

# Bathymetry Creation & Dam Storage Analysis

BMT WBM was commissioned by the SEQWater to create digital bathymetry of four of its dams; Baroon Pocket, Leslie Harrison, Ewen Maddock, and Lake Manchester. The bathymetry, a digital elevation model (DEM) was created from the best available existing and newly captured data sets that cover the dams.

A major component of the project was to join data allowing for a smooth transition (seamless joins) from one data set to another. Data used included newly collected bathymetry survey transects, lidar data and a 20m DEM.

The newly built DEM 3D surfaces (the physical shape of the dam floors) was the best way of calculating water storages. The volume of water at any height can be calculated from storage curves that were created for the four dams. A storage curve is a table of the storage in a dam for a given depth of water.

Results (storage curves) created from the study allowed SEQWater to efficiently investigate the dams with the most recent data rather than just relying on old, mostly outdated information.

**Client**  
SEQWater

**Date**  
2010

## Services & Expertise Provided

Build and analyse Digital Elevation Models of four of SEQWater's storages:

- Baroon Pocket Dam,
- Leslie Harrison Dam,
- Ewen Maddock Dam, and
- Lake Manchester

Storage curves for each Dam

