



Project: EXTENSION OF ABATTOIR AND WOOL SCOUR
Environmental Impact Statement

Location: Dubbo, Western NSW
Client: Confidential

Highlights

- Major regional abattoir, wool scour and top card-making plant
- Land disposal of organic wastes
- Hydrogeological investigation and preparation of Management and Groundwater Monitoring Plan.

Background

C. M. Jewell & Associates Pty Ltd was commissioned by the owner of the site and abattoir to undertake a hydrogeological study as part of the preparation of an EIS and environmental management plan. The abattoir, in operation for a number of years, disposed of surplus waste-water by land application. Following the proposed expansion, the waste-water stream was expected to increase to 1.3 ML/d.

Hydrogeological Environment

The site geology is complex: Jurassic-age Great Artesian Basin Sediments are overlain by remnant Tertiary flood basalts and by more recent alluvial and colluvial deposits. To the north of the site there are high-yielding alluvial aquifers of the Macquarie River system, from which the local potable water supply is obtained.

Objectives and Scope

Following a desk study and preparation of an inception report, and discussion with the Department of Water Resources and the EPA, a field program involving geological mapping drilling, test pitting, geological and geophysical logging, test pumping, sampling and laboratory analysis was carried out.

A conceptual model was developed, outlining the complex hydrogeology of the site. Conclusions as to the anticipated impact of the expanded operation on the Macquarie River aquifer were drawn, and recommendations made for management and monitoring of the waste disposal operation.

A detailed report setting out the results, conclusions and recommendations of the study was prepared and submitted as part of the EIS for the development.