

Water & Environment – Waterway Management

Moores Gully

Project Overview

As Flood Mitigation Consultants Brown Consulting joined the Bluewater project team (lead by Flanagan Consulting) to help develop an optimal flood mitigating solution for the Master Planning of the Bluewater Development located at Moores Gully North Queensland. After being involved with the project for more than five years, the team's innovative work was recognised with the project recently named the Engineers Australia, Cairns **Project of the Year for 2010**. Moores Gully flooding was previously considered as a major constraint for the master planning of the development site. The Bluewater development site is located 15kms north of Cairns and is located within the lower reaches of the Moores Gully catchment. Moores Gully catchment size is 730ha resulting in flows of 150m³/sec in the 100yr ARI event.

Scope of Services

Brown Consulting was engaged to undertake hydraulic modelling and a review of the hydrology pertaining to the Moores Gully site catchment. By using a catchment-based approach, as opposed to a site-based approach, and through the development of a comprehensive 2D flood model, the project team helped to deliver a solution that adequately conveyed flood flows through the site whilst maintaining no adverse impacts on the adjacent properties. The model demonstrated major improvements to the flood immunity of the site and resulted in major earthworks savings and an increased lot yield for the developer. This project delivered a solution that had a positive outcome for the surrounding community and the developer.

Key Project Components

Engineering services included:

- Flood Impact Assessment
- 2D Flood Modelling (SOBEK Analysis)
- Flood Mitigation Investigation and Investigation
- Detailed design of riparian corridor.

Fast Facts

- **Client:** Multiplex Developments and subsequently Brookfield Residential Properties.
- **Location:** Bluewater, Cairns - QLD
- **Local authority:** Cairns City Council
- **Date completed:** December 2009
- **Key responsibilities:** Flood management, flood studies, flood mitigation, Liaison with Authorities and Operational Works Design for Riparian Corridor.

