

GEORGE

TEL: +27 (0) 44 873 4923 FAX: +27 (0) 44 874 5953 EMAIL: info@sescc.net WEBSITE: www.sescc.net ADDRESS: Unit 17 Cathedral Square, Cathedral Street, George, 6530 PO BOX: 9087, George, 6530

CAPE TOWN

TEL: +27 (0) 21 554 5195 FAX: +27 (0) 86 575 2869 EMAIL: betsy@sescc.net WEBSITE: www.sescc.net ADDRESS: Tableview, Cape Town, 7441 PO BOX: 443, Milnerton, 7435

ENVIRONMENTAL AUDIT REPORT

FOR THE

MOLEN CLOSE RIVER REHABILITATION REMAINDER OF FARM 464, GEORGE, WESTERN CAPE

PREPARED FOR: George Municipality

Lionel Daniels PO Box 19 George 6530

REPORT NR: EAR/MCRR/F464G/WC/12/24

DEADP REF NO: 16/3/3/1/D2/48/0027/22

COPY TO: Danie Swanepoel – DEADP

Shireen Pullen - DEADP

Louise-Mari van Zyl – Cape EAPrac

• Environmental Impact Assessments • Basic Assessments • Environmental Management Planning

[•] Environmental Control & Monitoring • Water Use License Applications • Aquatic Assessments



DATE: 03 December 2024

PROJECT DETAILS

TITLE: Proposed Molen Close River Rehabilitation

Remainder of Farm 464, George, Western Cape.

LOCATION: George, Western Cape

ENVIRONMENTAL CONSULTANCY: Sharples Environmental Services cc.

PRIMARY AUDITOR Mr. M. Bennett.

EXPERTISE: Michael studied at the University of Cape Town

completing a Bachelor of Science degree majoring in Environmental and Geographic Sciences and Ocean and Atmospheric Science.

Michael joined SES in 2014.

SECONDARY AUDITOR & AUTHOR: Mr. C. Smit.

EXPERTISE:

Christiaan graduated from the University of Stellenbosch completing his Masters on the

Ocean Economy and also holds a BSc in Biodiversity and Ecology with a Post Graduate Diploma in Environmental Management. He is well versed in the technicalities associated with Monitoring and has ensured that all of the sites he has worked on have been environmentally acceptable. Christiaan is registered with EAPASA as a Candidae Environmental Assessment

Practitioner.

CLIENT: George Municipality

REPORT CLASSIFICATION: Environmental Audit Report

SES REFERENCE NUMBER: EAR/MCRR/F464G/WC/12/24

Conditions of use:

The report is the property of the sponsor, Sharples Environmental Services cc (SES), who may publish it, in whole provided that:

- Approval for copy is obtained from SES.
- II. SES is acknowledged in the publication.
- III. SES is indemnified against and claim for damages that may result from publication of specifications, recommendations or statements that is not administered or controlled by SES.
- IV. That approval is obtained from SES if this report is to be used for the purposes of sale, publicity or advertisement.

Table of Contents:

1.	Introduction:	4
2.	Methodology:	6
3.	Assumptions, Uncertainties and Gaps in Knowledge:	7
4.	Location, Scope of the Development, and Photo Record:	8
	4.1 Location	8
	4.2 Scope:	9
6. E	A (16/3/3/1/D2/48/0027/22) Compliance:	15
7. EI	MPr Compliance:	27
6.	Recommendations:	39
<u>Tab</u>	ole of Figures:	
Figu	re 1: Locality Map	8
Figu	re 2: Close-Up of Rehabilitation Work	8
Figu	re 3: Positioning of gabions along Erf 21150 and Erf 21151	9
Figu	re 4: Generic cross-section for how gabions/reno mattrasses will be installed along the riverbank	9
<u>List</u>	of Tables:	
Tabl	le 1: Objectives of the Audit Report:	5
Tabl	le 2: Content of the Audit Report:	5
Tabl	le 3: Key Sources Used in this Audit Report:	6

1. Introduction:

Sharples Environmental Services cc (SES) has been appointed by the George Municipality(client), to conduct an External Environmental Audit pertaining to the construction activities for the Proposed Molen Close River Rehabilitation Remainder of Farm 464, George, Western Cape. The project has been authorised under the Environmental Authorisation (EA) (EA Ref No: 16/3/3/1/D2/48/0027/22) issued on the 6th of February 2018.

The purpose of this Audit Report is to comply with condition 14, 15, 16 and 17 of the EA (16/3/3/1/D2/48/0027/22) which states that:

- 14. The Holder must, for the period during which the environmental authorisation and EMMPr remain valid ensure the compliance with the conditions of the environmental authorisation and the EMMPr, is audited;
- 15. The frequency of auditing of compliance with the conditions of the environmental authorisation and of compliance with the EMMPr, must adhere to the following programme:
 - 15.1. A final Environmental Audit Report must be submitted to the Competent Authority within **three** (3) months of the conclusion of the stabilization, rehabilitation and monitoring requirements thereof.
 - 15.2. An audit report must also be submitted each time after maintenance activities are concluded,
- 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
 - o 16.2.1. the level of compliance with the conditions of the environmental authorisation, EMMP and the EMMPr and whether this is sufficient or not; and
 - 16.2.2. the ability of the measures contained in the EMMPr 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 EMMPr or both;
 - 16.5. identify shortcomings in the EMMPr;
 - 16.6. identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMMPr;
 - 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).

The findings and recommendations in this report are based on evidence gathered from Cape EAPrac Environmental Consultants who were employed as the Environmental Control Officer of the development and have monitored compliance with the EA and EMPr.

According to Appendix 7 of the Environmental Impact Assessment Regulations, 2014, published under Government Notice No. 982 in Gazette No. 3822 of December 2014, in terms of Sections 24(5) and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998); The objective of the audit report is to:

Table 1: Objectives of the Audit Report:

2. The objective of the environmental audit report is to –

- (a) Report on -
- i) The level of compliance with the conditions of the environmental authorisation and the EMPr, and where applicable, the closure plan; and
- ii) The extent to which the avoidance, management and mitigation measures provided for in the EMPr, and where applicable, the closure plan achieves the objectives and outcomes of the EMPr, and closure plan
- (b) Identify and assess any new impacts and risks as a result of undertaking the activity.
- (c) Evaluate the effectiveness of the EMPr, and where applicable, the closure plan.
- (d) Identify shortcomings in the EMPr, and where applicable, the closure plan; and
- **(e)** Identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr, and where applicable, the closure plan.

In addition, Appendix 7 also refers to the content of the Environmental Audit Report:

Table 2: Content of the Audit Report:

Table 2. Comen of the Addi Report.					
3. An environmental audit report prepared in terms of the					
(a) Details of the –	Annexure A				
i) Independent person who prepared					
the environmental audit report; and					
ii) Expertise of the independent person					
that compiled the environmental					
audit report;					
(b) a declaration that the independent auditor is	Annexure B				
independent in a form as may be specified by the					
competent authority;					
(c) an indication of the scope of, and the purpose	Section 1 and 3				
for which, the environmental audit report was					
prepared;					
(d) a description of the methodology adopted in	Section 2				
preparing the environmental audit report;					
(e) an indication of the ability of the EMPr, and	Section 6				
where applicable, the closure plan to –					
i) Sufficiently provide for the avoidance,					
management and mitigation of					
environmental impacts associated					
with the undertaking of the activity on					
an on going basis;					
ii) Sufficiently provide for the avoidance,					
management and mitigation of					
environmental impacts associated					
with the closure plan of the facility;					
and					
iii) Ensure compliance with the provisions					
of environmental authorisation, EMPr,					
and where applicable, the closure					
plan;					
(f) a description of any assumptions made, and	Section 4				
any uncertainties or gaps in knowledge;					
(g) a description of any consultation process that	Section 2				
was undertaken during the course of carrying out					
the environmental audit report;					
(h) a summary and copies of any comments that	Section 2				
were received during any consultation process;					
(i) any other information requested by the	NA				
competent authority					

2. Methodology:

After being appointed, Cape EAPrac Environmental Consultants provided Sharples Environmental Services cc with the relevant information pertaining to the Proposed Molen Close River Rehabilitation Remainder of Farm 464. Following this a site visit was conducted by Mr. Christiaan Smit of Sharples Environmental Services cc on the 11th of November 2024 to establish the site evidence supporting the Audit Report outcome. To conduct the audit of this report, a systematic review approach was followed regarding the information provided and the conditions and objectives of the EA and EMMPr, to determine compliance with the EA and EMMPr for the Molen Close River Rehabilitation.

The table below depicts the key sources that were used to assess the compliance with the EA and EMMPr:

<u>Table 3: Key Sources Used in this Audit Report:</u>

Source	Content Content	Reference	Appendix no.
Environmental Authorisation	Section E: Conditions of Authorisation.	16/3/3/1/D2/48/0027/22	1
Environmental Mitigations; Pre- Management & Construction Design Considerations; Construction Considerations and Operational/Maintenance Phase Environmental Management Requirements.		GEO752/10	2
EA Cover Letter	Departments letter granting Environmental Authorisation.	16/3/3/1/D2/48/0027/22	3
EA Notification Letter to I&AP's	Notification of the decision of EA and appeal period to I&AP's.	16/3/3/1/D2/48/0027/22 and MOS752/09	4
Notification of EA to Authorities on decision including EA Notification Letter.		Complied by Mariska Byleveld of Cape EAPrac.	5
Notification of EA E-mail to I&AP's on decision including EA Notification Letter.		Complied by Mariska Byleveld of Cape EAPrac.	6
7-Day Notice of Commencement 7-Day notice letter, notifying the department of the commencement of activities.		16/3/3/1/D2/48/0027/22 and GEO752/10	7
ECO Report May & Monitoring compliance with the EMMPr and EA for the months of May and June 2023.		GEO752	8
ECO Report July Monitoring compliance with the EMMPr and EA for the month of July 2023.		GEO752	9
ECO Report August Monitoring compliance with the EMMPr and EA for the month of August 2023.		GEO752	10
ECO Completion Final ECO report and completion report of project.		GEO752/11	11
No Appeals Proof	Proof from DEADP that no appeals were lodged.	Molen Close River Rehab_16.3.3.1.D2.48.00027.22	12

3. Assumptions, Uncertainties and Gaps in Knowledge:

SES has compiled this Audit Report based on information and observations that were received from the ECO of the Molen Close River Rehabilitation project, Cape Environmental Consultants (Pty) Ltd, it is assumed that all parties involved in the process had the agenda of best practice. It is assumed that no evidence has been withheld from the Auditor (SES), and where documents or evidence could not be received or found it is assumed that those documents or evidence do not exist unless verbally specified otherwise by the ECO.

Uncertainties and gaps in knowledge include:

- The holder is responsible for ensuring compliance with the conditions of the EA, therefore the holder should have ensured that the project was audited within the 3 month threshold after completion of the stabilization, rehabilitation and monitoring activities.
- The final audit report was not undertaken within the 3 month threshold. This is regarded as Non-Compliance (low) because Sharples Environmental Services cc has been appointed and the audit has now been conducted, a final environmental completion report was also submitted by Cape Environmental Assessment Practitioners (Pty) Ltd upon completion of the works.
- As per the ECO Completion Report Considering cost implications, only the disturbed areas were rehabilitated with kweek grass and indigenous trees.

4. Location, Scope of the Development, and Photo Record:

4.1 Location

The site is located along a riverbank of the Meul River on Remainder of farm 464 in Rosemoor, George. The area where the rehabilitation works were conducted consists of a small section along the eastern embankment of the river, which is located in close proximity to Erven 21150 and 21151 along Molen Close Street.

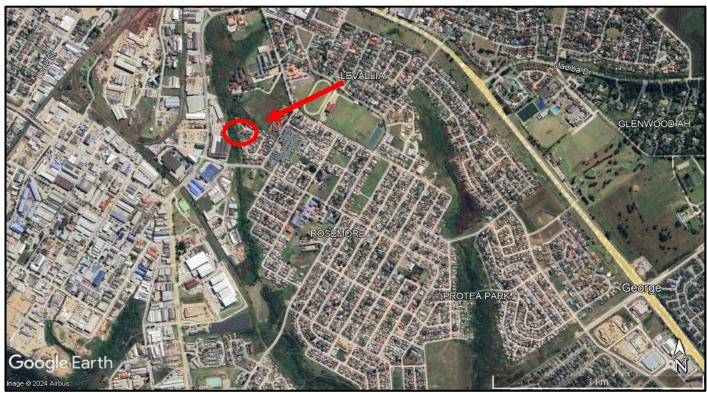


Figure 1: Locality Map.



Figure 2: Close-Up of Rehabilitation Work.

4.2 Scope:

The development entailed the stabilization of the embankment of the Meul River riverbank by the placement of reno mattresses and gabions inside the perennial watercourse along Erven 21150 and 21151. The gabions were positioned in a curving manner to preserve the flow's characteristics and to prevent any further erosion. The rehabilitation works were implemented according to Figure 3 and 4 below.

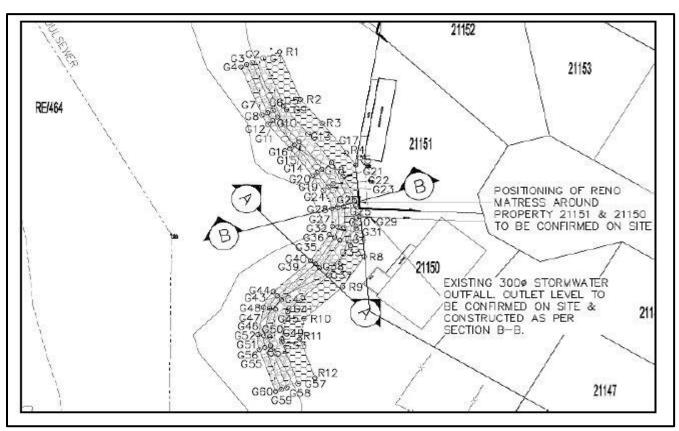


Figure 3: Positioning of gabions along Erf 21150 and Erf 21151

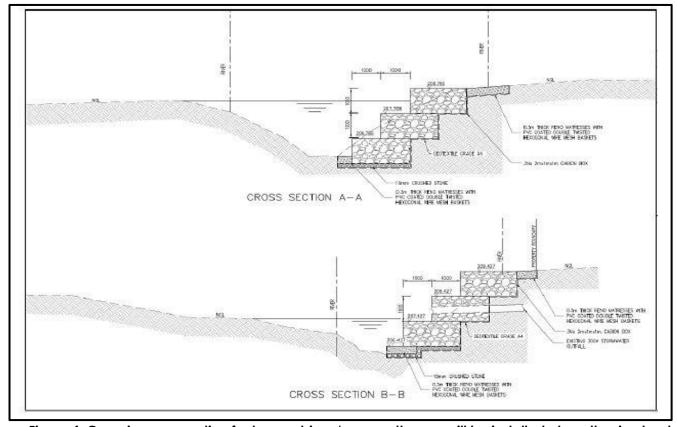


Figure 4: Generic cross-section for how gabions/reno mattrasses will be installed along the riverbank.

The activity involved temporarily and partially diverting the stream within the streambed to facilitate the construction of the gabion boxes along the eastern riverbank. An existing stormwater outlet located at the perimeter of Erf 21150 (Which exacerbated the bank erosion) was temporarily diverted by placing sandbags in the proposed area of construction. After construction, the streambeds and the embankments were re-instated and rehabilitated.

Temporary access to the site was accessed via Grens Street where it crosses the Molen River, along the elevated eastern bank of the Meul River, the access was rehabilitated once construction was completed.

The listed activities also include maintenance activities for a period of 5 years, which includes visual maintenance and inspection followed by physical maintenance if and as required. The maintenance activities are only limited to structures and rehabilitation measures included in the Environmental Authorisation (Ref: 16/3/3/1/D2/48/0027/22).

4.3 Photo record:

The images bellow show the current state of the site at the time of our site visit on the 11th of November 2024.



Image 1: Gabions that have been installed.



Image 2: Gabions that have been installed.



Image 3: Gabions that have been installed and stockpile area that has been rehabilitated.



Image 4: Stockpile area that has been rehabilitated.



Image 5: Gabions that have been installed.



Image 6: Gabions that have been installed and kweek grass that has been planted.

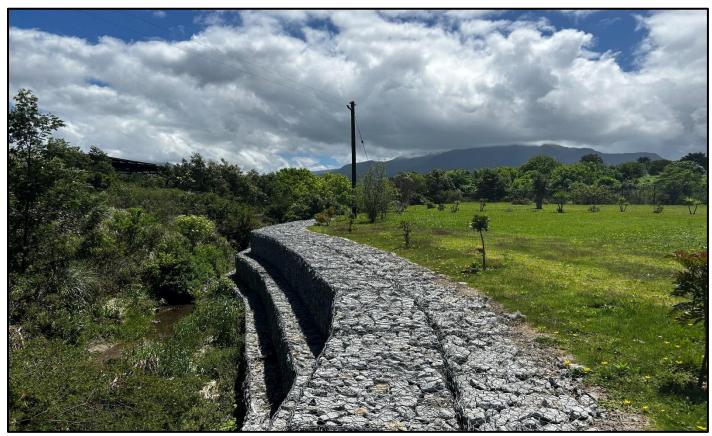


Image 7: Gabions that have been installed, work area that has been rehabiltated and trees that have been planted.



Image 8: Gabions that have been installed and work area that has been rehabilitated.



Image 9: Gabions that have been installed and work area that has been rehabilitated.

5. EA (16/3/3/1/D2/48/0027/22) Compliance:

The following checklist was used to assess the level of compliance to the conditions contained within the EA, as stipulated in Section E (Conditions of Authorisation) of the EA. To assess the level of compliance, the following table is applicable:

Full Compliance	Successful adherence to the condition (to be continued, if
Partial Compliance	applicable) Adherence to some conditions, whilst action/effort required in
Non - Compliance	other regards. Can be high or low (see checklist below). Does not adhere to the condition.
Not yet applicable	Not yet applicable to this audit or still to be done

Partial and Non-Compliance Checklist:

High	In which case the duration, extent, local impact and regional impact of the environmental impact is high.
Low	In which case the duration, extent, local impact and regional impact of the environmental impact is low.

No.	Conditions	Compliance	Comments/Observations
1.	This Environmental Authorisation is granted for the period from date of issue until 30 April 2028 to commence and complete all the listed activities, rehabilitation and monitoring requirements. A further 5 years until 30 April 2033 is granted for maintenance activities to the rehabilitated area where the new structures are installed. Failing which, this Environmental Authorisation and Environmental Management and Maintenance Programme (EMMPr) 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).	Full Compliance (to date)	The listed activities have been completed as stipulated in the ECO completion report that was submitted on the 12 th of December 2023, this condition is marked as full compliance (to date) because an additional 5 years until 30 April 2033 have been granted for maintenance activities to rehabilitate the area where the new structures are installed.

No.	Conditions	Compliance	Comments/Observations
2.	The Holder is authorised to undertake the listed activities specified in Section B above in accordance with a part of the Preferred Alternative described in the FBAR dated 14 December 2022 on the site as described in Section C above. The development entails the stabilization of the embankment of the Meul Riverbank by the placement of reno mattrasses and gabions inside the perennial watercourse along Erven 21150 and 21151, Rosemoor, George. The reno mattrasses and gabions will be positioned in a curving manner to preserve the flow's characteristics and to prevent further erosion as per Annexure 2 of this authorisation. The activity includes temporarily and partially diverting the stream within the streambed to facilitate construction of the gabion boxes along the eastern riverbank. The existing stormwater pipe that discharges at this point (partially responsible for the eroded bank) stormwater will also be diverted by placing sandbags in the proposed area of construction. After construction, the streambed and embankments will be reinstated and rehabilitated. Temporary access to the site will be via Grens Street where it crosses the Molen River, along the elevated eastern bank of the Meul River. This access will be rehabilitated once construction is complete.	Full Compliance	As per the ECO reports and the ECO completion report, the activities listed in condition 2 of the EA have been completed.

No.	Conditions	Compliance	Comments/Observations
3.	This Environmental Authorisation may only be implemented in accordance with an approved Environmental Management & Maintenance Programme ("EMMPr").	Full Compliance	The EA was implemented in accordance with the approved EMMPr, as per the ECO reports.
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.	Partial Compliance (low)	The holder is responsible for ensuring compliance with the conditions of the EA, therefore the holder should have ensured that the project was audited within the 3 month threshold after completion of the stabilization, rehabilitation and monitoring activities.
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.	Full Compliance	No changes or deviations from the original scope have occurred throughout the rehabilitation works.
6.	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—	Full Compliance	All I&AP's were notified within 14 days, refer to Appendix 5 and 6 of this report.
	6.1.1. the decision reached on the application;	Full Compliance	Refer to Appendix 4 of this report.
	6.1.2. the reasons for the decision as included in Annexure 3;	Full Compliance	Refer to Appendix 4 of this report.

No.	Conditions	Compliance	Comments/Observations
	6.1.3. the date of the decision; and	Full Compliance	Refer to Appendix 4 of this report.
	6.1.4. the date when the decision was issued.	Full Compliance	Refer to Appendix 4 of this report.
	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;	Full Compliance	Refer to Appendix 4 of this report.
	6.3. draw the attention of all registered I&APs to the manner in which they may access the decision;	Full Compliance	Refer to Appendix 4 of this report.
	6.4. provide the registered I&APs with the:6.4.1. name of the Holder (entity) of this Environmental Authorisation,	Full Compliance	Refer to Appendix 4 of this report.
	6.4.2. name of the responsible person for this Environmental Authorisation,	Full Compliance	Refer to Appendix 4 of this report.
	6.4.3. postal address of the Holder,	Full Compliance	Refer to Appendix 4 of this report.
	6.4.4. telephonic and fax details of the Holder,	Full Compliance	Refer to Appendix 4 of this report.
	6.4.5. e-mail address, if any, of the Holder,	Full Compliance	Refer to Appendix 4 of this report.

No.	Conditions	Compliance	Comments/Observations
	6.4.6. contact details (postal and/or physical address, contact number, facsimile and email 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).	Full Compliance	Refer to Appendix 4 of this report.
	6.5. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the holder notifies the registered I&APs of this decision.	Full Compliance	The holder notified the registered I&AP's of the decision on the 8 th of May 2023, according to the 7-day notice, construction commenced on the 1 st of June 2023.
	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.	Not Applicable	No appeals were lodged, see Appendix 12.
7.	Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction activities.	Full Compliance	Proof of the 7-day notice of commencement letter was provided, please refer to Appendix 7 of this report.
	7.1. The notice must make clear reference to the site details and EIA Reference number given above.	Full Compliance	The 7-day notice letter makes clear reference to the site details and EIA Reference number, please refer to Appendix 7 of this report.
	7.2. The notice must also include proof of compliance with the following conditions described herein: Condition no.: 6, 10 and 18	Full Compliance	Proof of compliance with condition no. 6, 10 and 18 was provided in the 7-day notice letter, please refer to Appendix 7 of this report.
8.	The draft Environmental Management & Maintenance Programme ("EMMPr") dated 14 December 2022 and submitted as part of the application for Environmental Authorisation is hereby approved and agreed to.	Full Compliance	EMMPr was approved and implemented.

No.	Conditions	Compliance	Comments/Observations
	8.1. With reference to the EMMPr, kindly note: 8.1.1. All references to 'operational phase' in the EMMPr are also regarded to include maintenance;	Full Compliance	EMMPr was approved and implemented.
	8.1.2. Comply with section 24N of the National Environmental Management Act, 1998 and Appendix 4 of the Environmental Impact Assessment Regulations, 2014;	Full Compliance	EMMPr was approved and implemented.
9.	The EMMPr must be included in all contract documentation for all phases of implementation.	Full Compliance	Confirmed by Cape EAPrac.
10.	The Holder must appoint a suitably experienced Environmental Control Officer ("ECO"), for the duration of the construction and rehabilitation phases of implementation contained herein.	Full Compliance	Cape Environmental Assessment Practitioners (Pty) Ltd were appointed as ECO for the project.
11.	The ECO must– 11.1. be appointed prior to commencement of any construction works	Full Compliance	Cape Environmental Assessment Practitioners (Pty) Ltd were appointed as ECO prior to the commencement of construction works.
	11.2. ensure compliance with the EMMPr and the conditions contained herein;	Full Compliance	Monthly ECO reports were submitted by Cape Environmental Assessment Practitioners (Pty) Ltd during the construction process, monitoring compliance with the EA and EMMPr.
	11.3. keep record of all activities on the site; problems identified; transgressions noted and a task schedule of tasks undertaken by the ECO;	Full Compliance	Monthly ECO reports were submitted by Cape Environmental Assessment Practitioners (Pty) Ltd during the construction process, monitoring compliance with the EA and EMMPr.
	11.4. remain employed until all development activities are concluded, and the post construction rehabilitation and monitoring requirements are finalised.	Full Compliance	Cape Environmental Assessment Practitioners (Pty) Ltd remained employed until the development activities concluded, and the post construction rehabilitation and monitoring requirements were finalised.
12.	A copy of the Environmental Authorisation, EMMPr, any independent assessments of financial provision for rehabilitation and environmental liability, audit reports and compliance monitoring reports must be kept	Full Compliance	Cape Environmental Assessment Practitioners (Pty) Ltd have confirmed that this condition had been complied with and that copies of the EA and EMMPr were kept on site.

No.	Conditions	Compliance	Comments/Observations
	at the site of the authorised activities and be made available to anyone on request, and where the Holder has 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.	Full Compliance	Cape Environmental Assessment Practitioners (Pty) Ltd have confirmed that this condition had been complied with, the case officer from DEADP (Shireen Pullen) conducted a compliance inspection on the 24 th of October 2024.
14.	The Holder must, for the period during which the environmental authorisation and EMMPr remain valid ensure the compliance with the conditions of the environmental authorisation and the EMMPr, is audited;	Full Compliance	Monthly audits were submitted by Cape EAPrac Environmental Consultants throughout the construction phase. Sharples Environmental Services cc have also been appointed by the Holder to conduct the external audit.
15.	The frequency of auditing of compliance with the conditions of the environmental authorisation and of compliance with the EMMPr, must adhere to the following programme: 15.1. A final Environmental Audit Report must be submitted to the Competent Authority within three (3) months of the conclusion of the stabilization, rehabilitation and monitoring requirements thereof.	Non- compliance (low)	The final audit report was not undertaken within the 3 month threshold, however this is regarded as Non-Compliance (low) because Sharples Environmental Services co has been appointed and the audit has now been conducted, a final environmental completion report was also submitted by Cape Environmental Assessment Practitioners (Pty) Ltd upon completion of the works.
	15.2. An audit report must also be submitted each time after maintenance activities are concluded,	Not Yet Applicable	Still to be done.

No.	Conditions	Compliance	Comments/Observations
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;	Full Compliance	Audit Report will be submitted by Sharples Environmental Services cc.
	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, EMMP and the EMMPr and whether this is sufficient or not; and		See Audit Report.
	16.2.2. the ability of the measures contained in the EMMPr to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.		See Audit Report.
	16.3. identify and assess any new impacts and risks as a result of undertaking the activity;	Full Compliance	See Audit Report.
	16.4. evaluate the effectiveness of the EMMPr or both;	Full Compliance	See Audit Report.
	16.5. identify shortcomings in the EMMPr;	Full Compliance	See Audit Report.

No.	Conditions	Compliance	Comments/Observations
	16.6. identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMMPr;	Full Compliance	See Audit Report.
	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;	Full Compliance	See Audit Report.
	16.8. indicate the date on which the operational phase was commenced with and the progress of the rehabilitation;	Full Compliance	See Audit Report.
	16.9. include a photographic record of the site applicable to the audit; and	Full Compliance	See Audit Report.
	16.10. be informed by the ECO reports.	Full Compliance	See Audit Report.
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).	Not Yet Applicable	Still to be done.

No.	Conditions	Compliance	Comments/Observations
10	The offeeted area report to a deposite at a design		As now the ECO Depart of May, June 2002, the site had been departed with the
18.	The affected area must be demarcated prior to commencement of construction activities.	Full Compliance	As per the ECO Report of May-June 2023, the site had been demarcated prior to the commencement of construction. See Appendix 8 of this report.
19.	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. 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.	Full Compliance	No heritage remains were found during the construction process.

6. Summary of Partial and Non-Compliances:

Partial Compliance:

• Condition No. 4: The holder is responsible for ensuring compliance with the conditions of the EA; therefore the holder should have ensured that the project was audited within the 3 month threshold after completion of the stabilization, rehabilitation and monitoring activities. This is regarded as Partial Compliance (low) because Sharples Environmental Services has since been appointed to conduct the External Environmental Audit, and no consequences to the environment were posed by this contravention.

Non-Compliance:

• Condition No. 15: The final audit report was not undertaken within the 3 month threshold; however, this is regarded as Non-Compliance (low) because Sharples Environmental Services cc has been appointed and the audit has now been conducted, a final environmental completion report was also submitted by Cape Environmental Assessment Practitioners (Pty) Ltd upon completion of the works. No consequences to the environment were posed by this contravention.

7. EMPr Compliance:

The following checklist was used to assess the level of compliance to the conditions contained within the EMPr, as stipulated in Section 4, 6, 7 and 8 of the EMPr. To assess the level of compliance, the following table is applicable:

Full Compliance	Successful adherence the condition (to be continued, if applicable)
Partial Compliance	Adherence to some conditions, whilst action/effort required in other regards. Can be high or low (see checklist below).
Non - Compliance	Does not adhere to the condition.
Not Yet applicable	Not yet applicable to this audit or still to be done

Partial Compliance Checklist:

High	In which case the duration, extent, local impact and regional impact of the environmental impact is high.
Low	In which case the duration, extent, local impact and regional impact of the environmental impact is low.

<u>Section 4.1 Mitigations and Best Practice:</u>

Mitigation	Compliance	Comments/Observations
Gabions must mimic the curved profile of the embankment.	Full Compliance	The gabions mimic the curved profile of the embankment. See Image 1, 2 and 5.
The river reach must be routinely monitored to ensure that any constrictions to flow (dumped waste, felled trees, stormwater debris) are removed from the channel.	Full Compliance	According to the ECO Completion Report (Appendix 11) the construction team routinely removed plastic material from the channel as construction progressed. A diesel/oil spill was noted by the construction team in the Meul River (unknown sources) and this was reported to the Environmental Control Officer of the George Municipality.
The most upstream and downstream ends of the gabions must align (or be flushed) with the existing stream bank.	Full Compliance	Both ends of the gabions (upstream and downstream) align with the streambank.
After long-term monitoring, determine if additional protection is necessary (opposite side of the bank).	Not Yet Applicable	This is in progress. ECO has noted that this area must be monitored, particularly after heavy rainfall events.
Applicant must appoint an ECO to oversee construction.	Full Compliance	Cape Environmental Assessment Practitioners (Pty) Ltd were appointed as ECO.
The stormwater outlet pipe, must be designed adequately to dissipate the energy.	Full Compliance	As per the ECO Completion Report: The stormwater outlet pipe was designed by Nadeson Consulting. Dr James Dabrowski (Aquatic Specialist from Confluent Environmental) recommended that they cut the stormwater outlet a little bit shorter so that stormwater will be directed into the underlying gabions and not the bed of the watercouse. This will mitigate the risk of further erosion from the stormwater outlet. The Contractor did cut the stormwater outlet shorter.
Clearly demarcate areas where instream construction activities will take place.	Full Compliance	The site development area was clearly demarcated as per the ECO reports.
Stockpiles of materials must be placed outside the channel of the watercourse (on as flat as possible) and protected (through use of sandbags and/or tarpaulins).	Full Compliance	The stockpile was on a flat surface and stable. Material was removed from site and transported to the Municipal dump.
Prevent uncontrolled access of vehicles into the watercourse.	Full Compliance	Access was controlled by the manager on-site. The only entrance to the site was closed during the night. The Applicant

Mitigation	Compliance	Comments/Observations
		also hired security that were present during the night to secure the area.
Construction activities must be timed to coincide with a dry period. Due to the emergency state of this project and George's unpredicted weather changes, it is advised that the holder of the EA first contact with the ECO & aquatic specialist to determine whether it is the right time to start construction (based on the most recent weather reports).	Full Compliance	No excavations took place in the rain. The ECO and Aquatic Specialist were consulted with to determine whether it is the right time to excavate/work within the watercourse. ECO also gave many instructions to contractor on excavations during wet conditions as noted in the ECO Reports.
A temporary check dam (using sandbags) should be established upstream of the construction to create dry working conditions should work not be undertaken during a dry period.	Full Compliance	According to the ECO Completion Report (Appendix 11) a temporary check dam was created upstream and two silt fences were installed downstream. Please refer to Appendix 8.
A flexible pipe should be used to transfer water from upstream.	Full Compliance	Although the pipes were not flexible, the contractor did use pipes with sandbags to create dry working conditions. This was noted as being sufficient by the ECO.
Temporary straw-bales can be placed across the channel (downstream of the streambank) to trap high levels of sediment in the event of a high rainfall.	Full Compliance	The contractor installed two silt fences across the channel (downstream of the streambank) and secured it with sandbags and straw-bales.
Demarcate the area(s) chosen for the stockpiling of imported materials and put-up notices declaring what must be stockpiled where i.e. bank material vs riverbed material separately.	Full Compliance	The entire site was demarcated and closed-off to the public.
Development of a construction schedule.	Full Compliance	A construction programme was sent to DEA&DP as per the ECO Completion Report.
Post-installation, stabilise exposed banks with indigenous vegetation.	Full Compliance	Disturbed and unstable areas were rehabilitated with kweek grass and indigenous trees. It was however noted that a small portion of the soil embankment next to the downstream gabion end can easily erode because the soil in that area is quite loose with no indigenous vegetation to stabilize it. The contractor stabilized this area with gabion rocks and indigenous vegetation. This area must be monitored, especially after heavy rainfall as per the ECO Completion Report.
Gabions will be packed by manual labour.	Full Compliance	Gabions were packed by the contractor's team and local people from Rosemoor suburb as per the ECO Reports.
No operating vehicles within 5m of the edge of the channel. The 5m setback line will be relaxed, where necessary, to accommodate for operating vehicles in consultation with the ECO.	Full Compliance	No issues were noted in this regard in the ECO Completion Report or any of the monthly ECO Reports.

Mitigation	Compliance	Comments/Observations
Oil and fuel leaks of excavators and all other machinery must be checked daily.	Full Compliance	As per the ECO reports, no oil or fuel weeks were noted throughout the construction process, an oil spill was noted in the river however the ECO confirmed that the source was unknown (coming from further upstream) and that it was not related to the construction works.
No fuel storage, refuelling, vehicle maintenance or vehicles depts to be allowed within the delineated area of the wetland.	Full Compliance	No issues were noted in this regard in the ECO Completion Report or any of the monthly ECO Reports.
Bunds should be placed around refuelling, fuel storage and servicing areas. These areas must not be located within any natural drainage areas or preferential flow paths and must be located more than 20m away from the delineated area of each wetland.	Full Compliance	Refuelling and maintenance took place off-site as per the ECO Completion Report.
Chemical toilets (1 toilet / 10 persons).	Full Compliance	One toilet was on-site and kept neat and clean throughout the construction phase as per the ECO Reports.
Waste from chemical toilets must be disposed of regularly by a registered waste contractor.	Full Compliance	Chemical toilet was kept neat and tidy, waste was disposed of by a registered waste contractor.
No mixing of cement / concrete on bare ground or within the watercourse.	Full Compliance	No cement or concrete noted on site as per the ECO Completion Report.
Instruct workers & contractors properly of the environment (environmental inductions).	Full Compliance	As per the ECO Reports, two environmental inductions were conducted by the ECO.
All waste generated on-site must be adequately managed.	Full Compliance	All waste material was put in drums on site. Housekeeping was good and effectively managed by the ECO as can be seen in the ECO Reports.
Separation and recycling of different waste materials should be supported.	Full Compliance	No evidence of recycling could be found in the ECO Reports or ECO Completion Report.
All gabions must be inspected on a routine basis. Any faults must be immediately asap to prevent unwanted environmental damages.	Not Yet Applicable	The Municipality to inspect gabions on a routine basis.
Scouring or undercutting caused by gabion weirs must be rehabilitated following the inputs of an aquatic ecologist.	Not Yet Applicable	The Municipality to consult with an aquatic ecologist.
Withdrawn lawns from the edge of the streambank and a 5m riparian buffer, consisting of appropriate indigenous plants must be reestablished along the length of the eastern bank post-construction. It	Partial Compliance (low)	As per the ECO Completion Report - Considering cost implications, only the disturbed areas were rehabilitated with

Mitigation	Compliance	Comments/Observations
should be noted that a lot of factors including municipal budget and the property owners along this embankment might hinder this mitigation.		kweek grass and indigenous trees. This is therefore appropriate indigenous plants.
Any construction camp, storage, washing and maintenance equipment, storage of construction materials, or chemicals, as well as any sanitation and waste management facilities – (a) is located outside the 1 in 100-year flood line or riparian habitat of the river. (b) is removed within 30 days after the completion of any works.	Full Compliance	As per the ECO Completion report, this had been complied with.
Construction must start upstream and proceed in a downstream direction.	Full Compliance	As per the ECO Completion report, this had been complied with.
All excavated material from the banks of the watercourse must be stored and clearly demarcated until the works have been completed. The excavated material must be backfilled.	Full Compliance	As per the ECO Completion report, this had been complied with.
Following completion and during annual inspection to determine the need for maintenance, ensure that all disturbed areas are – (a) cleared of construction debris and other blockages; (b) re-vegetated with indigenous vegetation suitable to the area	Not Yet Applicable	In progress.
Monitor water quality during construction. Water samples must be taken (both upstream & downstream) before, during and after construction to ensure that the water quality isn't affected.	Full Compliance	As per the ECO Completion Report this was monitored by the Aquatic Specialist (Confluent Environmental).
Gabions must be inspected regularly and after every large storm, to detect damages or abnormalities. Any vegetation growing out of the gabion boxes must be removed. Broken or damaged panels can be repaired on site. If several gabion baskets are broken advice should be sought from the Engineer and maintenance must be undertaken under supervision of an ECO.	Not Yet Applicable	To be inspected.
Gabion baskets must be inspected for differential settlement caused by major storm events.	Not Yet Applicable	To be inspected.

Best Practice	Compliance	Comments/Observations
Construction work must take place during normal work hours.	Full Compliance	As per the ECO Completion report, this had been complied with.
Traffic management must be in place during construction	Full Compliance	As per the ECO Completion report, this had been complied with.
Additional Actions	Compliance	Comments/Observations

Pre Construction Design Considerations

Condition	Actions Required	Compliance	Comments/Observations
6.1 Stormwater Mand Preparation	a. Final design of the stormwater system must take place prior to construction to ensure timeous implementation. Refer to Site Development Plan & Method Statement compiled by Nadeson Consulting Services (Appendix 2).	Full Compliance	Final design of stormwater system was done prior to construction.
6.2 Gabion Design	b. Final design of gabions must take place prior to construction to ensure timeous implementation. Nadeson Consulting Services designed		Gabions were designed by Nadeson Consulting and gabions mimic the curved profile of the embankment to prevent increased stream velocity and consequent further erosion.

Condition	Actions Required	Compliance	Comments/Observations
	the gabions in a curved manner to prevent increased stream velocity and consequent further erosion.		

Construction Considerations

Condition	Actions Required	Compliance	Comments/Observations
7.1 Stormwater Management	a. Divert stormwater by placing sand bangs in the proposed area of construction which prevent the area from being saturated before placing gabions.	Full Compliance	Sandbags were used in the proposed area of construction to divert stormwater before placing gabions.
7.2 Dust Control	a. Implement a dust prevention strategy, developed at the project planning stage	Full Compliance	No issues regarding dust were noted in the ECO Reports.
7.3 Noise	a. Fit and maintain appropriate mufflers on earth-moving and other vehicles on the site.	Full Compliance	No issues regarding noise were noted in the ECO Reports.
	b. Enclose noisy equipment such as generators and pumps.	Full Compliance	No issues regarding noise were noted in the ECO Reports.
	c. Provide noise attenuation screens, where appropriate.	Full Compliance	No issues regarding noise were noted in the ECO Reports.
	d. Where an activity is likely to cause a noise nuisance to nearby residents, restrict operating hours to between 7 am and 6 pm weekdays and 7 am to 1 pm Saturday, except where, for practical reasons, the activity is unavoidable.	Full Compliance	No issues regarding noise were noted in the ECO Reports.

Condition	Actions Required	Compliance	Comments/Observations
7.4 Traffic Control	 a. Implement a traffic management strategy during construction. 	Full Compliance	
7.5 Waste Management	 a. Reduce wastes by selecting, in order of preference, avoidance, reduction, reuse and recycling. 	Full Compliance	No issues regarding waste was noted in the ECO Reports, housekeeping issues were consistently addressed by the ECO.
	b. Maintain a high quality of housekeeping and ensure that materials are not left where they can be washed or blown away to become litter.	Full Compliance	Housekeeping was effectively monitored by ECO during construction and any issues were reported on and attended to as per the ECO Reports.
	c. Provide bins for construction workers and staff at locations where they consume food.	Full Compliance	Bins were present on site as per the ECO Reports.
	d. Conduct ongoing awareness with staff of the need to avoid littering.	Full Compliance	Two environmental inductions were conducted by the ECO.
7.6 Stockpile Management	 a. Minimise the number of stockpiles, and the area and the time stockpiles are exposed. 	Full Compliance	No issues were noted with regards to stockpiles in the ECO Reports.
	b. Keep topsoil and underburden stockpiles separate.	Full Compliance	No issues were noted with regards to stockpiles in the ECO Reports.
	c. Ensure that stockpiles and batters are designed with slopes no greater than 2:1 (horizontal/vertical).	Full Compliance	No issues were noted with regards to stockpiles in the ECO Reports.
	d. Stabilise stockpiles and batters that will remain bare for more than 28 days by covering with mulch or anchored fabrics or seeding with sterile grass.	Full Compliance	No issues were noted with regards to stockpiles in the ECO Reports.
	e. Establish sediment controls around unstabilised stockpiles and batters.	Full Compliance	No issues were noted with regards to stockpiles in the ECO Reports.

Condition	Actions Required	Compliance	Comments/Observations
	f. Suppress dust on stockpiles and batters, as circumstances demand.	Full Compliance	No issues were noted with regards to stockpiles in the ECO Reports.
7.7 Storing Fuels & Chemicals	 a. Minimise fuels and chemicals stored onsite. 	Full Compliance	No issues were noted in this regard in the ECO Reports.
	b. Install bunds and take other precautions to reduce the risk of spills.	Full Compliance	No issues were noted in this regard and as per the ECO Completion Report, refuelling and maintenance took place offsite.
	 c. Implement a contingency plan to handle spills, so that environmental damage is avoided. 	Full Compliance	No issues were noted in this regard and as per the ECO Completion Report, refuelling and maintenance took place offsite.
7.8 Minimising Erosion	 a. Schedule measures to avoid and reduce erosion by phasing the work program to minimise land disturbance in the planning and design stage. 	Full Compliance	Erosion was effectively monitored and managed by ECO, as per the ECO Reports.
	b. Keep the areas of land cleared to a minimum, and the period areas remain cleared to a minimum	Full Compliance	Erosion was effectively monitored and managed by ECO, as per the ECO Reports.
	c. Base control measures to manage erosion on the vulnerability of cleared land to soil loss, paying particular attention to protecting slopes.	Full Compliance	Erosion was effectively monitored and managed by ECO, as per the ECO Reports.
	d. Mulch, roughen and seed cleared slopes and stockpiles where no works are planned for more than 28 days, with sterile grasses.	Full Compliance	Erosion was effectively monitored and managed by ECO, as per the ECO Reports.
	e. Keep vehicles to well- defined haul roads.	Full Compliance	Erosion was effectively monitored and managed by ECO, as per the ECO Reports.
	f. Rehabilitate cleared areas promptly.	Full Compliance	Erosion was effectively monitored and managed by ECO, as per the ECO Reports.
7.9 Rehabilitation and Botanical Management		Full Compliance	Site development area was clearly demarcated, and construction was restricted to within this area.

Condition	Actions Required	Compliance	Comments/Observations
	a. Demarcate sensitive areas to avoid damage during construction.		
	 Rehabilitation and landscaping may only make use of indigenous vegetation. 	Full Compliance	Only indigenous vegetation was used for rehabilitation purposes by contractor.
7.10 Fauna Management	a. Prevent unnecessary mortalities of indigenous fauna	Full Compliance	No issues were noted in this regard.
7.11 Social Requirements	a. It is strongly recommended that the Contractor make use of local labour as far as possible for the construction phase of the project.	Full Compliance	Local workers from Rosemoor were employed to help install the gabions.
	b. Theft and other crime associated with construction sites is not only a concern for surrounding residents, but also the Developer and the Contractor.	Full Compliance	No issues were noted with regards to theft and other crime.
7.12 Method Statements	a. Method statements are written submissions by the Contractor to the ECO in response to the requirements of this EMMPr or to a request by the ECO. The Contractor shall be required to prepare method statements for several specific construction activities and/or environmental management aspects.	Full Compliance	Cape Environmental Assessment Practitioners (Pty) Ltd have confirmed that this condition had been complied with, and that all method statements were provided by the contractor.
7.13 Health and Safety	The Contractor must ensure compliance with the Occupational Health and Safety (No. 85 of 1993).	Full Compliance	No recommendations required.

Operational/Maintenance Phase Environmental Management Requirements

No.	Conditions	Compliance	Comments/Observations
8.1 Stormwater Management	a. No stormwater runoff should be allowed to concentrate onto open spaces and roadways downstream of the property.	Not Yet Applicable	To be monitored in audit report following maintenance activities.
8.2 Botanical/Landscaping/rehabilitation	a. Home owners must practice ongoing alien invasive management.	Not Yet Applicable	To be monitored in audit report following maintenance activities.
	b. Retain and manage protected and indigenous vegetation (Rehabilitated Indigenous vegetation on the Molen River embankment).	Not Yet Applicable	To be monitored in audit report following maintenance activities.

8. Summary of Partial and Non-Compliances:

Partial-Compliance:

• Mitigation Measure - Withdrawn lawns from the edge of the streambank and a 5m riparian buffer, consisting of appropriate indigenous plants must be re-established along the length of the eastern bank post-construction. It should be noted that a lot of factors including municipal budget and the property owners along this embankment might hinder this mitigation. As per the ECO Completion Report - Considering cost implications, only the disturbed areas were rehabilitated with kweek grass and indigenous trees. This is regarded as Partial-Compliance (low) because the areas that were disturbed by construction activities had all been rehabilitated with appropriate indigenous plants, and it had been predetermined that this mitigation measure could be hindered.

9. Recommendations:

- We recommend that the George Municipality follow up on maintenance activities as required and ensure that the site is audited following the completion of maintenance activities.
- We recommend that alien vegetation that is present on site be cleared and that indigenous vegetation be planted in areas where aliens have occurred.

End
LI IU