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ENVIRONMENTAL MONITORING REPORT #47

KRAAIBOSCH PARK (PORTION 370 AND 371), GEORGE



Compiled by	HilLand Environmental
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ENVIRONMENTAL MONITORING REPORT No. 47 - KRAAIBOSCH PARK (PORTION 370 AND 371), GEORGE**FOR JULY 2024****Conditions of report use:**

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Report compiled by: Stefan Delpont and Jennifer Teifel – HillLand Environmental**Report reviewed by:** Inge Delpont – HillLand Environmental

This report monitors the following:

- Compliance with the Operational Environmental Management Programme (OEMPr), compiled by Sharples Environmental Services (36/RDP/370&371/7/17) for Phases 1, 2 and 3 (monthly); &
- Compliance with the Construction EMPr for Phases 2 & 3 (monthly during home building construction).

General matters:

- The developer is amending the site development plan of the future development phases (phase 4 onwards) and to implement the stormwater management plan. NEMA BAR and WULA processes are ongoing – pre-application public participation process ended in July 2024.

1 Operational Phase Compliance: Phase 1, 2 & 3

Date of site visit
15 July 2024

Items that require attention	
Item	Responsibility
Reminder - removal of invasive alien plants in undeveloped areas.	Terrain manager.

1.1 Establishment and responsibilities of the Homeowners Association (HOA)

As per the ROD, an HOA must be established which will have the following responsibilities;

- Implementation of energy-efficient measures to reduce energy and water consumption as described in the EMP.
- Management of Private Open Spaces within the residential development (as per the EMP).
- Eradication and prevention of further encroachment by alien invasive plant species will require an ongoing management programme – *ongoing - the alien plants noted in the development area of phase 3 must be managed.*

Developer/HOA to fulfill these responsibilities.

1.2 Waste and water management

An integrated waste management approach must be encouraged which is based on waste minimisation and must incorporate **reduction, recycling, re-use, and disposal** where appropriate.

In accordance with the ROD, a collection point must be established, and containers (clearly marked and containers of suitable size) must be placed within this area for the separation of recycling waste. The owners must be informed that recyclables must be cleaned and dried if stipulated by the recipient service provider. The HOA must encourage waste separation.

Homeowners are separating waste into black, blue, and green bags in accordance with the Municipal recycling initiative. Please continue to encourage residents to reduce waste and recycle as much as possible.

Rainwater from roofs must be collected and stored in rainwater tanks. Collected rainwater must receive preference to address the water demand and be utilised within a reasonable timeframe. Rainwater that is stored on erven may be utilised either individually or in a network system – *no issues noted or reported*.

1.3 Open space landscaping

Landscaping within Open Space areas must be done using local topsoil and a variety of **indigenous and / or water-wise Southern Cape plant species** and selected extra-limital species.

Restoration of disturbed areas must be habitat-specific and only indigenous Southern Cape plant species are stipulated for use in supplementary planting.

In private gardens, homeowners must be encouraged to plant 80% indigenous Southern Cape plant species whereas the remaining 20% can be non-indigenous. **No listed alien invasive vegetation may be planted.**

- *Landscape areas are compliant with these conditions. The open space has been rehabilitated.*
- *There was a query regarding the positioning of the indigenous trees that have been planted. It was confirmed that indigenous trees are being planted as part of the estates landscaping within the road reserve and internal open space (parks).*



1.4 Invasive alien plant control

The property must be cleared of all Alien Invasive Plant species. The Open Space areas must be regularly cleared of alien invasive species by implementing the approved methodology.

The Pampas grass, black wattles, bramble and bugweed in the wetlands and stormwater channels must be eradicated.



Black wattle on the road verges.



Datura spp. In the road reserve must be removed.

1.5 Stormwater outlets and erosion control

Completed stormwater channels are to be monitored for any signs of soil erosion. If any erosion occurs it must be fixed straight away and suitable erosion protection must then be installed and maintained - *the silt fences/sandbags placed across channel must be monitored and maintained (remove silt and litter/debris by hand).*



Sandbags must be continuously maintained in the stormwater outlet to reduce erosion.



The sides of the stormwater outlets must be monitored for erosion while they are still revegetating.

Phase 1 – 3 – Operational Phase Conditions			
Item	Yes / Full Compliance	No / Non-compliance	Comments
An HOA must be established and must comply with the responsibilities as set out within the ROD.	Yes		HOA to comply with the responsibilities of the ROD and EMPr.
An integrated waste management approach must be implemented.	Yes		Comply and HOA to continue to implement and manage.
Landscaping of internal open space areas must be done using local topsoil and a variety of indigenous and / or water-wise Southern Cape plant species and selected extra-limital species.	Yes		Comply, indigenous vegetation/trees are planted in the open space.
Rainwater from roofs must be collected and stored in rainwater tanks. Water-saving measures / techniques must be implemented within the houses.	Yes		Comply, rainwater harvesting tanks used at each house – please ensure that all households do make use of the rainwater.
The property must be cleared of Alien Invasive Plant species and open space must be repeatedly cleared of alien invasive plant species and a follow-up programme is to be implemented.	Yes - ongoing		As per section 1.4 above
Adequate erosion control measures must be implemented as required.	Yes		Ongoing monitoring of the stormwater outlets that have been handed over to the HOA. Ensure that the sandbags or silt fences are in place and functioning. Silt fences to be upright and silt buildup to be removed. Sandbags to be across the flow path to slow runoff water and capture silt.

2 Phase 2 - Construction Compliance (home building)

Date of site visit
15 July 2024

Items that require attention	
Item	Responsibility
Ongoing reminder - Construction zone must be demarcated and silt fence to be installed and maintained	Contractor
Regular inspections of the stormwater inlets and outlets for silt and litter buildup and clean when necessary.	Contractor
Regular litter picking and ensure that the bins/skids are not overflowing	Contractor

2.1 Environmental Induction

Environmental induction (education) has been done with the house building contractor and his staff.

2.2 Site Camp & site management

House contractor's construction site camp must remain outside NO-GO/sensitive areas. This will prevent encroachment into internal green/open space which is not allowed – *Current site camp and office is within a future development zone.*

The construction sites (houses under construction) are to be demarcated to prevent unauthorized entry after working hours. The demarcation netting must remain in place for the duration of the construction period – *not all sites have demarcation, but no encroachment into the internal open space is noted.*

Regular inspections of the stormwater inlets and outlets for silt and litter buildup and cleaning when necessary. Stormwater inlets to be protected from silt by placing sandbags to capture silt before entering the inlet structure. These "silt traps" must be cleaned regularly – this is an ongoing reminder to prevent silt ingress into the stormwater system.



2.3 Soil Management

Topsoil is to be stored for later use during rehabilitation. Subsoil must be stored separately from topsoil to prevent contamination. Regular stockpile inspections for invasive alien plants ("Stinkblaar" (*Datura spp.*)) and removal if recorded (ongoing reminder).

- *No issues noted or reported.*
- *Undeveloped stands are to be left vegetated, which will help prevent soil erosion.*

Building rubble not to be dumped/stored on topsoil of new erven, rather use the already disturbed centrally located stockpile site – *improvement noted.*

2.4 Dust monitoring during construction activity

- *No dust complaints or issues reported to the ECO during this reporting period.*

2.5 Concrete and Cement management

Non-permeable layers (wooden sheet etc.) must be used if mixing is done of the ground – runoff water must be managed by means of a bunding wall to prevent it from entering the stormwater network.

Contaminated soil must be removed and disposed of at an authorised disposal facility. Topsoil must be replaced and seeded with indigenous grass seed mixture – *no issues reported during this reporting period.*

2.6 Waste management

Home building contractors are reminded that ablution facilities and skips and/or bins must always be available on site to prevent littering/pollution – *No specific environmental issues noted during this monitoring period.*

The construction rubble stockpile is in the future development area and small stockpile (within the demarcated construction site) – *skips and rubble must be regularly removed/emptied. The stockpile(s) are removed regularly. Regular litter picking must be done at each site and at the site camp to ensure that all wind-blown litter is kept inside a bin.*



Phase 2 – Building Construction Phase Conditions				
General				
Item	Yes/Full Compliance	No/Non-compliance	Not yet Necessary	Comments
Have the correct procedures been followed when any historical artefacts have been uncovered during construction?			N/A	Not necessary.
Have all new staff on-site (including drivers) been given induction on Environmental awareness by the ECO?	Yes			Environmental induction has been done with the house building contractor and his staff. Building contractor to notify ECO of when new staff start on site.
Site Management				
Item	Yes/Full Compliance	No/Non-Compliance	Not yet necessary	Comments
Have NO-GO areas been clearly demarcated?	Yes			Internal green/open space in phase 2 have been demarcated with wooden poles and wire string.
Are noise levels being kept to a minimum?	Yes			No noise issues reported to the ECO during this reporting period.
If necessary, is dust control being implemented?			N/A	No dust control required at the moment.
Are sufficient toilets facilities provided, used, and maintained?	Yes			Building contractor should ensure that the toilets are regularly maintained / cleaned.
No open fires are allowed in the construction site	Yes			Compliant – none noted
Vehicles and Machinery				
Item	Yes/Full Compliance	No/Non-Compliance	Not yet necessary	Comments
Are vehicles keeping to designated routes and driving responsibly on the adjoining road network?	Yes			Designated routes are being used.
Are vehicles and equipment stored in approved demarcated area only?	Yes			Within the development area.
Vehicles and equipment are well maintained and keep to speed limits.	Yes			Please ensure that drivers are reminded of this during toolbox talks – no issues
Are drip trays used when necessary?	Yes			Drip tray to be used at the fuel bowser. No refueling took place during ECO inspections.

Repairs / re-fueling of vehicle/ machinery must not take place in the riparian zone, maintenance within these areas may only be done in emergencies (ECO to be notified).			N/A	None noted during ECO inspections.
Soil and Water Management				
Item	Yes/Full Compliance	No/Non-Compliance	Not yet necessary	Comments
Has erosion control been implemented as required?	Yes			No specific erosion issues noted in the <u>housing construction zone</u> during this reporting period.
Soil stores are protected from contamination and erosion.	Yes			No erosion noted on the stockpile(s)
Excavated soil is returned to trenches in the correct order.	Yes			Ongoing
Cement batching must take place on an impermeable surface on transformed land.	Yes			Contractor - batching areas to be bunded – no issues noted during this reporting period.
Cement bags must be stored appropriately and protected against rain. Used cement bags must be disposed of correctly.	Yes			No issues noted or reported to the ECO during this reporting period. Waste skips and rubble stockpiles to be removed regularly to prevent littering.
Is contaminated water being disposed of appropriately?			N/A	None noted during this reporting period. It is important to prevent any contaminated water from entering the stormwater network – use sandbags to build a berm around the stormwater inlet when contaminated water flow is noted.
Topsoil is to be saved and stored separately to subsoil and other materials. Topsoil should not be compacted.	Yes			Compliant and re-used during landscaping.
Are adequate storm water control measures in place?	Yes			Ongoing monitoring to be done with regards to potential soil erosion throughout the construction phase. Stormwater structures – inlet – to be protected with sandbags or suitable alternative to prevent silt entering the stormwater system.
Stockpiles of earth material may not be located within the watercourses or any stormwater drainage pathways and must be outside of each of potential floodwaters.	Yes			Appropriate storage of materials

Fauna and Flora				
Item	Yes/Full Compliance	No/Non-Compliance	Not yet necessary	Comments
Is minimal disturbance of indigenous vegetation occurring?	Yes			Minimal disturbance – within development footprint.
Is animal search and rescue conducted prior to construction and during construction?			**	The contractor should ensure that no animals are harmed especially when they are clearing an erf for development.
Are all alien plants being managed appropriately?	Yes	No		Ongoing reminder – Stockpiles must be kept free from listed invasive alien plants. – Stinkblaar (<i>Datura spp.</i>) and Black wattle sapling in the construction phase must be eradicated.
Waste Management				
Item	Yes/Full Compliance	No/Non-Compliance	Not yet necessary	Comments
Is waste kept in appropriate bins and emptied regularly to an approved, licensed facility?	Yes			There are skips throughout the construction site.
Health and Safety				
Item	Yes/Full Compliance	No/Non-Compliance	Not yet necessary	Comments
Are any spillages of chemicals or fluids cleaned up immediately?			**	Nothing was reported to the ECO during this reporting period.
Rehabilitation				
Item	Yes/Full Compliance	No/Non-Compliance	Not yet necessary	Comments
Any compacted soil ripped/loosened on completion of activities.	Yes			Compacted soil is ripped / loosened before topsoil is replace and landscaped / grass.
Are rehabilitation measures including erosion repair and revegetation carried out to satisfaction of ECO?	Yes			Rehabilitation and shaping of each erf are done as soon as construction of the house is complete.

3 Phase 3 – Construction Compliance (Civil services installation)

Date of site visit
15 July 2024

Items that require attention	
Item	Responsibility
Sewer line rehabilitation – erosion damage to be rehabilitated	Developer

The main sewer (bulk) line connects to the municipal sewer line in the southern portion of the property. The sewer line was installed next to the wetland (buffer area) area as delineated by the specialist. Vegetation on the pipeline route consisted mainly of grasses. No bulbs were observed to rescue – *the sewer line has been installed and must now be rehabilitated by raking the compacted soil loose, adding a layer of topsoil, sowing locally indigenous grass seeds (kweek and buffalo grass). It is recommended that soil erosion protection is installed (hessian sausages filled with mulch - or small berms) are to be placed horizontally across the sewer line to prevent erosion while the natural vegetation reestablishes.*