



GAUTENG PROVINCE

ENVIRONMENT
REPUBLIC OF SOUTH AFRICA

Enquiries: Ms. Khensani Mahatlani
Directorate: Pollution and Waste Management
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Email: Khensani.Mahatlani@gauteng.gov.za
Reference No.: Gaut 002/23-24/W0028

Ms. San Oosthuizen
EcoPartners (Pty) Ltd
P. O. Box 73513
Fairland
Johannesburg
2030

Email: san@ecopartners.co.za

Dear Ms. Oosthuizen,

RE: REQUEST FOR ADDITIONAL INFORMATION ON THE DETAIL DESIGN DRAWING REPORT FOR THE PROPOSED DEVELOPMENT OF THE MIDDELWATER GENERAL WASTE RESOURCE FACILITY LOCATED ON PORTION MIDDELWATER 593 JQ, VISSERSHOEK 435 JQ, WILDEBEESTHOEK 310 JR WITHIN THE CITY OF TSHWANE METROPOLITAN MUNICIPALITY

The Middelwater Resource Facility (Pty) Ltd proposed new lining cell for the Middelwater Landfill Development, phase 1 (Cells 1 to 6) dated February 2023 as recorded in the report titled, Environmental Impact Report and Environmental Management Programme dated 22 August 2024, in support of the Middelwater Waste Management Licence Application (Previously known as the Multisand application), received by the Department on 27 September 2024, and the additional information received by the Department on 18 October 2024, has reference.

Please be advised that based on the technical assessment of the submitted documents for the proposed development of the Middelwater Resource Facility (Pty) Ltd Class B landfill site (Cell 1 to Cell 6) and Associated Works Detail Design Report (Reference: 755-2022) compiled by Envitech Solutions (Pty) Ltd and signed by K.P. Mutolovich (PrEng #20190729), the Department has decided to request for additional information.

1. Aspects and Reports taken into consideration.

- 1.1 The Environmental Impact Assessment Report and Environmental Management Programme for Comment in support of the Middelwater Resource Facility (Pty) Ltd Waste Management Licence Application

- (Previously known as Multisand application) Middelwater Resource Facility (Pty) Ltd Volume 1b of 4, with reference 002/23-24/W0028, undated, including the following appendices:
- 1.1.1 Appendix 1 - CVs and Certificates.
 - 1.1.2 Appendix 2 - Envitech Design Report, Checklist and Drawings (no design report submitted; it's a Construction Quality Assurance (CQA) Plan).
 - 1.1.3 Appendix A - Drawings.
 - 1.1.4 Appendix B - CQA Plan (which just includes an Appendix A- Lining Specifications).
 - 1.1.5 Appendix C - Calculations.
 - 1.1.6 Appendix D - Geohydrology Report.
 - 1.1.7 Appendix 3 - Envitech Operational Manual.
- 1.2 MBHE Environmental (Pty) Ltd Middelwater Landfill Development proposed Middelwater Class B Waste Facility Design Report with reference 755-2022, dated February 2023, compiled by Envitech Solutions (Pty) Ltd, signed by K.P. Mutolovich PrEng#20190729.
- 1.3 Drawings: Twenty-two (22) A3 signed drawings (signed by K.P. Matulovich PrEng #20190729): Hydrogeological Investigation:
- 1.3.1 755-2022-001 Rev A Schedule of Drawings.
 - 1.3.2 755-2022-002 Rev A General Survey and Farm Portions.
 - 1.3.3 755-2022-003 Rev A Site Infrastructure Layout.
 - 1.3.4 755-2022-004 Rev A General Cell Layout Plan.
 - 1.3.5 755-2022-005 Rev A Phase 1 Layout Plan.
 - 1.3.6 755-2022-006 Rev A Phase 1 Sections.
 - 1.3.7 755-2022-007 Rev A Cell 1 Excavation Layout Plan.
 - 1.3.8 755-2022-008 Rev A Cell 1 Sections.
 - 1.3.9 755-2022-009 Rev A Landfill Typical Liner Details.
 - 1.3.10 755-2022-010 Rev A Phase 1 Fill Model.
 - 1.3.11 755-2022-011 Rev A Phase 1 Fill Model Sections.
 - 1.3.12 755-2022-012 Rev A Site Complete Fill Model and Capping General Layout Plan.
 - 1.3.13 755-2022-013 Rev A General Leachate Management Plan.
 - 1.3.14 755-2022-014 Rev A Leachate Management Typical Details (Entire Site).
 - 1.3.15 755-2022-015 Rev A Leachate Dam Layout Plan.
 - 1.3.16 755-2022-016 Rev A Leachate Dam Sections.
 - 1.3.17 755-2022-017 Rev A Leachate Dam Typical Details.
 - 1.3.18 755-2022-018 Rev A Stormwater Dam Layout.
 - 1.3.19 755-2022-019 Rev A Contaminated Stormwater Dam Layout.
 - 1.3.20 755-2022-020 Rev A Contaminated Stormwater Dam Details Sheet 1 of 2.
 - 1.3.21 755-2022-020 Rev A Contaminated Stormwater Dam Details Sheet 2 of 2.
 - 1.3.22 755-2022-021 Rev A Dams Spillway Details.
- 1.4 The Gauteng Department of Agriculture and Rural Development now known as the Gauteng Department of Environment Checklist, signed for the Applicant by Gert van Rensburg (17 September 2024) and for the Engineer by KP Matulovich PrEng #20190729 (20 February 2023).
- 1.5 The Department of Water and Sanitation Directorate Water Abstraction and In-stream Impact Geohydrology comments dated 12 March 2025.
- 1.6 The Department of Water and Sanitation Chief Directorate Engineering Services comments dated 27 June 2025.
- 1.7 The Department of Water and Sanitation Record of Decision with reference 16/2/7/A210/C346, dated 31 December 2015, issued to Multisand Regional Waste Disposal Facility (currently known as Middelwater Resource Facility (Pty) Ltd).

1.8 The Department of Water and Sanitation Record of Decision dated 31 July 2025, issued to Middelwater Resource Facility (Pty) Ltd (previously known as Multisand Regional Waste Disposal Facility).

2 Additional and/or Amendments Requested:

- 2.1 Middelwater Resource Facility (Pty) Ltd must provide a flow diagram identifying the source and destination of clean stormwater runoff, polluted stormwater runoff, and leachate, recognising the change to runoff areas with time.
- 2.2 Middelwater Resource Facility (Pty) Ltd must confirm the adequacy of clean water conveyance systems to accommodate the 1:50 year, 24-hour flood event, including freeboard in accordance with the SANRAL drainage manual of 2013 prescripts.
 - This confirmation of adequate capacity must be included in the amended documents and submitted to the Department.
- 2.3 For both the polluted storm water runoff and the leachate storage systems (including leachate dam and contaminated stormwater dam and associated conveyance systems), Middelwater Resource Facility (Pty) Ltd must demonstrate the storage capacity to meet or exceed the 1 in 50-year 24-hour storm capacity (using updated rainfall records) for active cells, unless it can be shown that a smaller volume is accepted noting that the Middelwater Resource Facility (Pty) Ltd remains responsible for clean-up of all spill events.
 - The demonstration must be included in the amended documents and submitted to the Department.
- 2.4 Middelwater Resource Facility (Pty) Ltd must provide a general layout arrangement drawing for the leachate collection system (LCS) and the underdrainage pipe collection system.
 - These drawings must clearly illustrate the alignment, component details, and connectivity of the systems.
 - The signed design drawing must be submitted to the Department for approval.
- 2.5 Middelwater Resource Facility (Pty) Ltd must confirm that the base preparation layer meets at least the minimum thickness requirements as stipulated in NEMWA Regulation 636 of 2013.
 - This confirmation must be attached to the amended documents and submitted to the Department.
- 2.6 Middelwater Resource Facility (Pty) Ltd must confirm that the veneer stability for the waste cell meets the factor of safety as reported in the design report, using actual materials (geosynthetics and natural) used in all the pollution control works.
 - The veneer stability should take cognisance of construction loading (vehicular) as well as give particular attention to the determination and selection of critical interface as the existing veneer stability analysis makes use of the geomembrane/geosynthetic clay liner interface rather than geomembrane/geotextile or other potentially more critical interface.
 - This confirmation must be attached to the amended documents and submitted to the Department.
- 2.7 Middelwater Resource Facility (Pty) Ltd must confirm the veneer stability of the barrier system using actual materials used in the pollution control works to meet or exceed a factor of safety of 1.5, taking construction and operational loading into account.
 - The written confirmation must be attached to the amended documents and submitted to the Department.
- 2.8 Middelwater Resource Facility (Pty) Ltd must demonstrate the adequacy of drainage pipes, including their joints, to maintain containment equivalent to the barrier system from point of

penetration of the liner system up to and including external leachate sumps and/or leachate storage facilities.

- 2.9 Middelwater Resource Facility (Pty) Ltd must develop a design drawing which details and confirms the continuity of containment for the separation of berm anchor trenches between successive waste cells.
- The design drawing must be submitted to the Department for approval, together with the amended documents.
- 2.10 Middelwater Resource Facility (Pty) Ltd must develop a design drawing which details and confirms the continuity of containment for the proposed contaminated stormwater channels.
- The design drawing must be submitted to the Department for approval, together with the amended documents.
- 2.11 The construction quality assurance (CQA) plan must be amended to include a record of the nature and extent of wrinkles in geomembranes, records of geomembrane temperature at time of welding and placement of cover material, records of wedge weld thickness of samples taken for destructive testing and records of independent testing of other geosynthetic materials (such as geosynthetic clay liners, geotextile cushion layers, geodrains and geopipes) and in accordance with advances in technology and accepted engineering practice, as well as the following:
- The CQA must be amended to ensure that the maximum wrinkle height may not exceed half of the width, with a maximum wrinkle height of 6 cm.
 - The CQA must be amended to ensure that hydraulic conductivity and Visual-Method Soil Classification for construction testing of the drainage gravel layer and leachate collection system drainage layer are conducted.
- 2.12 Middelwater Resource Facility (Pty) Ltd must provide a comprehensive motivation demonstrating the need and desirability for the proposed Class B landfill site instead of a Class D landfill site.
- 2.13 Given the existence of cemeteries in proximity to the proposed site and the associated activities, as well as the absence of comments from the Provincial Heritage Resources Authority in the final EIR, Middelwater Resource Facility (Pty) Ltd must commission and provide an archaeological and heritage study.
- 2.14 All comments submitted by registered interested and affected parties must be comprehensively and properly addressed. Where specific comments or objections could not be addressed, the amended documents must clearly indicate this and provide well motivated reasons for the inability to address such issues.
- 2.15 All additional comments received, together with the corresponding responses, must be submitted as part of the amended documents.
- 2.16 The above-mentioned amended documents must be submitted to the Department within **ninety (90) days** from the date of signature of this letter.

Should you have any enquiries regarding this letter, please contact Ms. Khensani Mahatlani on the contact details given above.

Kind regards,



Ms. P Mathibeli
Director: Pollution and Waste Management
Date: 28/11/2025

CC:

Middelwater Resource Facility (Pty) Ltd

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