISTING EDEN SEWAGE PUMP STATION ON ERVEN RE/5987, 6013 AND 6014, GEORGE**

With reference to your application for the abovementioned, find below the outcome with respect to this application.

#### **DECISION**

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014, the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the preferred Layout Alternative A, described in the Final Basic Assessment Report ("FBAR"), dated 10 July 2023 as prepared and submitted by Sharples Environmental Services cc, the appointed Environmental Assessment Practitioner ("EAP") on 13 July 2023.

The applicant for this Environmental Authorisation is required to comply with the conditions set out in section E below.

#### **A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION**

George Municipality  
Water & Sanitation: Civil Engineering Services  
Mr. J. Koegelenberg

Email: Jkoegelenberg@george.gov.za

The abovementioned applicant is the holder of this Environmental Authorisation (hereinafter referred to as "**the Holder**").

**B. LIST OF ACTIVITIES AUTHORISED**

| Listed Activities   | Activity/Project Description   |
|---|--|
| <b>Environmental Impact Assessment Regulations Listing Notice 3 of 2014,<br/>           Government Notice No. 985 of 4 December 2014</b>  |  |
| <p>Activity Number: 4<br/>           Activity Description:<br/>           The development of a road wider than 4 metres with a reserve less than 13,5 metres.</p> <p>i. Western Cape</p> <p>    i) Areas zoned for use as public open space or equivalent zoning;</p> <p>    ii) Areas outside urban areas;</p> <p>    iii) Areas containing indigenous vegetation;</p> <p>    iv) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or</p> <p>    v) Inside urban areas:</p> <p>        a) Areas zoned for conservation use; or</p> <p>        b) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.</p> | <p>The access road to the facility will be located in the public park and within the Kat River Protected area. This activity is therefore triggered.</p> |

The abovementioned list is hereinafter referred to as "**the listed activities**".

The Holder is herein authorised to undertake the following alternative that includes the listed activities as it relates to the development and development footprint.

The proposal entails the upgrading and refurbishment of the existing Eden sewage pumpstation to industry standards and the formalisation of the temporary storage dam into a permanent emergency storage dam south-east of the pumpstation. The works will include, but not be limited to the following:

- The upgrade and refurbishment of the existing buildings.
- Upgrade of the inlet works to provide flow measurement, screening of solids, grit removal, flow diversion in the form of sluice gates and channels, rerouting of inlet pipes and refurbishment of corroded concrete structures.
- The storage capacity of the wet well (sump) will be assessed to establish whether additional storage is required.
- Improvements to the civil infrastructure at the pump station (including but not limited to pump room drainage sump which does not pump leakage water back to the wet well; the faulty isolating valve on the rising main needs to be replaced; the suction pipes in the wet well are expected to be

damaged or blocked and need attention; the wet well will need to be emptied and cleaned by a specialist contractor to gain man entry access for an inspection of the suction pipes and for the necessary repair /replacement; the hydraulic performance of the wet well and the suction pipe arrangement will be investigated and overland stormwater drainage of the site needs to be better managed).

- Improvements and formalisation of vehicle access to the pump house.
- Re-routing of the rising main where it is laid beneath a house from the pumpstation, within the roadway, to the corner of Pikkewyn and Stander Steet (Approximately 560m).
- The investigation of the hydraulic performance and condition of the rising main to determine which improvements may be required. A magflow meter will be provided on the rising main for measurement of flow from the pumpstation.
- Rerouting of approximate 100m of the recently constructed bulk gravity sewer to tie into the new inlet works (Parallel to Dikkop Street and to the west of the Pumpstation).
- The complete overhaul of the electrical equipment at the pump station.
- Assessment of the mechanical engineering equipment.
- Improvement of all the general site conditions.
- Subdivision and rezoning of portions of neighbouring land parcels that are encroached upon and will be further encroached upon by additional structures required (emergency storage tank).
- Emergency storage: two concrete tanks will be provided, a smaller emergency sump and a larger emergency storage tank, both structures will be located inside the existing boundaries of the facility. The emergency sump will be sized for a volume of 45kl to allow drainage of pipework and the dry-well during maintenance or emergencies. The emergency storage tank will be designed with a capacity of approximately 550kl. This is equivalent to 5.3 hours of emergency storage capacity at ADWF (28.90 l/s) and 4.0 hours at PDWF (37.77 l/s).
- The mitigation of the risk of overflows during power outages with the installation of a 4500 litre fuel storage tank, which will be underground and situated in the eastern corner of the site, north of the proposed emergency storage tank.

The proposed permanent storage dam will be located south-east of the existing pumpstation and will be a Rectangular Emergency Storage Tank.

The development will be implemented approximate to the site development plan contained in Annexure 2 of this authorisation.

### C. SITE DESCRIPTION AND LOCATION

The Eden sewage pumpstation is situated on erven 6013, 6014 and RE/5987, George, George Local Municipality. The site is situated within the Kat River Nature Reserve and in very close proximity to the Full Supply Level (FSL) of the Garden Route Dam. The site has been lawfully used as a sewage pumpstation for more than 40 years, the site is serviced, and services extend beyond the boundaries of the site in all directions.

The coordinates of the centre of the proposed development footprint site:

Coordinates:

| Latitude (S)         | Longitude (E)       |
|----------------------|---------------------|
| 33° 57' 29.84" South | 22° 29' 51.29" East |

SG 21 Codes:

| Property | SG21 Code                                 |
|----------|---|
| RE/5987  | C 0 2 7 0 0 0 2 0 0 0 0 5 9 8 7 0 0 0 0 0 |
| 6013     | C 0 2 7 0 0 0 2 0 0 0 0 6 0 1 3 0 0 0 0 0 |

|             |   |
|-------------|---|
|             |   |
| <b>6014</b> | C 0 2 7 0 0 0 2 0 0 0 0 6 0 1 4 0 0 0 0 0 |

Refer to Annexure 1: Locality Plan and Annexure 2 of this Environmental Authorisation.

The above is hereinafter referred to as "**the site**".

#### **D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)**

Sharples Environmental Services cc  
 % Mr. Michael Bennett  
 P.O. Box 9087  
 GEORGE  
 6530

Tel: 044 873 4923  
 E-mail: [michael@sesc.net](mailto:michael@sesc.net)  
 Website: [www.sesc.net](http://www.sesc.net)

#### **E. CONDITIONS OF AUTHORISATION**

##### ***Scope and Validity Period of authorisation***

1. This Environmental Authorisation is granted for a period of 5 years from the date of issue of this authorisation until **01 November 2028** to complete all the listed activities, including post construction, rehabilitation and monitoring requirements at the site.

Failing which, this Environmental Authorisation shall lapse, unless the Environmental Authorisation is amended in accordance with the relevant process contemplated in the Environmental Impact Assessment Regulations promulgated under the National Environmental Management Act, 1998 (Act no. 107 of 1998).

2. The Holder is authorised to undertake the listed activities specified in Section B above in accordance with the Preferred Alternative, as described in Section C above.

The proposal entails the upgrading and refurbishment of the existing Eden sewage pumpstation to industry standards and the formalisation of the temporary storage dam into a permanent emergency storage dam south-east of the pumpstation. The works will include, but not be limited to the following:

- The upgrade and refurbishment of the existing buildings.
- Upgrade of the inlet works to provide flow measurement, screening of solids, grit removal, flow diversion in the form of sluice gates and channels, rerouting of inlet pipes and refurbishment of corroded concrete structures.
- The storage capacity of the wet well (sump) will be assessed to establish whether additional storage is required.
- Improvements to the civil infrastructure at the pump station (including but not limited to pump room drainage sump which does not pump leakage water back to the wet well; the faulty isolating valve on the rising main needs to be replaced; the suction pipes in the wet well are expected to be damaged or blocked and need attention; the wet well will need to be emptied and cleaned by a specialist contractor to gain man entry access for an inspection of the suction pipes and for the necessary repair /replacement; the hydraulic performance of the wet well and the suction pipe arrangement will be investigated and overland stormwater drainage of the site needs to be better managed).
- Improvements and formalisation of vehicle access to the pump house.

- Re-routing of the rising main where it is laid beneath a house from the pumpstation, within the roadway, to the corner of Pikkewyn and Stander Steet (Approximately 560m).
- The investigation of the hydraulic performance and condition of the rising main to determine which improvements may be required. A magflow meter will be provided on the rising main for measurement of flow from the pumpstation.
- Rerouting of approximate 100m of the recently constructed bulk gravity sewer to tie into the new inlet works (Parallel to Dikkop Street and to the west of the Pumpstation).
- The complete overhaul of the electrical equipment at the pump station.
- Assessment of the mechanical engineering equipment.
- Improvement of all the general site conditions.
- Subdivision and rezoning of portions of neighbouring land parcels that are encroached upon and will be further encroached upon by additional structures required (emergency storage tank).
- Emergency storage: two concrete tanks will be provided, a smaller emergency sump and a larger emergency storage tank, both structures will be located inside the existing boundaries of the facility. The emergency sump will be sized for a volume of 45kl to allow drainage of pipework and the dry-well during maintenance or emergencies. The emergency storage tank will be designed with a capacity of approximately 550kl. This is equivalent to 5.3 hours of emergency storage capacity at ADWF (28.90 l/s) and 4.0 hours at PDWF (37.77 l/s).
- The mitigation of the risk of overflows during power outages with the installation of a 4500-litre fuel storage tank, which will be underground and situated in the eastern corner of the site, north of the proposed emergency storage tank.

The proposed permanent storage dam will be located south-east of the existing pumpstation and will be a Rectangular Emergency Storage Tank.

The development will be implemented approximate to the site development plan contained in Annexure 2 of this authorisation.

3. This Environmental Authorisation may only be implemented in accordance with an approved Environmental Management Programme ("EMPr").
4. The Holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the Holder.
5. Any changes to, or deviations from the scope of the alternative described in section B above must be accepted or approved, in writing, by the Competent Authority, before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the Holder to apply for further authorisation in terms of the applicable legislation.

### **Notification and administration of appeal**

6. The Holder must in writing, within 14 (fourteen) calendar days of the date of this decision–
  - 6.1. notify all registered Interested and Affected Parties ("I&APs") of –
    - 6.1.1. the decision reached on the application;
    - 6.1.2. the reasons for the decision as included in Annexure 4;
    - 6.1.3. the date of the decision; and
    - 6.1.4. the date when the decision was issued.
  - 6.2. draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2014 (as amended) detailed in Section G below;
  - 6.3. draw the attention of all registered I&APs to the manner in which they may access the decision;
  - 6.4. provide the registered I&APs with the:

- 6.4.1. name of the Holder (entity) of this Environmental Authorisation,
  - 6.4.2. name of the responsible person for this Environmental Authorisation,
  - 6.4.3. postal address of the Holder,
  - 6.4.4. telephonic and fax details of the Holder,
  - 6.4.5. e-mail address, if any, of the Holder,
  - 6.4.6. contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the 2014 National Appeals Regulations (as amended).
- 6.5. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notified the registered I&APs of this decision.
- 6.6. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

### **Written notice to the Competent Authority**

7. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of any activities.
- 7.1. The notice must make clear reference to the site details and EIA Reference number given above.
  - 7.2. The notice must also include proof of compliance with the following conditions described herein:

#### **Conditions Number: 6 & 10**

### **Management of activity**

8. The Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved subject to the identification and inclusion of specific measures that should be implemented in case of an emergency situation including to but not limited to a sewage spill, a fire, an oil spill etc. These measures should be included under section 13 of the EMPr. A copy of the EMPr inclusive of the specific emergency measures must be submitted to the competent authority for record purposes.
9. The EMPr must be included in all contract documentation for all phases of implementation of the development.

### **Monitoring**

10. The Holder must appoint a suitably experienced Environmental Control Officer ("ECO"), for the duration of the construction and rehabilitation phases.
11. The ECO must–
- 11.1. be appointed prior to commencement of any works (i.e. removal and movement of soil and / or rubble or construction activities commencing;
  - 11.2. ensure compliance with the EMPr and the conditions contained herein;
  - 11.3. keep record of all activities on the site; problems identified; transgressions noted and a task schedule of tasks undertaken by the ECO;
  - 11.4. remain employed until all development activities are concluded, and the post construction rehabilitation and monitoring requirements are finalised.
12. A copy of the Environmental Authorisation, EMPr, any independent assessments of financial provision for rehabilitation and environmental liability, closure plans, audit reports and compliance monitoring reports must be kept at the site of the authorised activities and be made available to anyone on request, and where the Holder has a website, such documents must be made available on such publicly accessible website.

13. Access to the site referred to in Section C must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

## **Auditing**

14. The Holder must, for the period during which the environmental authorisation and EMPr remain valid ensure the compliance with the conditions of the environmental authorisation and the EMPr, is audited.
15. The frequency of auditing of compliance with the conditions of the environmental authorisation and of compliance with the EMPr, must adhere to the following programme:

- 15.1. During the period which the activities have been commenced with on site until construction of has been completed on site, the Holder must undertake annual environmental audit(s) and submit the Environmental Audit Report(s) to the Competent Authority.

A final Environmental Audit Report must be submitted to the Competent Authority within **three (3)** months of completion of the construction and the post construction rehabilitation and monitoring requirements thereof.

**Note:** The final auditing requirements should be completed at least three months prior to expiry of the validity period of the environmental authorisation to ensure the Holder is able to comply with all the environmental auditing and reporting requirements and for the competent authority to be able to process it timeously.

16. The Environmental Audit Report(s), must –
  - 16.1. be prepared and submitted to the Competent Authority, by an independent person with the relevant environmental auditing expertise. Such person may not be the ECO or EAP who conducted the EIA process;
  - 16.2. provide verifiable findings, in a structured and systematic manner, on–
    - 16.2.1. the level of compliance with the conditions of the environmental authorisation and the EMPr and whether this is sufficient or not; and
    - 16.2.2. the ability of the measures contained in the EMPr to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
  - 16.3. identify and assess any new impacts and risks as a result of undertaking the activity;
  - 16.4. evaluate the effectiveness of the EMPr;
  - 16.5. identify shortcomings in the EMPr;
  - 16.6. identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr;
  - 16.7. indicate the date on which the construction work was commenced with and completed or in the case where the development is incomplete, the progress of the development and rehabilitation;
  - 16.8. indicate the date on which the operational phase was commenced with and the progress of the rehabilitation;
  - 16.9. include a photographic record of the site applicable to the audit; and
  - 16.10. be informed by the ECO reports.
17. The Holder must, within 7 calendar days of the submission of the audit report to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and on a publicly accessible website (if applicable).

## Specific Conditions

18. A water quality monitoring plan be compiled and implemented with a view to assess the impact of the pumpstation on the dam relative to other catchment-wide impacts that originate from the Kat River, upstream of the pumpstation. For the purposes of the pumpstation, monitoring should be conducted monthly at the sites upstream and downstream of the pumpstation as determined by the freshwater specialist. It should include, as a minimum:
- Total phosphorus (TP)
  - Orthophosphate (PO<sub>4</sub>-2)
  - Nitrate (NO<sub>3</sub>-2)
  - Total ammonia
  - Chemical Oxygen Demand (COD)
  - E. coli
  - Dissolved oxygen
  - pH

Such monitoring must be made available upon request.

19. A monitoring network must be installed prior to the installation of the underground storage tank and must include the following:
- 19.1 At least two monitoring boreholes are recommended to detect any potential contaminants.
- The boreholes must be drilled to a depth of 20m and must be at least 165mm in diameter.
  - The boreholes must be fitted with slotted, class 12, flush-fit, threaded ends, uPVC with an end cap (slots ideally from 2m down).
  - The gravel pack in borehole annulus (typically 3-5 mm in diameter).
  - The top 2m of annulus must be filled with bentonite seal.
  - The borehole must be fitted with lockable protection and to be clearly marked.
- 19.2 Water levels and physical parameters should be recorded at least quarterly, with sampling and chemical analysis of major and trace anions and cations, inclusive of DOC, BTEX and VOC on a bi-annual basis.
- 19.3 Samples to be submitted to accredited SANAS laboratory and sample collection and transport as per laboratory standards.
20. A rapid response plan must be developed which includes specific measures to be implemented in case of an emergency situation including to but not limited to a sewage spill, hydrocarbon spillages or leakages or fires during construction.
21. The site camp and all mobile toilets must be situated more than 50m from any watercourses.
22. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape. Heritage remains may only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant Heritage Resources Authority.

Heritage remains include: meteorites, archaeological and/or paleontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artefacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; shipwrecks; and/or graves or unmarked human burials including grave goods and/or associated burial material.



## F. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the Holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.

### ***Amendment of Environmental Authorisation and EMPr***

2. If the Holder does not start with all listed activities and exceed the threshold of each listed activity within the period referred to in Section G, this Environmental Authorisation shall lapse for that activity, and a new application for Environmental Authorisation must be submitted to the relevant Competent Authority.

If the Holder wishes to extend a validity period specified in the Environmental Authorisation, an application for amendment in this regard must be made to the relevant Competent Authority prior to the expiry date of such a period.

#### **Note:**

- (a) Failure to lodge an application for amendment prior to the expiry of the validity period of the Environmental Authorisation will result in the lapsing of the Environmental Authorisation.
  - (b) It is an offence in terms of Section 49A(1)(a) of NEMA for a person to commence with a listed activity if the competent authority has not granted an Environmental Authorisation for the undertaking of the activity.
  - (c) An environmental authorisation may be amended where it relates to a change of ownership or transfer of rights and obligations.
  - (d) On application, if the competent authority decides to grant environmental authorisation, the competent authority may issue a single environmental authorisation or multiple environmental authorisations in the name of the same or different applicants covering all aspects for which authorisation is granted.
3. The Holder is required to notify the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated.

In assessing whether to amend or correct the EA, the Competent Authority may request information to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the Holder to apply for further authorisation in terms of the applicable legislation.

The onus is on the Holder to verify whether such changes to the environmental authorisation must be approved in writing by the relevant competent authority prior to the implementation thereof.

**Note:** An environmental authorisation may be amended or replaced without following a procedural requirement contained in the Regulations if the purpose is to correct an error and the correction does not change the rights and duties of any person materially

4. The manner and frequency for updating the EMPr is as follows:
  - (a) Any further amendments to the EMPr, other than those mentioned above, must be approved in writing by the relevant competent authority.
  - (b) An application for amendment to the EMPr must be submitted to the Competent Authority if any amendments are to be made to the impact management outcomes of the EMPr. Such amendment(s) may only be implemented once the amended EMPr has been approved by the competent authority.

The onus is however on the Holder to confirm the legislative process requirements for the above scenarios at that time.

5. Where an amendment to the impact management outcomes of an EMPr is required before an environmental audit is required in terms of the environmental authorisation, an EMPr may be amended on application by the Holder of the environmental authorisation.

## **Compliance with Environmental Authorisation and EMPr**

6. Non-compliance with a condition of this environmental authorisation or EMPr is an offence in terms of Section 49A(1)(c) of the National Environmental Management Act, 1998 (Act no. 107 of 1998, as amended).
7. This Environmental Authorisation is granted for a set period from the date of issue, during which period all the listed activities must be commenced with and concluded, including the post-construction rehabilitation; monitoring requirements and environmental auditing requirements which must be concluded.
8. This Environmental Authorisation is subject to compliance with all the peremptory conditions (i.e. 6 & 10 of Section E above). Failure to comply with all the peremptory conditions prior to the physical implementation of the activities (including site preparation) will render the entire EA null and void. Such physical activities shall be regarded to fall outside the scope of the Environmental Authorisation and shall be viewed as an offence in terms of Section 49A(1)(a) of NEMA.
9. In the event that the Environmental Authorisation should lapse, it is an offence in terms of Section 49A(1)(a) of NEMA for a person to commence with a listed activity, unless the competent authority has granted an Environmental Authorisation for the undertaking of the activity.
10. Offences in terms of the NEMA and the Environmental Impact Assessment Regulations, 2014, will render the offender liable for criminal prosecution.

## **G. APPEALS**

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date the notification of the decision was sent to the holder by the Competent Authority –
  - 1.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 (as amended) to the Appeal Administrator; and
  - 1.2. Submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.
2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date the holder of the decision sent notification of the decision to the registered I&APs–
  - 2.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 (as amended) to the Appeal Administrator; and
  - 2.2. Submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.
3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered I&AP and the Organ of State must submit their responding statements, if any, to the appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.
4. The appeal and the responding statement must be submitted to the Appeal Administrator at the address listed below:

By post:                      Western Cape Ministry of Local Government, Environmental Affairs and  
Development Planning  
Private Bag X9186  
CAPE TOWN  
8000

By facsimile:              (021) 483 4174; or

By hand: Appeal Administrator  
Attention: Mr Marius Venter (Tel: 021 483 3721)  
Room 809  
8<sup>th</sup> Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

**Note:** For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to [DEADP.Appeals@westerncape.gov.za](mailto:DEADP.Appeals@westerncape.gov.za).

5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from the Appeal Administrator at: Tel. (021) 483 3721, E-mail [DEADP.Appeals@westerncape.gov.za](mailto:DEADP.Appeals@westerncape.gov.za) or URL <http://www.westerncape.gov.za/eadp>.

## H. DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of this Environmental Authorisation shall not be responsible for any damages or losses suffered by the Holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

Yours faithfully

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**MR. ZAAIR TOEFY**  
**DIRECTOR: DEVELOPMENT MANAGEMENT**

**DATE OF DECISION: 26 OCTOBER 2023**

Copy:

Clinton Petersen (George Municipality)

Michael Bennett (Sharples Environmental Services)

Carla Swanepoel (Sharples Environmental Services)

Email: [clinton@george.gov.za](mailto:clinton@george.gov.za)

Email: [michael@sesc.net](mailto:michael@sesc.net)

Email: [carla@sesc.net](mailto:carla@sesc.net)

**FOR OFFICIAL USE ONLY:**

**EIA REFERENCE NUMBER:** 16/3/3/1/D2/17/0008/23

**NEAS REFERENCE:** WCP/EIA/0001271/23

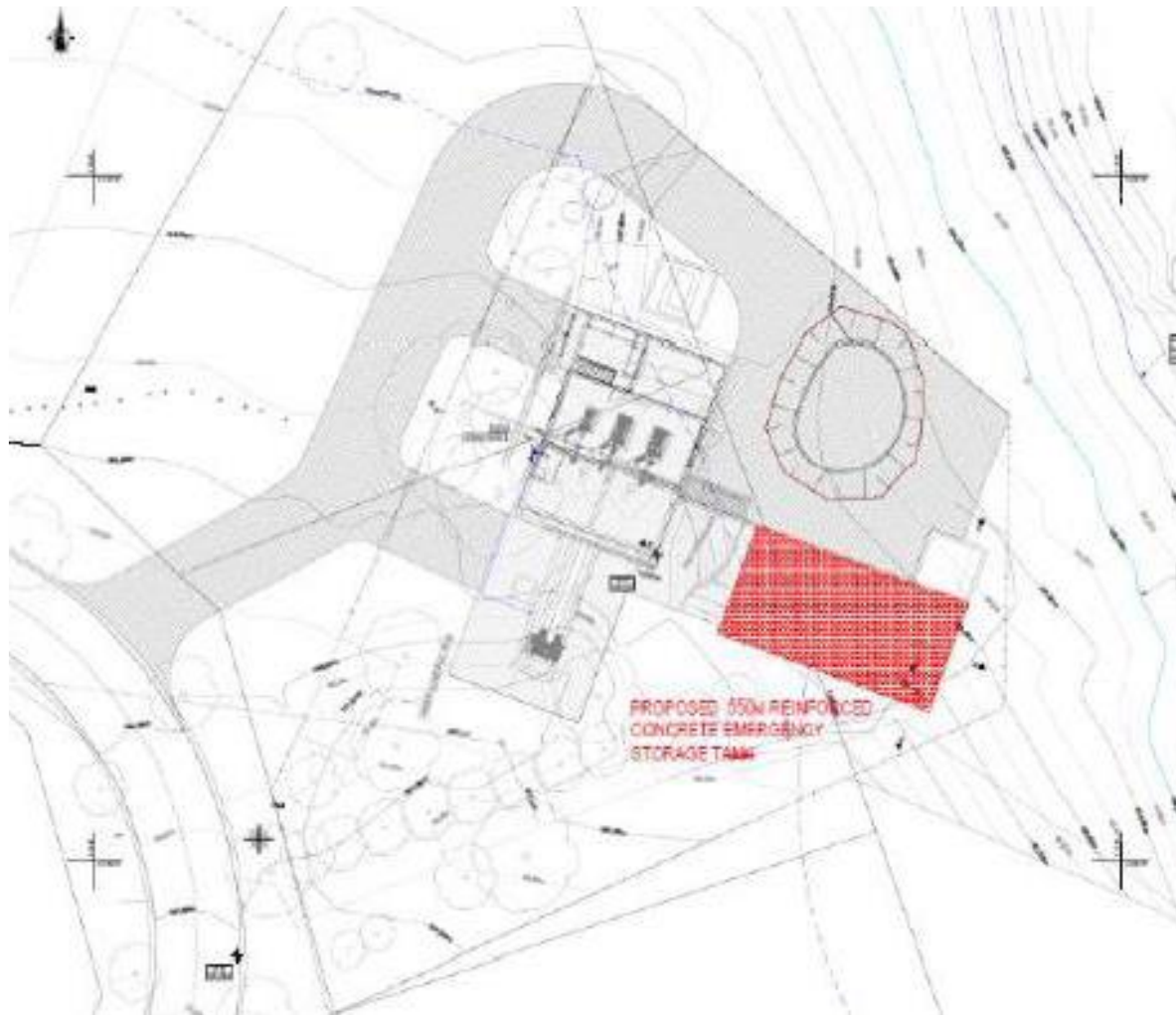
# ANNEXURE 1: LOCALITY MAP



## ANNEXURE 2: THE SITE



### ANNEXURE 3: SITE DEVELOPMENT PLAN



## ANNEXURE 4: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, *inter alia*, the following:

- a) The information contained in the Application Form received on 28 April 2023, the Final Basic Assessment Report (FBAR) and EMPr submitted together with the FBAR dated 10 July 2023;
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation, Alternatives (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);
- d) The comments received from I&APs and responses to these, included in the FBAR dated 10 July 2023;
- e) The balancing of negative and positive impacts and proposed mitigation measures;
- f) Adequate/Sufficient information was made available in the report to understand the environmental and spatial context and the case officer is familiar with the area; and
- g) The observations that were made during the site inspection conducted on 3 October 2023 by Ms. Shireen Pullen and Mr. Malcolm Fredericks from this Directorate.

All information presented to the Competent Authority was taken into account in the consideration of the application for Environmental Authorisation. A summary of the issues that were considered to be the most significant for the decision is set out below.

### 1. Public Participation

A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulation 2014 for public involvement. The public participation process included:

- Identification of and engagement with interested and affected parties (I&APs) including organs of state which have jurisdiction in respect of the activity to which the application relates;
- Letter drops to adjacent landowners;
- Giving written notice to the owners and occupiers of land adjacent to the site and any alternative site where the listed activities are to be undertaken;
- I&AP registration and commenting period: 12 May until 12 June 2023;
- Site Notices were placed on the site calling for I&APs to register and review the DBAR;
- Notices were given to the municipality and ward councillor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities;
- The placing of a newspaper advertisement in the 'George Herald' on 11 May 2023, to inform I&APs regarding the availability of the draft BAR between 12 May 2023 until 12 June 2023.

The following Organs of State were notified on the proposal:

- Department of Forestry
- Department of Environmental Affairs and Development Planning, Directorate: Pollution and Chemicals Management
- Civil Aviation Authority
- Breede-Olifants Catchment Management Agency (BOCMA)
- George Municipality
- Heritage Western Cape
- CapeNature
- SANParks

The following Organs of State provided comment on the proposal:

- Department of Environmental Affairs and Development Planning, Directorate: Pollution and Chemicals Management
- Department of Environmental Affairs and Development Planning, Directorate: Development Management, Region 3
- Western Cape Department of Agriculture: Land Use Management
- Department of Forestry

This Department's Directorate: Pollution and Chemicals Management (PCM) indicated their support for the proposed upgrade to minimise the frequency and magnitude of spillage events and increase capacity. They also indicated the need for a maintenance management plan for future maintenance works, which will be compiled and submitted prior to the completion of the construction phase. PCM also raised concerns regarding buffer areas, groundwater monitoring and emergency response measures, however, all issues raised were adequately addressed by the EAP and the measures incorporated into the EMPr.

This Directorate also raised concerns regarding the comparative assessment of alternatives and emergency measures and protocols in case of an emergency. The EAP sufficiently addressed all concerns raised.

The Garden Route Dam Action Group (GARDAG) raised concerns regarding among others, the possible surface / groundwater interaction and likely seepage into the Kat River and the Garden Route Dam. The EAP however responded by stating that there is limited to no evidence of a fluctuating shallow groundwater table with no groundwater intersected to a depth of 3.10mbgl or termination depth of the pits. Furthermore, they stated that the shallow subsurface mostly consists of impermeable silty clay, silty sand or clayey silt and weathered phyllite, thus indicating limited connectivity between surface water and the shallow groundwater and also supports the statement that limited groundwater table fluctuation is present, which is consistent with the weathering of phyllite, which underlies the site, to typically form clay. The groundwater level within GBHE07 is within the deeper fractured aquifer, thus, the fractured rock aquifer is indeed the pathway of concern. Furthermore, the UST will thus be positioned above the shallow groundwater table. The suggested mitigation of monitoring boreholes drilled into the fractured phyllite aquifer is thus deemed sufficient as an early leakage detection. Concerns regarding noise, impact on health and wellbeing, as well as visual impacts were also raised by GARDAG. Taking into consideration that this is an existing facility that preceded the EIA Regulations, these impacts is seen as existing and is not because of the proposed development. This and the EAPs responses to the aforementioned issues are deemed sufficient by this Directorate to address the concerns that were raised.

This Directorate is therefore satisfied that the mitigation measures proposed will effectively address the concerns raised by I&APs to ensure that the impacts on the receiving environment will be insignificant.

## 2. Consideration of Alternatives

During the planning phase, several Alternatives were considered by the municipality in order to find the best suited upgrades to the existing facility. The planning phase considered 6 options, which mainly pertains to the placement and shape of the emergency storage dam.

### **Alternative A- Preferred Alternative**

This alternative entails the upgrading and refurbishment of the existing Eden sewage pumpstation to industry standards and the formalisation of the temporary storage dam into a permanent emergency storage dam south-east of the pumpstation. The works will include, but not be limited to the following:

- The upgrade and refurbishment of the existing buildings.
- Upgrade of the inlet works to provide flow measurement, screening of solids, grit removal, flow diversion in the form of sluice gates and channels, rerouting of inlet pipes and refurbishment of corroded concrete structures.
- The storage capacity of the wet well (sump) will be assessed to establish whether additional storage is required.
- Improvements to the civil infrastructure at the pump station (including but not limited to pump room drainage sump, which does not pump leakage water back to the wet well; the faulty isolating valve on the rising main needs to be replaced; the suction pipes in the wet well are expected to be damaged or blocked and need attention; the wet well will need to be emptied and cleaned by a specialist contractor to gain man entry access for an inspection of the suction pipes and for the necessary repair/replacement; the hydraulic performance of the wet well and the suction pipe



arrangement will be investigated and overland stormwater drainage of the site needs to be better managed).

- In order to undertake the upgrades large trucks will have to access the site and turn within the site and as such the current gravel/ground access will be formalised by means of a 6m wide paved road from Dikkop Street and along the western boundary of the site and will turn right into the site.
- The fuel storage capacity will be increased by constructing an underground diesel fuel storage tank.
- Re-routing of the rising main where it is laid beneath a house from the pumpstation, within the roadway, to the corner of Pikkewyn and Stander Steet (Approximately 560m).
- The investigation of the hydraulic performance and condition of the rising main to determine which improvements may be required. A magflow meter will be provided on the rising main for measurement of flow from the pumpstation.
- Rerouting of approximate 100m of the recently constructed bulk gravity sewer to tie into the new inlet works (Parallel to Dikkop Street and to the west of the Pumpstation).
- The complete overhaul of the electrical equipment at the pump station.
- Assessment of the mechanical engineering equipment.
- Improvement of all the general site conditions.
- Subdivision and rezoning of portions of neighbouring land parcels that are encroached upon and will be further encroached upon by additional structures required (emergency storage tank).
- Emergency storage: two concrete tanks will be provided, a smaller emergency sump and a larger emergency storage tank, both structures will be located inside the existing boundaries of the facility. The emergency sump will be sized for a volume of 45kl to allow drainage of pipework and the dry-well during maintenance or emergencies. The emergency storage tank will be designed with a capacity of approximately 550kl. This is equivalent to 5.3 hours of emergency storage capacity at ADWF (28.90 l/s) and 4.0 hours at PDWF (37.77 l/s).
- Mitigation of the risk of overflows during power outages (a 4500-litre fuel storage tank will be installed, the tank will be underground and situated in the eastern corner of the site, north of the proposed emergency storage tank).

The proposed permanent storage dam will be located south-east of the existing pumpstation and will be a Rectangular Emergency Storage Tank.

The development will be implemented approximate to the site development plan contained in Annexure 2 of this authorisation.

### **Alternative B**

This alternative entails the upgrading and refurbishment of the existing Eden sewage pumpstation to industry standards and the formalisation of the temporary storage dam into a permanent emergency storage dam south-east of the pumpstation. This alternative is exactly the same as the preferred alternative however, it includes a Circular Emergency Storage Tank located North of the existing facility, with the emergency pond remaining operational until construction of the proposed tank is complete.

This is not considered the preferred alternative due to the long distance from the proposed tank to the wet well; rezoning requirements since the tank encroaches into the environmentally protected area north of the site towards the Kat River. There is also a possibility of high groundwater seepage during construction.

### **Alternative C - "No-Go" Alternative**

The option of not implementing the activity means that no upgrade to the Eden Pumpstation will be undertaken, meaning that the technology will remain outdated and ongoing sewage spills will occur due to malfunctions in the pumpstation equipment.

### 3. Impact Assessment and Mitigation Measures

#### 3.1 Activity need and desirability

The BAR submits that sewer systems are essential to the wellbeing of a community as they help to transport wastewater filled with bacteria out of the area and to a place where it can be treated, to ensure that clean water can be safely distributed back into the environment.

Due to ongoing spillages into the adjacent water sources, this Directorate issued the Municipality with a Directive in terms of Section 30A of the National Environmental Management Act, 1998 (Act No. 107 of 1998) related to the implementation of the proposed emergency works or interventions to prevent the spillage of raw sewage into the Garden Route Dam (GRD). This included the construction of a temporary storage dam for sewage overflow because of malfunctions at the Eden Pumpstation. The purpose of the proposed development is to put a permanent solution in place by means of upgrades, refurbishments and a construction of a permanent emergency storage dam/tank to prevent any potential spillage of sewage into the Garden Route Dam.

According to the BAR the spillage of sewage into the Garden Route Dam promotes the growth of Kariba weed as this species thrives in nutrient-rich water. This weed grows rapidly and can quickly cover the entire surface of (small and medium-sized) waterbodies with a thick mat of vegetation, shading out any submerged plant life. Dense infestations can also impede oxygen exchange and light availability in the water column below, reducing water quality and causing the death of primary producers and disrupting the freshwater food chain. Dense mats impede navigation, fishing and recreational activities and provide breeding places for vectors of malaria and bilharzia. To prevent this, sewage spills need to be prevented.

The pump station is located directly adjacent to the Kat River, which is the primary source of raw water influx into the George and Wilderness areas. Preventing raw sewage from polluting the river is therefore of vital importance for the municipality and the receiving environment.

#### 3.2 Impacts

##### *Geohydrological Impact*

According to the geohydrological report, the aquifer vulnerability of the site is classified as "moderate" according to the DRASTIC<sup>1</sup> method, which is consistent with the Aquifer System Management Index and Groundwater Quality Management index of "medium". This rating is associated with the fractured nature of the deeper bedrock, which is slightly susceptible to contamination. The upper material is, however, impermeable clay, resulting in a lower susceptibility to contamination and explains the "medium" rating, as this would provide some barrier against any potential contamination. It is further stated that given the medium vulnerability rating of the aquifer, the "Source-Pathway-Receptor" principle is applied to determine the impact of the planned installation of the underground diesel storage tank. This is applied to both the construction and operational phase. Identified sources of contamination include spillages of toxic and harmful chemicals and leakages from the UST and associated pipework. The underlying aquifer, which includes the vadose zone and deeper, fractured aquifer, represents both a pathway for contaminants as well as being a receptor. Further receptors include groundwater users and the environment.

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- <sup>1</sup> DRASTIC is a methodology which allows the pollution potential of any area to be systematically evaluated. The system optimizes the use of existing data and has two major portions: the designation of mappable units, termed hydrogeological settings, and the superposition of a relative ranking system called DRASTIC. Hydrogeological settings incorporate the major hydrogeological factors, which are used to infer the potential for contaminants to enter groundwater. These factors form the acronym DRASTIC and include depth to water, net recharge, aquifer media, soil media, topography, impact of the vadose zone, and hydraulic conductivity of the aquifer. The relative ranking scheme uses a combination of weights and ratings to produce a numerical value, called the DRASTIC index, which helps in giving priority to areas with respect to pollution potential.- January 1987 [Journal of the Geological Society of India](#) 29(1)

With the above in mind, the risk assigned to the construction and operational phase of the proposed UST is classified as minor-negative. It should be noted that the groundwater level within the borehole on-site was measured at 4.21 mbgl, which would bring the UST in close proximity of the groundwater level. The specialist report included certain mitigation measures and recommendations which was included as conditions of this approval.

### 3.3 Freshwater Impact

The pumpstation is located in a quaternary catchment K30C of the Kromme Primary Catchment. The pump station is located within close proximity of the Kat River, which flows into the Garden Route Dam, the main drinking water supply for George. The site has not been classified as a Freshwater Ecosystem Priority Area (FEPA). The dam and its catchment area therefore fall within an SQC that is not considered as being a priority for maintaining freshwater biodiversity at a national scale. Given the highly modified nature of the watercourse the dam is not regarded as important from an ecological or conservation perspective.

According to the BAR the watercourse and its ecology have been fundamentally altered from river or wetland habitat into a dam and there are no recognised methods to determine the present ecological state (PES). The majority of the catchment area drains into the Swart River from the Outeniqua Mountain Range which is characterised by old forestry plantations (in the lower foothills) and natural fynbos vegetation in the higher altitudes. The quality of water flowing into the dam is therefore generally very good.

The BAR further submits that the Kat River catchment area does drain a large urban area of George and thus does contribute pollutants typical of stormwater from urban areas, including nutrients, sediment and metals and hydrocarbons from road surfaces. In addition, historical spills from the Eden pumpstation have also contributed raw sewage into the dam which is one of the main reasons for the proposed development. Such pollutant sources have undoubtedly led to increased nutrient levels of the dam, which has most likely contributed to outbreaks of the alien invasive *Salvinia molesta* (Kariba Weed) that have occurred in the dam over the past few years.

### 3.4 Biodiversity

According to the BAR a small portion of the site is situated within an area of the Kat River Nature Reserve which was declared a local nature reserve in 1989. The pump station has been at the same site for more than 40 years, i.e., before the area was declared a nature reserve. Although the proposed upgrades will not be in line with the protected area management plan, the proposal as a whole is to mitigate the sewage inputs into the Garden Route Dam which have occurred due to aging and outdated infrastructure.

The site is entirely transformed by the construction of the pumpstation approximately 40 years ago. The only sensitive species on site is a few yellow wood trees (*Afrocarpus falcatus*) which are protected in terms of the National Forest Act, 1998 (Act No 84 of 1998). Some of the trees will have to be removed to accommodate the upgrades and the new proposed emergency storage dam/tank. Permits will be required to remove the yellowwoods and the permit conditions are likely to contain offsets in the form of planting of yellowwood saplings.

### 3.5 Heritage / Archaeological Aspects

The proposal will be undertaken almost completely within the existing footprint of the facility and as such the National Heritage Resources Act (NHRA) will not be triggered by the proposal. Considering the afore-mentioned, the view is held that the applicant has adequately considered the heritage and archaeological aspects and that the proposed development will not result in significant negative impacts on any heritage resources. The competent authority is satisfied that the evaluation fulfils the

requirements of the relevant heritage resources authority in terms of the National Heritage Resources Act, 1999.

### 3.6 Other Impacts

According to the BAR no other impacts of significance were identified and anticipated.

## 4. Scope and Validity Period of authorisation

This environmental authorisation does not define specific operational aspects. The applicant has not given any indication of how long construction would take, however, given the urgency of the upgrades, the development should be fully implemented within 5 years from the date of issue of this environmental authorisation. Where the activity has been commenced with, the EIA Regulations, 2014 allow that (upon application) the period for which the environmental authorisation is granted may be extended for a further period of 5-years.

## 5. National Environmental Management Act Principles

The National Environmental Management Principles (set out in section 2 of the NEMA, which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

## 6. Conclusion

After consideration of the information and factors listed above, the Department made the following findings:

- (a) The identification and assessment of impacts that are detailed in the FBAR dated 10 July 2023 is sufficient.
- (b) The procedure followed for the impact assessment is adequate for the decision-making process.
- (c) The proposed mitigation of impacts identified and assessed, curtails the identified negative impacts.
- (d) The proposed mitigation measures included in the EMPr for the pre-construction, construction and rehabilitation phases of the development is considered adequate.

***In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the mitigation measures contained in the EMPr, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.***

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