



Rookwood Weir

Client/s: ACCIONA

Location: Lower Fitzroy River, (south of Rockhampton, Qld)

Project Value: \$568.9M

Services: CMT and Geotechnical Engineering

Construction Sciences Units:
Rookwood Weir Annex Lab,
Rockhampton Lab and CQ Engineering

Project Description:

Rookwood Weir is a landmark project located on the lower Fitzroy River, around 66 km south-west of Rockhampton. The weir will capture water from the lower Fitzroy River to enable landholders to transition to higher value agricultural land use, facilitate new industrial business opportunities and provide future water security for the central Queensland region.

The Rookwood Weir project includes: the construction of an uncontrolled concrete gravity weir on the Fitzroy River, downstream of the Mackenzie and Dawson river systems; structural works on the right riverbank including the installation of intake screens, a low flow outlet and fishlock; and earth fill and concrete abutments.

Construction of the weir will be managed by the Rookwood Weir Alliance, and is jointly funded by the Australian and Queensland Governments.

Sunwater and Rookwood Weir Alliance partners ACCIONA and GHD were recognised by the Concrete Institute of Australia with a state 'Award for Excellence' for the design and placement of concrete at the weir. The innovative concrete mix has resulted in reduced cement volumes, energy and carbon savings, and waste reuse. In addition, the weir features a world-leading concrete fish lock and turtle passage that will minimise the impact on the movement of 37 fish and six turtle species. By using the unique mass concrete design, the project expects to achieve a 100-year design life.

Our Role:

Construction Sciences established an on-site annex laboratory at the Rookwood Weir construction area to conduct concrete trials and perform ongoing concrete testing for the project. Construction Sciences was also engaged to install, calibrate and commission Vibrating Wire Piezometers within the left bank of the weir including previous geotechnical rock core logging of boreholes.