# **GALT GEOTECHNICS PTY LTD**

## **GEOTECHNICAL ENGINEERING CONSULTANTS**



### CAPABILITY STATEMENT 17-DAM DESIGN

Analysis, Design and Construction Supervision of Embankment Dams

#### **DAM DESIGN**

Water retaining dams and tailings dams are high risk items for a project owner. The risk of failure brings significant potential for damage and litigation. Construction costs are high and therefore there is a need to get it right in the most economical way possible.

A typical design process for a water retaining dam is as follows:

- Concept design/sketches to establish water volumes and earthworks quantities
- Hydrological assessment for flood events
- Geotechnical and hydrogeological investigation for embankment footprint and borrow materials
- Spillway and diversion channel design
- Filter design (if needed)
- Draft drawings and quantities for client approval
- Issued-for-construction (IFC) drawings and quantities, including basis of design and construction method statement
- As-constructed drawings

Drawings are often transferred electronically and 3D models uploaded into construction equipment for machine control to remove interpretation and guesswork out of plans.





#### WHAT CAN GALT OFFER

Galt has skilled civil designers, geotechnical engineers, hydrogeologists and hydrologists to address all aspects of dam design. This includes:

- Design taking into account standards established by ANCOLD
- Ground investigation
- Full documentation
- Construction quality assurance
- Full or part time engineering support on site, including resident engineer representation and laboratory testing.
- Construction troubleshooting
- Materials search
- Close-out documentation and operating manuals

Contact us today for more information

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