

29th March 2018

Your ref:

Our ref: ARC16/1461

Chris Ritchie  
Director Industry Assessments  
Department of Planning and Environment Industry Assessments  
GPO Box 39  
Sydney NSW 2001

Dear Mr. Ritchie,

**RE: Application to modify Project Approval No. 06\_0220  
Armidale Regional Landfill Development Project- Waterfall Way**

We refer to our letter of 14 February 2018 regarding proposed minor design changes to the landfill's leachate management system and to subsequent discussions between our solicitor Ross Fox, of Fishburn Watson O'Brien and Kelly McNicol, Team Leader Industry Assessments.

**Overview**

While Council considers that the proposed design changes are generally in accordance with the Project Approval 06-220 (**Project Approval**), in order to remove any uncertainty Council now wishes to the lodge an application to modify this Approval. Accordingly, an application to modify the Project Approval is attached for your urgent consideration.

The application to modify the Project Approval seeks the following minor modifications to the design of the leachate management system:

1. to replace the 900mm clay landfill base liner with a geosynthetic clay liner (GCL),
2. to reduce the thickness of the leachate pond clay fill liner from 900mm to 600mm thick through the use of less permeable clay fill; and
3. to replace the sidewall leachate drainage gravel with drainage geocomposite.

**Background and issues**

Following approval Council finalised the design of the new landfill and actioned all of the consent conditions, including the development and ratification of the required Management Plans. As soon as these were approved by the appropriate authorities Council prepared tender documents for the construction of the landfill.

Work on the landfill commence in May 2016 with a couple of preliminary contracts, namely the perimeter fencing followed by the intersection with Waterfall Way.

During the tender process for the main landfill contract it was requested by the tenderers that they be able to

utilise a GCL in place of the 900mm clay landfill base liner on the basis that the EPA's landfill guidelines identify that both these liners offer equivalent performance. This resulted in Council's consultants being asked to re-design the landfill liner using a GCL. This potentially reduced the need for a large quantity of clay required under the HDPE geomembrane liner for the landfill cell. The proposed redesign was discussed with EPA at that time and the contract was tendered on this basis.

### **Current status**

In April 2017 work started on the main landfill contract. Subsequently good progress has been made on the construction of the new landfill cell and the supporting infrastructure. Unfortunately, despite intensive geotechnical investigative work both on the site and at other possible sources of clay within the Armidale region, the contractor was unable to find even the reduced amount of clay required to meet the proposed revised design. Their investigations concluded that suitable clay of a much higher performance standard existed on site but not in sufficient quantities for both the leachate pond and the landfill cell liners.

Since becoming aware of this situation at the end of October 2017, Council and its project team, including the construction quality assurance consultants, have developed a compliant liner re-design for the leachate pond and the landfill cell based on the material available.

### **Next steps**

Council has attached our Application to Modify the Project Approval (with two supporting documents from GHD) for your determination.

Council has contacted the EPA and requested it advise whether it would endorse the proposed minor modifications to the design of the leachate management system. Council has been advised by the local office of the EPA that it does endorse the proposed design changes and they have issued a letter to Council in support of this application. EPA's letter of endorsement is attached.

Given that construction is partly completed and due to the shortage of landfill capacity at Council's existing operational landfill, Council is facing some pressure to obtain ratification of the proposed minor variation. Therefore any assistance that you are able to provide to expedite the determination of the attached application would be very much appreciated.

Council thereby request that our application be considered with some urgency.

Yours sincerely,



Ken Fox

**Armidale Regional Council**

Attachments:

Application to Modify a Development Consent

EPA's Letter of Endorsement - Armidale Regional Landfill - Proposed liner redesign - DA06\_220

Regional Landfill Construction CQA design amendments recommendations 14th February 2018

Regional Landfill Construction CQA: addendum to site management plans 14th February 2018