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ENVIRONMENTAL MONITORING REPORT 6

FOR

Maintenance to and Management of the stormwater infrastructure for Project 28(1) – Flood damage repair in George Municipal area

Compiled by:

HilLand Environmental

Reference:

GEO25/1252/20

Report Period:

February to 7 March 2025

Ref: GEO25/1252/20
Report Period Feb/Mar 2025

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MAINTENANCE TO AND MANAGEMENT OF THE STORMWATER INFRASTRUCTURE FOR PROJECT 28(1) – FLOOD DAMAGE REPAIR IN GEORGE MUNICIPAL AREA

ENVIRONMENTAL MONITORING REPORT NO 6

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HilLand Environmental Internal review process:
Report compiled by: Stefan Delport – HilLand Environmental
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Environmental Monitoring Report No 6

HilLand Environmental, the appointed Environmental Control Officer (ECO) compiled this report as the environmental monitoring report (No.6). This report monitors compliance against the Maintenance Management Plan (MMP) (Ref.: GEO24/1252/14 – 6 June 2024) and constitutes the 6th Environmental Monitoring Report and covers inspections done during February up to 7 March 2025 for the implementation of the maintenance and management of flood damaged infrastructure in the George Municipal Area for portion 1 (non-NEMA sites), portion 2 (MMP sites) & portion 3(EA sites).

Portion 1 Sites:

- 28(1).4 – construction/rehabilitation activity complete
- 28(1).7 – construction/rehabilitation activity complete
- 28(1).21 – construction/rehabilitation activity complete
- 28(1).47 -construction/rehabilitation activity complete

Portion 2 Sites:

- 28(1).1
- 28(1).37 – construction complete – **final rehabilitation in process**
- 28(1).115-120

Portion 3 Sites:

- 28(1).2 – construction complete – **final rehabilitation in process**
- 28(1).69
- 28(1).77

Current construction activities comply with the approved MMP & EA -EMP. Any changes to design / additional work, related to the sites detected during construction and detail survey, required to protect riverbanks or municipal infrastructure is discussed with the Engineers and ECO on-site.

The municipality and engineers are investigating the option to shotcrete the gabion structures to prevent future vandalism and theft. The ongoing long-term maintenance implications of changing the permeability of the structures is unknown. It is anticipated that the municipality will need to inspect the structures more often to ensure that any undermining erosion at the termination points of each structure is detected and repaired before it can affect the stability of the structures themselves.

Notification of commencement of the portion 3 sites was sent to DEA&DP on the 17th September 2024.

The construction footprint of each site has been pegged by the surveyor prior to commencement.

No environmental induction sessions done during this reporting period.

Site inspection during **Feb/Mar** 2025

Date	Comment
10 February 2025	Site inspection & Site Meeting
27 February 2025	Site inspection
7 March 2025	Site inspection

PHOTOGRAPHIC RECORD AND COMMENTS

Site 28(1).1

- Construction in progress.
- The ECO approved access method statement.
- Due to the historic dumped material, the side slopes are not stable and therefore the excavation and stockpile area is larger than anticipated. The stockpile area is directly next to the stormwater outlet structure on previously distributed area will be shaped and rehabilitated to natural slope.
- A section of the existing damaged stormwater pipe in the road had to be replaced.
- Regular dumping (local residents) within the construction site remains an ongoing issue.
- Portable toilet is on site.
- Backfilling and shaping to commence in due course.

Construction progress.

Stockpile area – at the site

Construction progress – backfilling behind the gabion structure and shaping will start in due course.

Construction progress.

Site 28(1).37

- Construction near completion and shaping/sloping still to be done – no environmental issues note.
- The slope below and backfilling above the gabion structure must be rehabilitated with grass seed/sods.
- Continual dumping (local residents) of litter and waste remains an ongoing issue.
- Access is gained via the existing municipal road.
- The gabion baskets were stockpiled in the Municipal sewage pump station site camp.
- Construction material was stockpiled next to the existing municipal road.

<table>
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Gabion retaining wall construction completed. Continual dumping of waste and litter remains an ongoing issue.</td>
<td> 

Backfilling completed – rehabilitation (topsoil and grass seed/sods) still to be completed.</td>
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<td> 
Final shaping and tie in at the ends of the gabion structure to be finalised – small concrete channel.</td>
<td> 

The slope below the gabion structure has been shaped.</td>
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Site 28(1).115-120

- Construction in progress.
- **Silt fence to be used when working at the last gabion protection structure.**
- Surveyor pegged the stormwater structure (gabion and armorflex) footprint.
- No environmental issues noted.
- Construction footprint to be kept as small as possible.
- The sewer manhole near the site constantly blocks up and overflows – the contractor then immediately notifies the municipality, and they then unblock the manhole.

	
Construction progress – armorflex stormwater channel.	Construction progress.

Construction site – existing erosion trenches will be rehabilitated at the end of construction.

Construction progress – gabion installation. The slope will be shaped to tie in with the armorflex channel.

Construction site – silt is captured in the armorflex.

Shaping and installation of the armorflex in progress.

Site 28(1).2

- Construction of the main gabion structure is complete.
- Shaping and backfilling done, however after the recent rain there is erosion damage on the sides of the structure. This was inspected on Friday (7 March 2025) with the engineer and contractor and a suitable solution was discussed and agreed. Backfilling and rehabilitation will be done in due course.
- The ECO approved access method statement – minor deviation due to the steep slope and stability of the slope. The slope must be rehabilitated with grass seed/sods and small silt fences.

Gabion structure construction is completed. Note that the reno-mattress section captures silt as designed.

Erosion damage on the sides of the gabion structure will be backfilled and rehabilitated. Additional erosion protection to be installed (mulch sausages, sandbags etc). A gabion will be installed to prevent future erosion.

Site 28(1).69

- Construction of both structure is near completion.
- Erosion damage after the rain will be repaired. Additional erosion protection (mulch bags or sandbags) to be used – where feasible.
- Ongoing dumping of waste and litter (local residents) remains an issue.
- Construction stockpile area is the existing transformed area next to the municipal road.
- Access to the site via the existing municipal road.
- Portable toilet is on site.

Construction progress (69a).

Contractor progress (69b) backfilling and shaping done – additional erosion protection (mulch bags or sandbags) to be used – where feasible.

Construction progress (69a) – erosion damage to fixed and rehabilitated. Additional erosion protection (mulch bags or sandbags) to be used – where feasible.

Local residents are burning waste (general and garden refuge) is burned on site – not the contractor.

Site 28(1).77

- Site preparation and excavation commenced in October 2024.
- Surveyor pegged the stormwater outlet structure.
- Construction of the gabion structure in process.
- Silt fence or stormwater diversion must be installed and maintained to prevent silt movement downstream - **temporary stream diversion in place**.
- Construction material stockpiled next to the municipal road.
- Access to the site is gained via the existing track to the municipal pump station.

Construction in progress – temporary diversion in placed (left).

Downstream – gabion installed. Side slopes to be rehabilitated (topsoil) and erosion protection (mulch bags/ sandbags etc.) at the end of construction.

Upstream – gabion installed.

Construction site – pedestrians still use the walkway.

CONCLUSION AND RECOMMENDATIONS

The contractor and George Municipality are compliant with the Duty of Care for portion 1, the MMP for portion 2 sites and the EA and EMP/MMP for the portion 3 sites.

There are portable toilets at each of the active sites. Construction working zone has been pegged by the surveyor before commencement and demarcation (pegs) is installed and maintained. Due to the nature of the sites (litter and dumped rubble), there is very limited topsoil to rescue.

Ongoing dumping of waste and litter (local residents) remain an ongoing issue at all sites.

Access to each of the sites was discussed with the ECO and engineer before commencement. Practical access deviation(s), where required, are to be discussed and agreed upon with the ECO and Engineer prior to being implemented.