



connell  
griffin

# Securing the Future of Australia's **Water Resources**

Water Capability Statement

# ConnellGriffin is passionate about the role we are playing to secure our scarce water resources.

“ We are Australia’s most trusted infrastructure advisory firm, providing project development, transaction, commercial and strategic services to a diverse range of water sector clients on their most critical and complex projects.

We live in the driest inhabited continent on the planet, making water one of our most precious resources. With the rapidly changing climate, it is our corporate responsibility to deploy our expertise to help secure the future of Australia’s water resources.

Severe droughts affects Australia about once every 18 years. However, climate change is expected to mean more frequent and prolonged droughts. This, coupled with our increasing population means alternative water sources are becoming increasingly critical.

ConnellGriffin currently provide strategic services in the water sector ranging from catchments, storage, transfer and treatment infrastructure. We deliver these services throughout the project life cycle from front end project development, right through to operations and asset management.

ConnellGriffin empowers our water sector clients to solve their most complex problems through the provision of pragmatic and practical advice. All with the objective securing the future of Australia’s water resources.

*Richard Martin | DIRECTOR*



# Opportunities and Challenges for the Water Sector



## ENVIRONMENTAL ADVERSITY

The water sector relies heavily on rainfall to replenish storages, streams and groundwater, and on healthy ecosystems to support a reliable water cycle. Higher temperatures increase the volume of water in storage lost through evapotranspiration. Extreme weather events, rising sea levels and increased coastal inundation, can also damage assets or disrupt wastewater treatment processes. The water sector will need to work closely with the research community to further understand these impacts and integrate this research into smart asset and planning solutions that minimise their impact.



## POPULATION GROWTH

Population projections indicate that Australia's five largest capital cities will need to accommodate approximately 10 million additional residents by 2050. This rapid urbanisation will put pressure on the urban water sector to provide sufficient water supply and wastewater services. The costs of augmenting water supply close to major cities present issues with managing water security efficiently. Government, communities and owner/operators will need to take an integrated approach to planning to eliminate potential disconnect between location of water and location of people.



## CIRCULAR ECONOMY

A circular economy is an economic model that aims to reduce waste and promote the reuse of resources. By implementing this model within the water sector, the following benefits can be realised: reduced excess water consumption, reduced energy consumption by minimising the need for water treatment and transportation, better monitoring and reporting on water quality, quantity, usage patterns and reuse, which can aid informed decision making.



## CAPITAL FINANCING

Infrastructure required to manage water is typically fixed and long-lived, raising the importance of getting investment decisions right for users, communities, utilities, investors and the economy. With so much of Australia's water and sewerage network built over the first three-quarters of the twentieth century, utilities will require an increasing level of investment to replace ageing assets. Timing is critical. Failure to renew these assets could attract significant financial and economic costs, but it is important to ensure users are not hit with unnecessary upfront costs. Transparent reporting on these assets will be critical to ensuring asset renewal processes are efficient, and so that Governments, utilities and regulators are accountable for their investment decisions.



## LONG-TERM ASSET MANAGEMENT

Many water, stormwater and wastewater assets in Australia are reaching the end of their lifecycle, are approaching their full capacity or are no longer suitable for modern scale and distribution requirements. This presents an opportunity to transform the way water and wastewater services are delivered – moving from a capture, use and dispose approach to an integrated water-cycle management where we use, recycle and reuse water resources. A fresh approach to long-term asset management is required to ensure that upgraded and new assets suit consumer requirements well into the future.



## CONTRACT MODELS

To support the rapid growth of this sector, we must create bespoke and contemporary contracts that reflect the unique challenges of the water sector. This includes collaborative contracts from both a risk share and behavioural perspective. Creating a contractual environment that enables overseas and new entrants to the market is critical so to create healthy competition and enable innovation. To achieve this, we can leverage experience from the transportation sector boom over the last decade and the current energy sector boom that is emerging.

# Our Services and Expertise

ConnellGriffin is a specialist Australian owned commercial advisory firm with extensive expertise and experience in the infrastructure sector. From project concept through to **procurement, delivery, operate** and **dispute** avoidance and resolution, ConnellGriffin provide advice across every sector and every stage of the project lifecycle.



Our team is committed to supporting our clients' projects by applying our experience and knowledge across a wide range of services and disciplines and working in partnership with our clients to design, create and implement the most effective solutions.

# Our Expertise in Practice



## MALABAR SYSTEM IMPROVEMENTS

The Malabar Wastewater System (the Malabar System) is the largest and one of the oldest wastewater systems in Sydney. It services over a third of the city's population. The Malabar System captures wastewater from both long-established neighbourhoods and more recently opened areas prioritised for future growth. The population it services is expected to increase by circa 1.1 million by 2056.

The consequence of this population growth has resulted in the need to increase the Malabar System by 43%. The scope of the project includes upgrades to several existing wastewater treatment facilities, new pipelines and pump stations.

ConnellGriffin has been engaged by Sydney Water to provide Delivery Strategy, Market Sounding, Transaction Management and Commercial Advisory services on this significant project.

**CLIENT:** SYDNEY WATER

**SERVICES PROVIDED BY CG:**

- Delivery Strategy and Market Sounding
- Transaction Management
- Commercial Advisory



## PARADISE DAM IMPROVEMENT PROJECT

The Paradise Dam Improvement Project (PDIP) originated from flood repair works carried out in 2013 and mid-2017. The Paradise Dam Essential Works, which commenced in April 2020, were a short-term risk reduction measure while the longer-term dam remediation plan was confirmed. The final ancillary activities for the Essential Works were completed in early-2022. In December 2021, the Queensland Government announced that Paradise Dam will be returned to its original height, following significant safety improvement works which necessitated an essential temporary reduction in the dam wall height. This decision followed a detailed options evaluation process undertaken as preparation for a detailed business case for the PDIP.

ConnellGriffin led the integrated Business Case Management Services (BCMS) team engaged to progress the PDIP to a Detailed Business Case.

**CLIENT:** SUNWATER / DRDMW

**SERVICES PROVIDED BY CG:**

- Business Case Development including Procurement Strategy



## PROSPECT WATER FILTRATION PLANT UPGRADE

Sydney Water's Prospect Water Treatment Plant upgrade involves the expansion of the capacity and treatment processes for the major water purification plant for Sydney. The plant is operated by a partnership called PWP who have also financed it under a Build, Own, Operate, Transfer (BOOT) structure dating from the 1990s. Thus, current operations are in place under existing agreements and the complexity of the project lies around renegotiating with the incumbent in a brown field situation where agreements already exist. The negotiations cover funding of the upgrade, recovery under the regulated price regime, varying of commercial terms, compliance with Sydney Water and NSW investment policy requirements, and the technical requirements of the procurement and subsequent operations. ConnellGriffin were engaged as Procurement Advisory and Stratists to assist with the transition.

**CLIENT:** SYDNEY WATER

**SERVICES PROVIDED BY CG:**

- Delivery Strategy
- Financial Advisory (incl. contract negotiation)
- Procurement Advisory



## NORTH WEST TREATMENT HUB

The North West Treatment Hub project is an initiative to respond to population growth and development in the north western region of Sydney. Sydney Water operates three treatment plants in the region at Castle Hill, Rouse Hill and Riverstone, all of which require upgrades in order to service growth and resolve current non-compliant overflow and odour issues. The proximity of the Rouse Hill WRP, Castle Hill WRP and Riverstone WWTP, the anticipated timing of the requirement amplifications and uncertainty of growth projections has prompted the development of a strategy that considers regionally integrating servicing opportunities.

ConnellGriffin are supporting Sydney Water in the procurement of the delivery contractor using an innovative alliance commercial model.

**CLIENT:** SYDNEY WATER

**SERVICES PROVIDED BY CG:**

- Commercial Advisory



## ROOKWOOD WEIR PROJECT

The \$570m Rookwood Weir project will capture valuable water in the lower Fitzroy River for use across the region. Once complete, it will provide new economic and employment opportunities for the agricultural industry and the community of Central Queensland. The Queensland and Australian Governments have contributed \$183.6 million each to the total spend, and Sunwater is funding the remainder.

ConnellGriffin were commissioned to provide specialised commercial advisory services on the project.

**CLIENT:** CONFIDENTIAL

**SERVICES PROVIDED BY CG:**

- Specialist Advisory Services



## COLIBAN REGION WATER CORPORATION - PROGRAM MANAGEMENT

Coliban Water provides water and wastewater services to 130,000 retail urban and rural customers across 16,500 Km<sup>2</sup> of Central and Northern Victoria. This includes, water harvesting and storage, urban water supply including water conservation and demand forecasting, wastewater collection, reclamation, and rural water supply.

Coliban Water wanted to ensure its organisational investment priorities, services and processes continued to address changing customer needs and expectations. It identified the need to improve organisational decision-making regarding reporting, planning, forecasting and resourcing of its project portfolio. ConnellGriffin was engaged to help Coliban Water update its Portfolio Management Office (PMO) processes as a platform to implement further changes in the future as part of its PMO development roadmap.

**CLIENT:** COLIBAN REGION WATER CORP.

**SERVICES PROVIDED BY CG:**

- Problem Definition and Benefit Management Plan



## CRESSBROOK DAM SAFETY UPGRADE

Cressbrook Dams is a key supplier of drinking water for Toowoomba and surrounding towns. The safety upgrades will meet the Dam Safety Condition Schedule issued by the Department of Regional Development, Manufacturing and Water. This schedule required Council, as the owner of the dams, to undertake appropriate works to meet the requirements of the Queensland Dam Safety Management Guidelines 2020. The project aims to deliver the upgrades without impacting the security of the drinking water supply.

Due to the significant cost of the project and the complex nature of the works for Cressbrook Dam, our advisors have been engaged to support the client in the delivery of project by providing owner's engineer and delivery support services.

**CLIENT:** TOOWOOMBA COUNCIL / QUEENSLAND GOVERNMENT

**SERVICES PROVIDED BY CG:**

- Owners Engineer
- Delivery Advisory



## PARTNERING 4 SUCCESS PROGRAM

Sydney Water developed and implemented the Partnering for Success (P4S) delivery model that aims to simplify the supply chain and deliver practice customer solutions for Sydney Water's capital work projects.

In July 2020, Sydney Water entered a 10-year partnership with three Regional Delivery Consortia (RDCs) across the North, South and West regions to deliver water solutions and infrastructures. The P4S delivery program is being let under the NEC4 suite of contracts.

ConnellGriffin is currently engaged to provide commercial management and advisory services.

**CLIENT:** SYDNEY WATER

**SERVICES PROVIDED BY CG:**

- Commercial Management and Advisory Services

# Identifying an optimal delivery strategy

How clients utilise the relatively constrained market is key to them achieving the objectives of their project. ConnellGriffin's practitioners are at the forefront of designing and implementing delivery and procurement strategies across Australia in the water sector.

## WHAT ARE THE CHALLENGES OF IDENTIFYING AN OPTIMAL DELIVERY STRATEGY?

An optimal delivery strategy selects the most appropriate approach to delivering major infrastructure. It can be applicable for either a single project or to a program of works. However, in both cases, clients must adopt a consistent and holistic approach relative to a project's scope, size, complexity and level of risk - all to ensure the market can appropriately respond.

The challenges ConnellGriffin support clients to overcome in designing a delivery strategy are:

### DESIGN STRATEGY

An often overlooked element of any delivery strategy is the client's 'design strategy'.

The design strategy **should be identified first** in any delivery strategy due to its influence on other elements of the strategy, including approach to packaging and contract model selection.

### CONTRACT STRATEGY

Each package that has been identified must then have an appropriate contract model selected.

Whilst there are several 'traditional' contract models that have been deployed in Australia over recent decades, **many 'contemporary' models** now exist that are used in various jurisdictions and sectors.

### PACKAGING STRATEGY

The packaging strategy explores the **benefits of splitting a project** in multiple contract packages versus keeping the project as a single contract package. An optimal packaging strategy provides more optimal outcomes by considering scope, interfaces, any specialist construction and the markets ability to respond.

### PROCUREMENT STRATEGY

'Delivery Strategy' and 'Procurement Strategy' are terms often confused in the industry. The **procurement strategy identifies how** a particular package/contract will be procured (e.g. EOI then RFT, ECI, sole source, augment existing contract, etc.), whilst the delivery strategy identifies all the strategies described above, including the procurement strategy.

With ConnellGriffin's support to optimise the above individual elements, our clients have the highest likelihood of achieving their project objectives.

# Meet the ConnellGriffin Team

Our diverse team are qualified professionals who have delivered complex infrastructure projects as engineers, advisors, contractors, lawyers and commercial managers. This combination of technical knowledge and commercial expertise enables our team to provide best practice advisory services and reliable commercial advice, which is founded on practical experience.



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