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**TO** Sam Mangione  
Alkina Holdings Pty Ltd

**CC**

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## **WORKS APPROVAL APPLICATION – DESKTOP ASSESSMENT – STABILITY ASSESSMENT**

### **1.0 INTRODUCTION**

This technical memorandum presents a desktop summary of publicly available information for the Great Southern Landfill Site related to the stability assessment completed for the Allawuna Landfill. The Great Southern Landfill Site, outside York, Western Australia, was previously referred to as Allawuna Farm Landfill (AFL), and a Works Approval Application (WAA) was prepared by SUEZ and granted by the Department of Environment Regulation (DER) (now the Department of Water and Environmental Regulation, DWER) on 17 March 2016; it was subsequently withdrawn by SUEZ. The WAA by SUEZ is publicly available on the DWER website.

### **2.0 PUBLICALLY AVAILABLE INFORMATION**

#### **2.1 WAA data**

The supporting works approval application provided the following documents for review:

- Stability Analysis and Liner System Integrity Assessment for Landfill Development (Golder, 2015a).
- Allawuna Farm Works Approval Application: W5830/2015/1 Further Information – Appendix J – Stability Assessment (Golder, 2015b).

An assessment was undertaken based on the design information included in the stability assessment reports against the revised GSL design.

#### **2.2 Discussion**

The only significant variance between the two designs is the number of cells that the landfills have been divided into. This design variance has no implication on the stability of the GSL. In other words, the design assessed for stability in 2015 is still relevant and the GSL has been design for the same:

- Location, footprint and foundations materials,
- Cross-sectional embankment and bund design (including slopes, embankment elevation, crest widths and lengths), and construction materials,
- Waste slopes and waste type,
- Basal liner system and
- Capping system

Note that Alkina has integrated all the recommended changes to the initial design geometry for Allawuna, based on the Stability Assessment and Liner interface assessment carried out for Allawuna. The assessments carried out are summarised below and are still relevant to the new GSL facility.

### **3.0 CONCLUSION**

As the design of the facility is similar the stability assessment is still valid and did not raise any issues of concern.

#### **GOLDER ASSOCIATES PTY LTD**

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Attachments: A – Stability Analysis and Liner System Integrity Assessment for Landfill Development  
B – Addendum to the Allawuna Farm Landfill Works Approval Application – Landfill Stability

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**ATTACHMENT A**

**Stability Analysis and Liner System Integrity Assessment for Landfill Development  
(Document Ref. 147651033-012-R-Rev0, dated March 2015)**

**ATTACHMENT B**

**Addendum to the Allawuna Farm Landfill Works Approval Application – Landfill Stability  
(Document Ref. 147651033-025-M-RevA, dated 14 July 2015)**