



## water infrastructure industry profile

**frc environmental** has the expertise and experience to deliver insight across the full range of aquatic environments, from freshwater and estuarine to marine ecosystems. Our wide-ranging capabilities in survey, assessment, management, monitoring and reporting enable us to give you absolute clarity and the confidence for action.

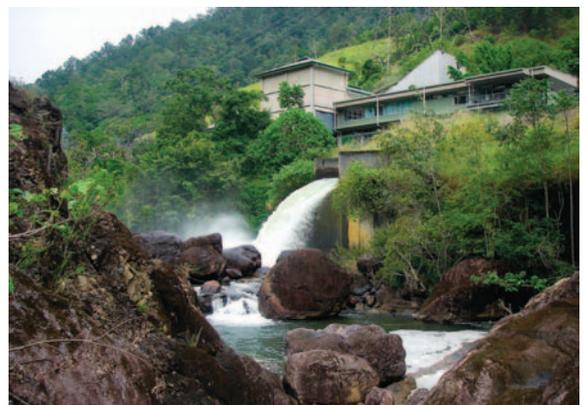
**If it involves water, it involves frc environmental.**

### Water Infrastructure

The production, storage and distribution of potable water, whilst never more critical to our way of life, is increasingly recognised for its potential environmental impacts. **frc environmental** has the depth of understanding and experience to support responsible infrastructure planning and confident action.

**frc environmental** has played a key role in the development of desalination and re-use water infrastructure; in the construction and operation of dams and weirs; and in the design and construction of inter-basin pipelines. In fact **frc environmental** was the only aquatic ecosystems consultant appointed by Queensland Water Infrastructure and SunWater to work on the all five of south-east and central Queensland's major capture water infrastructure projects this decade; the proposed Traveston Crossing Dam, Wyaralong Dam, Connors River Dam, Nathan Dam and Fitzroy Weir; and the major pipelines serving the central Queensland coal fields.

Whether it is the coastal waters of NSW, ephemeral streams of the Queensland outback, or the fast-flowing waters of the Tasmanian high country, **frc environmental**'s ecologists offer an in-depth understanding of ecosystems, and of species and habitat of conservational significance. Our knowledge of key species and of their environmental tolerances enables us to provide robust, site-specific advice, enabling our clients to optimise design, construction and operation, and to progress with confidence.



*An impressive scene – the Tully River Tail Race flows when water from the turbines is discharged into an open concrete sluiceway*



*Determination of appropriate environmental flows over the Barron Falls is of key interest to Stanwell Corporation – a planned approach to survey and sampling is critical*

**“frc environmental** delivered everything they said they would, coming in on time and on budget. Their work was thorough and the final report was written in easy to understand language. **frc environmental** have proven to us that they have vast capabilities and experience, and we look forward to engaging them on future projects.”

**Chris Campbell,**

Senior Planner Community Development  
Parsons Brinckerhoff Australia



○ freshwater

○ estuarine

○ marine

Rigorous quantitative studies of appropriate scope and detail, provide the basis upon which environmental impacts may be confidently predicted, practical environmental management plans developed, and cost-effective monitoring programs designed. Experience counts – and few can match the depth of experience offered by **frc environmental**.

## Agnes Water Desalination Project

Gladstone Regional Council had proposed the development of a seawater desalination facility, to be located in the small town of Agnes Water, with the intake and brine outfall at Chinaman's Beach. This proposal required significant environmental consideration, as Chinaman's Beach lies within the conservation significant Great Barrier Reef World Heritage Area and is an important turtle breeding area.

**frc environmental** was engaged to assist Gladstone Regional Council and subsequently, the nominated contractor United Utilities Australia, contributing to both the determination of the feasibility of the proposed desalination facility and the refinement of the proposed approach to construction.

## Lake Swanbank Fish Kill Investigation

When power station operators noted that fish, and particularly long-finned eels, were dying in large numbers in Lake Swanbank, **frc environmental** was commissioned to investigate. Through assessment of key ecosystem health indicators, the capture and investigation of morbid fish and the post-mortem examination of dead fish, **frc environmental** were able to confidently attribute the deaths to a bacterial infection associated with recent inflows.

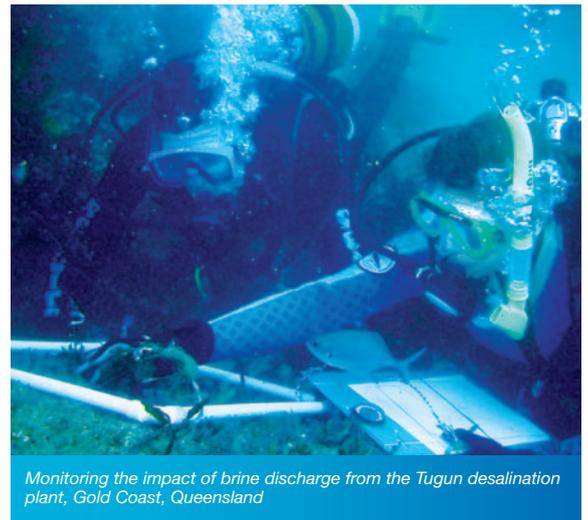
## Connors River Dam and Pipelines Baseline and EIS

**frc environmental** mobilised at short notice to conduct the pre-wet season baseline surveys in anticipation of the construction of the Connors River Dam; and subsequently developed the aquatic ecology section of the project's EIS. Our in-depth understanding of the aquatic and wetland ecosystems of the Fitzroy River basin, enabled us to rapidly identify key issues, notably habitat critical to the Fitzroy River turtle, and provide Sunwater with an objective assessment of likely impacts. Our understanding of current legislation and regulation supported our development of practical mitigation strategies.

“Water is precious. **frc environmental** offers the expertise and experience to ensure maximum yield with minimum environmental impact.”



The survey of fishes in large impoundments demands boat-mounted electrofishing - frc environmental own and operate multiple units



Monitoring the impact of brine discharge from the Tugun desalination plant, Gold Coast, Queensland

### industry experience

- Ports & Maritime Operations
- Mining, Oil & Gas
- Linear Infrastructure
- Power Generation & Distribution
- Waste Management
- Water Infrastructure
- Effluent Infrastructure
- Urban, Industrial & Agricultural Development
- Government
- International Development & Aid
- Fisheries & Aquaculture
- Wetland Construction & Rehabilitation
- Tourism
- Defence
- Forensic & Legal