



REFERENCE: 19/2/5/R

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Attention: Marielle Penwarden

Dear Madam

COMMENTS ON THE GEOTECHNICAL INVESTIGATION, SOIL CONTAMINATION AND GROUNDWATER IMPACT ASSESSMENT REPORTS FOR THE PROPOSED INTEGRATED RAPID TRANSIT DEPOT IN WYNBERG, CAPE TOWN.

1. The Department of Environmental Affairs and Development Planning's Sub-directorate: Waste Management Licensing was requested to comment on the above-mentioned reports dated 22 January 2021, due to the presence of builders' rubble and other waste found at the above-mentioned location.
2. This Sub-directorate: Waste Management Licensing has the following comments:
 - 2.1. Limited information about the background of this project was provided. It was therefore difficult to see the full proposal of this development, but it was also assumed that an application for environmental authorisation will be submitted to this Department, particularly for the development of the bus depot and the storage of dangerous goods.
 - 2.2. Historically, inert builders' rubble waste was dumped at this location. Broken glass bottles, pieces of porcelain, some ash and other possibly decomposed organic material were also found. It was noted in the reports that this specific site was used as the Wynberg (historic) waste disposal facility. At this stage, it is difficult to determine which organic waste types were dumped in this location a long time ago, because the putrescible organic waste would have probably degraded long ago as well. However, the presence of uncompacted builders' rubble waste could cause problems for the proposed bus depot, if the bus depot is established above it without mitigatory measures being taken. The 'dead and live' loads associated with this type of development could cause the uncompacted builders' rubble to settle unevenly. Additionally, a perched water table was found at various depths in the trial/test pits, from 1.6 mbgl to 3.1 mbgl. The geotechnical engineer could prevent the clear problems from occurring, by having the foundation soils compacted, and by importing suitable engineered fill/material with specific low permeability characteristics where necessary. It is assumed that an environmental authorisation would be applied for the proposed development to allow the

construction close to the waterbody (in this case the wetlands), if so and approved, it will eliminate or reduce the concerns and risks of water seepages that may affect the proposed development stability and operations due to seasonal water level fluctuations.

- 2.3. After consideration that this proposed development has some potential to further contaminate the already impacted groundwater and foundation soils due to the activities at ground level, such as bus washing and workshop activities (hydraulic fuels), underground and above ground fuel storage, ingress of contaminated runoff and stormwater; significant mitigation measures must be put in place to mitigate further impact on the soil and groundwater in this area.
- 2.4. The Geotechnical Investigation provided 3 practical options: (1) Dynamic Compaction, (2) Rapid Impact Compaction and (3) Removal of a portion of the fill, crush and recompact. The third option seems to be the most appropriate option for this proposed development from a geotechnical engineering perspective together with the above-mentioned possible environmental authorisation conditions.
- 2.5. If this proposed area is to be rehabilitated and decommissioned in terms of the Waste Listed Activities, a Waste Management Licence will be issued that will hold the responsible persons with continuous environmental monitoring conditions and costs until such time its proven that any potential risks have subsided. It is therefore proposed to handle this matter through the Part 8 of the National Environmental Management Waste Act 2008 (Act 59 of 2008) NEMWA, which deals with Contaminated Land.
- 2.6. The management of waste under all circumstance must be done in accordance with section 16, the "general duty in respect of waste management", of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008) which states:

"A holder of waste must, within the holder's power, take all reasonable measures to manage waste in such a manner that it does not endanger health or the environment or cause a nuisance through noise, odour or visual impacts."

- 2.7. Please note that section 2(4)(p) of the National Environmental Management Act, 1998 (NEMA (Act No.107), 1998) states:

"The cost of remedying pollution, environmental degradation and consequent adverse health effects and preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment."

It is therefore recommended that suitable mitigation be taken, to protect the environment when this development materialises as well as when this development needs to be decommissioned, especially in consideration of paragraph 2.5 above.

- 2.8. The Directorate: Pollution and Chemicals Management of this Department must be consulted on this matter, particularly about the remediation of contaminated land. Please be advised to seek such comments from Simon Botha copied in below.
- 2.9. Kindly note that due to limited information having been provided, the Department assumes that the impact of this proposed development on the adjacent wetland will be addressed in the forthcoming environmental impact assessment reports for the listed activities that require environmental authorisation.

3. The Department reserves the right to revise initial comments and request further information based on the information received.

Yours faithfully

DEPUTY DIRECTOR: WASTE MANAGEMENT LICENSING / DIRECTOR: WASTE MANAGEMENT

CC: (1) Simon Botha (Pollution and Chemicals Management)
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