



# forestry, fisheries & the environment

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Forestry, Fisheries and the Environment  
**REPUBLIC OF SOUTH AFRICA**

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Dear Mr Brink

## **APPROVAL DECISION FOR THE CONSTRUCTION COMPLETION OF ENVIROSERV SHONGWENI WASTE DISPOSAL FACILITY DEVELOPMENT VALLEY 3, CELL 1, PHASE 1, ETHEKWINI METROPOLITAN MUNICIPALITY, KWAZULU NATAL PROVINCE.**

The request for approval of the construction completion approval for Enviroserv Shongweni Waste Disposal Facility Development Valley 3, Cell 1, Phase 1, dated July 2025 has reference.

### **1. DOCUMENTS AND ASPECTS TAKEN INTO CONSIDERATION:**

- 1.1 Shongweni Waste Management Facility Construction of Valley 3 Cell 1 – Phase 1 Construction Completion Report with reference JW222/25/8385-00-Rev0 dated July 2025 compiled by Jones & Wagener (Pty) Ltd Engineering & Environmental Consultants signed by Vishan Singh PrEng (Resident Engineer); Ryan van der Merwe (Assistant Resident Engineer); Johnny Orikot PrEng #202101880 (Project Manager); Johan le Roux PrTech (3rd Party Independent CQA Consultant) and Jabulile Msiza PrEng #20100125 (Project Director) with the following Appendices:
  - 1.1.1 Appendix A: Waste Management License & DFFE Approval Letter.
  - 1.1.2 Appendix B: HDPE Geomembrane Installation Quality Documentation.
  - 1.1.3 Appendix C: Geosynthetic Clay Liner Installation Quality Documentation.



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- 1.1.4 Appendix D: Photographic Record.
  - 1.1.5 Appendix E: Quality Conformance Test Results.
  - 1.1.6 Appendix F: Appointment Letter.
  - 1.1.7 Appendix G: Progress Meetings Minutes.
  - 1.1.8 Appendix H: As-Built Drawings.
  - 1.1.9 Appendix I: Construction Register.
  - 1.1.10 Appendix J: Third Party Construction Quality Assurance.
  - 1.1.11 Appendix K: In-Situ Geomembrane Strain Test Results.
  - 1.1.12 Appendix L: Stability Analyses.
  - 1.1.13 Appendix M: Geosynthetic Clay Liner Compatibility Testing with Site Leachate.
  - 1.1.14 Appendix N: HDPE Geomembrane Compatibility Testing with Site Leachate.
  - 1.1.15 Appendix O: Geotextile Compatibility Testing with Site Leachate.
  - 1.1.16 Appendix P: Geotextile Heat-Bond Test Results.
  - 1.1.17 Appendix Q: Electric Leak Location Survey Test Results.
  - 1.1.18 Appendix R: Valley 1 Stormwater Dam Re-Lining Site Pictures.
  - 1.1.19 Appendix S: Valley 2 Stormwater Dam As-Built Drawings.
  - 1.1.20 Appendix T: Valley 3 Geological Fault and Geotechnical Features.
  - 1.1.21 Appendix U: Shongweni 1:100-Year Floodline Determination.
  - 1.1.22 Appendix V: Valley 2 Leachate Temperature & Chemistry.
- 1.2 Fifteen signed (signed by J Msiza PrEng #20100125) drawings in Appendix H of the construction completion report – 8358-14-002 Shongweni Landfill Site Valley 3 Cell 1 General Arrangement; 8358-14-004 Shongweni Landfill Site Valley 3 Cell 1 Phase 1 General Sections, Typical Sections; 8358-14-005 Shongweni Landfill Site Valley 3 Cell 1 Earthworks in Basin Layout and Setting Out; 8358-14-008 Shongweni Landfill Site Valley 3 Cell 1 Barrier System and tie-in Details Typical Sections; 8358-14-009 Shongweni Landfill Site Valley 3 Cell 1 Subsoil Drainage System Layout and Sections; 8358-14-010 Shongweni Landfill Site Valley 3 Cell 1 Leakage Detection Drainage System Layout and Sections; 8358-14-011 Shongweni Landfill Site Valley 3 Cell 1 Leachate Collection Drainage Network Layout and Sections; 8358-14-012 Shongweni Landfill Site Valley 3 Cell 1 Starter Wall Liner Penetration Concrete Details; 8358-14-013 Shongweni Landfill Site Valley 3 Cell 1 Stability Berm Upstream Liner Penetration Concrete Details; 8358-14-014 Shongweni Landfill Site Valley 3 Cell 1 Stability Berm Downstream Liner Penetration Concrete Details; 8358-14-025 Shongweni Landfill Site Valley 3 Cell 1 Drainage System Miscellaneous Details; 8358-14-026 Shongweni Landfill Site Valley 3 Cell 1 Permanent Stormwater Canals Details; 8358-14-036 Shongweni Landfill Site Valley 3 Cell 1 Dirty SW Canal Concrete & Reinforced Details; 8358-14-037 Shongweni Landfill Site Valley 3 Cell 1 Dirty SW Canal, Canal & Transition Concrete Details; 8358-14-038 Shongweni Landfill Site Valley 3 Cell 1 Dirty SW Canal Middle Segment Conc. & Reif. Details.
- 1.3 Power point presentation given at the onsite inspection on 29 July 2025.
- 1.4 Permit to discharge treated contaminated stormwater delivered by road haulage to Southern Wastewater Treatment Works (SWWTW) dated 14 January 2025.

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- 1.5 Jones & Wagener Consulting Engineers letter to DWS (Attention Mr M. Noe and Mr KJP Bester) having reference 8358-14-LET-250812 dated 12/08/2025 re: Project Shongweni Waste Management Facility Valley 3 Anticipated Design Life of HDPE Geomembrane with the following appendices:
- 1.5.1 Appendix 1: Summarized comparison of the Shongweni & Holfontein leachate chemistry.
- 1.5.2 Appendix 2: HDPE geomembrane immersion test results with Holfontein synthetic leachate (TRI Environmental).
- 1.5.3 Appendix 3: Valley 2 Leachate Chemistry & Temperature.
- 1.5.4 Appendix 4: Valley 1 Leachate Chemistry & Temperature.
- 1.6 The Department of Water and Sanitation Record of Decision dated 07 November 2025.

**2. DECISION**

- 2.1 Based on the technical assessment of the EnviroServ Waste Management (Pty) Ltd Construction Completion Report for the Shongweni Waste Management Facility, Construction of Valley 3 Cell 1 – Phase 1, as detailed in the report titled “*Shongweni Waste Management Facility Construction of Valley 3 Cell 1 – Phase 1 Construction Completion Report (CCR)*”, with reference JW222/25/8385-00-Rev 0, dated July 2025, compiled by Jones & Wagener (Pty) Ltd Engineering & Environmental Consultants and its appendices, the Department is satisfied that the submission, together with its appendices, fulfils the waste management conditions stipulated in the Waste Management Licence dated 11 July 2024. Accordingly, the Department hereby authorises the commencement of waste placement, subject to the following conditions:
- 2.1.1 The Licence Holder shall provide the Department with the test results relied upon for stability which confirms that the selected site-specific material shear strengths and other parameters are the same as those obtained during site specific testing. Such confirmation shall be provided to the Department within one month of the date of this Decision.
- 2.1.2 A series of multiple piezometers or similar shall be included to confirm the phreatic head assumed in stability calculations due to concerns regarding both the geotextile (GT) filter above the critical leachate collection system (LCS) and the assumed increased in waste material strength despite its near saturated condition.
- 2.1.3 The Licence Holder shall incorporate temperature monitoring instruments (thermocouples) or confirm in writing that the installed piezometer can also measure temperature within Valley 3: Cell 1 – Phase 1 to fully satisfy the condition of the Licence, to confirm the long-term performance of the barrier system. In addition, an as-built drawing, signed by a Professional Engineer registered with the Engineering Council of South Africa (ECSA), confirming the location of each installed monitoring instrument, shall be submitted to the Department within one month of the date of this Decision. The as-built drawing shall clearly indicate the X and Y coordinates of the position of each monitoring instrument.

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- 2.1.4 The Licence Holder shall submit to the Department, within one month of receipt, the results of the Oxidation Induction Time (OIT) testing to oxidative failure of the pipes utilized. This submission shall serve to conclusively confirm full compliance with the approved project specifications.
- 2.1.5 The Licence Holder shall be required to submit the reassessed total solute seepage within one month of the date of this Decision, which confirms that the reassessed values are equal or better than the predicted values determined at design stage.
- 2.1.6 The Licence Holder's Engineer and construction quality assurance (CQA) monitor shall ensure that all wrinkles in the geomembrane (GM) and geotextiles (GTs) are minimised and remain within the specified limits prior to the placement of stone for the future phase construction of Valley 3 at the Shongweni Waste Management Facility.

Should you require further detailed information, please do not hesitate to contact this office.

Yours sincerely



**MS. MISHALLE GOVENDER**  
**CHIEF DIRECTOR- HAZARDOUS WASTE MANAGEMENT AND LICENSING**  
**DATE: 21 November 2025**