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ENVIRONMENTAL COMPLIANCE MONITORING REPORT NO.22

FOR

**OUTENIKUASBOSCH, FARMS OUTENIKUASBOSCH 149 AND HARTENBOSCH
217, HARTENBOS**

CIVIL SERVICES INSTALLATION (PHASES 4 & 11 & 12 & 13 & 14)



Compiled by:

HillLand Environmental

Reference:

MOS23/455/76

Report Period:

January & February 2023

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OUTENIKUASBOSCH, FARMS OUTENIKUASBOSCH 149 AND HARTENBOSCH 217, HARTENBOS

**ENVIRONMENTAL MONITORING REPORT NO 22
JANUARY & FEBRUARY 2023**

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Environmental Monitoring Report No. 22

This report monitors compliance against the Environmental Management Plan (Ref.: MOS22/455/48). This monitoring report constitutes the 22nd Environmental Monitoring Report and covers inspections done during **January & February 2023** for the **civil services installation of Phases 4, 11, 12, 13 & 14**.

This ECO report covers compliance monitoring for all works to date in terms of the EMPr and the EA in relation to civil services installation.

Commencement of **all listed activities** for the development (including the Resort zone) has taken place in accordance with the EA. The main road to the resort area has been constructed and the decking at the first resort unit complies with the aesthetic requirements.

Weekly ECO monitoring takes place during civil services construction phase (**phases 4 & 11, 12, 13 & 14**) and monthly during individual **house** construction.

The **Operational phase has started** with some residents residing permanently within Outeniquasbosch. It is now important to ensure that all construction areas are demarcated appropriately to prevent any unauthorised entry or accidental injury (residents and animals). All effort should be made to ensure that the estate is always kept neat and tidy, this includes litter, construction rubble and management of invasive alien plants and weeds.

Garden and private rehabilitation areas of each erf must be approved by the ECO to ensure compliance with the EMPr and EA. This is to avoid property owners planting exotic or invasive plants in their garden or private rehabilitation area.

The HOA has established a Landscaping committee that will assist with and oversee the approval of individual home gardens as well as landscaping and rehabilitation of the development nodes internal green/open spaces. The ECO is part of this HOA committee to ensure that there is compliance with the EMPr and EA at all times.

1. Environmental Induction

Environmental induction is done on a regular basis with individual erf contractors and their construction teams. No new environmental induction sessions were held during this reporting period. The ECO will conduct (refresher) environmental induction early 2023 with all building contractors.

2. NO-GO Demarcation

No-Go areas were discussed during the environmental inductions.

Demarcating open trenches has been disused and the owner is required to do the following:

- No go Demarcation (green shade netting) for each home building site **must** be in place and maintained – not all sites are fully demarcated – **follow-up inspection from the HOA/ACO required.**
- The temporary construction haul road to phases 3 and 10 (next to **Mafunyane Street**) is demarcated with small piles of painted stones next to the road – **contractor to ensure that this is maintained and that the rest of the construction haul roads are similarly demarcated.**
- Singular temporary construction roads in phases 4 & 12 & 14 **must** be used. Regular toolbox talks must be done with all drivers and machine operators to remain on the existing temporary construction roads or new permanent roads where they are complete.
- It is required that the construction routes are demarcated to prevent any unnecessary deviation from the routes – **sales staff and residence must be made aware of the construction site and restricted access.**
- The construction site camp (civil services) **must** be fully closed off to ensure no unauthorized entry or animals entering the site camp.



Material stockpile area (pipes etc.) is not fenced off. The contractor is required to fence off the material stockpile area as required in terms of the EMPr

3. Fauna and Flora

The civil and building contractors must ensure that no harm or damage is done to any fauna or flora during active construction periods. Harm or damage can be mitigated by surveying the area to be excavated or cleared to ensure that no animals or plants are affected.

Ongoing eradication of listed invasive alien plants receives ongoing attention.

- *Alien invasive plant species as a result of construction (all phases) activity must be removed. The developer/management team must ensure ongoing alien plant eradication –*

4. Soil & Site Management

The contractors should note that the topsoil must be kept separate from any other subsoil or construction material to prevent contamination.

- *Topsoil are stockpiled next to the excavation (box-cut or trenches) and must not be contaminated during construction – topsoil to be used for rehabilitation.*
- *Dust mitigation measures (keeping the roads wet) are implemented when dust becomes an issue – the civil contractor is using a water truck on dry and hot days to water the construction haul routes.*
- *Only approved identified temporary construction roads in **phases 4 & 12 & 14** must be used to avoid damage to topsoil and vegetation. Regular toolbox talks must be done with all drivers and machine operators to remain on the existing temporary construction roads.*
- *Erosion protection must be installed as part of the rehabilitation when the civil services installation is complete – special focus on the steep slopes next to Monte Christo (Phase 10), Main road (Mafunyane) (phase 4 and phase 11) – several erosion protection measures were discussed during the site meeting on 4 November 2022 (including silt fences, mulch filled sausages, geofabric, gum poles staked to the contours, etc.) – see section 7 below for more details.*



Erosion protection and rehabilitation required on steep slopes.



Stormwater swales are constructed as construction progresses

5. Heritage Requirements

Should any heritage remains be exposed during excavations or any actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape (in accordance with the applicable legislation). 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 include archaeological remains (including fossil bones and fossil shells); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials.

A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

- No heritage remains have been discovered to date.

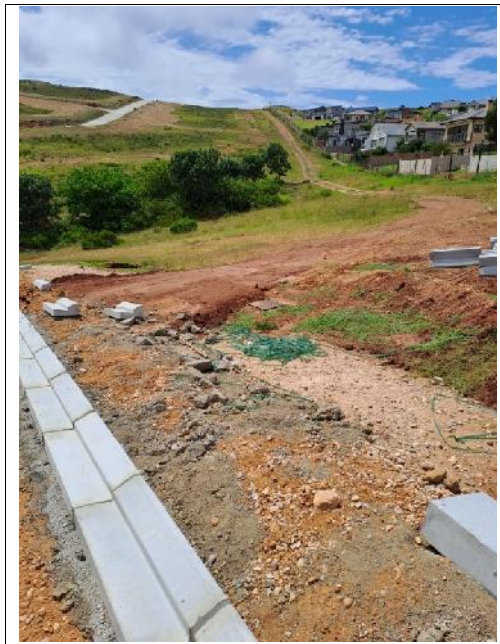
6. Construction Site Camp

Contractors (civil and house construction) must provide ablution facilities for all construction personnel working on the site. One facility for every 15 persons on site is required.

- Toilet facilities are available for the civil contractor's staff and at each home building site.
- Use of the toilet facility must be included as a toolbox talk topic.

A fenced-off area must be created within the site camp for refuse and waste management as indicated above. ECO to inspect for compliance.

- Littering should be covered in regular "toolbox" talks with all staff members.
- Litter bins especially for the curb and paver straps is required. These straps must be removed as they may cause harm to the animals – *in place*.



Curb and paver straps are scattered on site and must be picked up daily.

Any concrete batching areas are to be approved by the ECO prior to utilization and must be equipped with suitable settling ponds and trapping mechanisms to ensure that contaminated water does not leave the restricted area.

- Civil construction – the cement mixing area for phase 4 was discussed and agreed, no further encroachment of the mixing area is to occur.
- Home construction – cement mixing is to be contained within the disturbance footprint and on a non-permeable layer (wooden sheet/plastic etc) to prevent soil contamination.
- **Ready-mix trucks are not allowed to be washed on site.**
- The cement slab processing area was demarcated to prevent further encroachment into natural areas.

There should be a secure access point to the construction site in order to ensure that no unauthorized entry is permitted which may lead to a safety or security risk.

- Access to Outeniquasbosch Eco Estate is controlled through access-controlled gates/booms.

Any temporary haul roads or access roads for construction need to be maintained at all times by the contractor.

- The contractor is maintaining the current construction haul road. **Driving off the designated haul roads or access roads is not permitted.**
- Construction vehicles must **abide by the speed limit** as this is a wildlife estate with animals roaming freely.
- The temporary haul road next to phase 4 and 10 is demarcated with painted stones – **all haul roads must be approved by the ECO in advance and must be demarcated.**
- Singular temporary construction roads in **phases 4 & 12 & 14** must be used. Regular toolbox talks must be done with all drivers and machine operators to remain on the existing temporary construction roads.
- **Erosion and silt protection must be installed in the stormwater outlets to prevent soil erosion and double as litter trap for the duration of the construction phase.**



Erosion and silt protection required below headwalls.

7. Civil Construction

-] Construction and installation of services for **phases 4, 12 & 14** are ongoing.
-] Topsoil and subsoil must be stored separately, topsoil on one side and subsoil on the other side of the trench.
-] Minimal vegetation disturbance is allowed during civil services installation.
-] No new temporary haul roads may be created without ECO approval.
-] Toolbox talks must include use of toilet and littering as topics.

The contractor will be responsible for the rehabilitation of all disturbed areas (including temporary construction haul routes) at the end of construction and before handing the services back to the developer/HOA.

Road reserve of main access road to phases 10, 11 & 13 must be rehabilitated accordingly. Due to the antelope grazing the new growth of the wild grass seed mixture sown after construction, it is recommended that the contractor install additional erosion protection. The following is recommended:

9.1.1 ROAD VERGES

- Road construction should limit the disturbed area to the minimum within the road reserve.
- Trimming of banks to a suitable grade for vegetation.
- Topsoil from the site stockpile is required on all exposed surfaces.
- Stabilizing seed mix of indigenous grasses on all large exposed slopes.
- Mulch and brushwood should be used to retain moisture on cuttings until germination and seedling establishment have taken place.
- A geofabric and brushwood may be required on steep slopes.
- Watering will improve the success rate of the rehabilitation during dry periods.

The planting of rescued plants onto the grassed slopes will have to take place with extreme care to avoid damage to the geofabric and destabilisation of the slopes.

Additionally, the contractor can use mulch filled sausages staked horizontally to the steeper slopes along the roads to further curtail soil erosion.



Example of mulch filled sausages.

8. Conclusion

The contractors are aware of the environmental requirements. It is advised that the contractors (**civil and home building**) do regular toolbox talks with all staff members with special focus on **littering and cigarette** butt disposal. The **building** contractors are also reminded to ensure that the No-Go demarcation and safety netting is maintained to ensure that no animals get injured. Construction and installation of services in **phases 4 & 12 & 14** are being monitored by the ECO – the contractor is reminded to ensure that singular temporary construction haul routes are used. Certain sections of the road verge and stormwater outlets must still be rehabilitation and erosion damage to be rehabilitated. Plant search and rescue must be done before stripping a new area.

ECO monitoring for during **January & February 2023**

Date:	Comment:
13 January 2023	ECO site inspection of the phases 12 & 14
17 January 2023	ECO site inspection of the Civil contractor & house construction
26 January 2023	ECO site inspection of the Civil contractor
30 January 2023	ECO site inspection of the Civil contractor & house construction
2 February 2023	Landscape Committee Meeting
3 February 2023	ECO site inspection of the Civil contractor
10 February 2023	ECO site inspection of the Civil contractor & house construction and site meeting (phases 4, 11 & 13 and 12 & 14).
16 February 2023	ECO site inspection of the Civil contractor & house construction
23 February 2023	ECO site inspection of the Civil contractor
2 March 2023	Landscape Committee Meeting