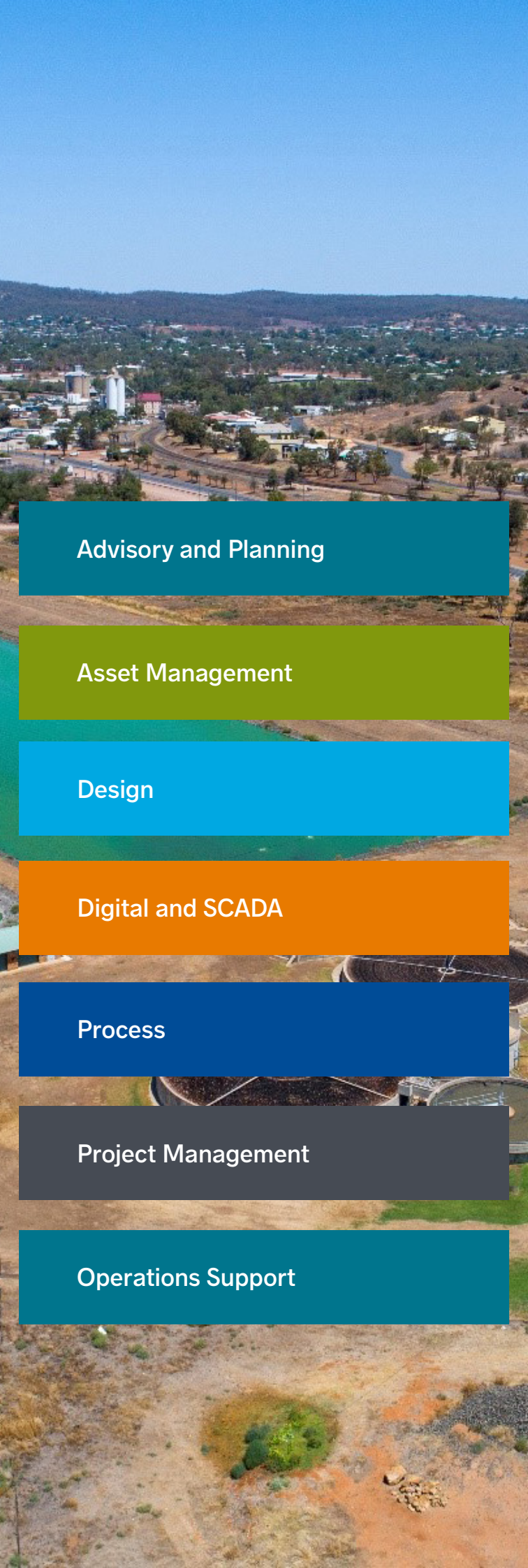




**hunterh<sub>2</sub>O**

Annual Report

2020



Advisory and Planning

Asset Management

Design

Digital and SCADA

Process

Project Management

Operations Support

**Our Vision:**  
*Water Together*

*Together we create the right water solutions to improve lives and support sustainable and healthy communities.*



Table  
of  
contents

04	Chairman’s Message
06	Managing Director’s Message
08	Company Vision & Purpose
10	Sustainability
12	Project Highlights



27	Safety
28	Corporate Governance





# Chairman's Message

Dear Shareholders

I'm pleased to report on a year of outstanding achievement despite challenges of drought, bushfires, floods, pandemic, and heightened economic uncertainty. It is worth reflecting on the reasons for how well your company did in these circumstances and in particular, success in adjusting to the COVID-19 environment.

First, we started the year with a Strategic Plan that provided a framework to cope with uncertainty and management of risk. As a more agile organisation we were able to react swiftly, adapting operations to an avalanche of change, not the least, in the final quarter of working from home, this made possible by a wise decision in 2019 to upgrade equipment and technology.

Second, at all times our customers were front of mind. We kept close to our customers and met their needs in difficult conditions. During the drought we worked overtime to provide solutions for many affected communities. When COVID-19 struck we were organised and innovative, able to focus on customer response without business interruption or delay.

Third, Hunter H<sub>2</sub>O has built a high quality client portfolio, is financially conservative and in this year under review, generated steady cash flow sufficient to enable retirement of all Redeemable Preference Shares, opening the door to payment of franked dividends to shareholders in October 2020 and beyond.

But lastly, and of most importance, Hunter H<sub>2</sub>O has extraordinarily capable people. Without you and all your colleagues, your enthusiasm, work ethic, skills, and competence we would have struggled to deliver these financial results. Once again, I note and congratulate all parties on the excellent safety record, a real source of organisational pride.

To fellow Directors, my thanks for your support and guidance; to Peter Dennis and the Executive Leadership Team, my thanks and appreciation for impressive crisis management, team cohesion and well laid plans for the longer term. Well done indeed.

With a strong order book, developing opportunities here and in the Pacific, the year ahead shows promise for further growth despite pandemic uncertainties.



Brian Gatfield  
Chairman





# Managing Director's Message

## This financial year has been a rewarding and successful one for Hunter H<sub>2</sub>O despite substantial business headwinds.

Our Board, Executives and Leadership Team have continued to successfully execute our 2025 Strategic Plan. We have seen growth in profitability, we are more customer connected, have expanded our client base, and developed a healthy pipeline of work and long-term opportunities. We have gained clarity on our market edge and have adapted into an agile organisation - able to respond to the needs of our customers. We have extended vital assistance to regional clients through recent catastrophic drought, bushfires and subsequent flooding events which epitomises our character, purpose and values.

I am proud of the team's resilience in adapting to the challenges presented by COVID-19 and want to thank everyone for their perseverance through a difficult time and particularly for their support of one another. Our improved team connectedness and ability to rapidly move to a virtual working environment is a key factor in our success.

We believe to be successful, you need to put culture first, to strive for an environment that is inclusive, promotes diversity and one we are all proud to be part of. Most pleasing this year is our continued improvement in all aspects of our culture. This improvement strongly underpins our future success and I am proud of the collaborative way people are engaging and sharing knowledge across the business. A culture-first company focuses first on employees as the driver of that great performance. This approach aims to strengthen our unique service offering, encouraging the search for innovative solutions to better understand our clients' needs and challenges.

A commitment to Zero Harm is embedded in our culture. Our continued safety performance is another positive for 2019-20. While we have an ongoing focus on physical safety, I am pleased we have adjusted our focus to include wellbeing and supporting positive mental health. While there are always areas for more development in this complex space, it has provided a solid foundation to support people through a uniquely challenging year.

*"If you take care of the culture, then the customer experience and profits will take care of themselves."*

Hunter H<sub>2</sub>O continues to recognise the importance of investing meaningful support into developing Pacific communities. Our people play a vital role in supporting the intent of the Goals set by the United Nations for Clean Water and Sanitation (SDG6). In working with our Pacific neighbours, we see first-hand the value we can foster through close partnerships that show genuine investment in building the local capacity of our neighbours. Our critical connections with the Australian Water Partnership and the Pacific Water and Wastewater Association directly support Young Water Professional development in Pacific nations. This is an important investment in a more sustainable, diverse and equitable future.

Our diverse network of staff continues to inspire me through their unique strengths, insights and how they apply these to develop smarter more practical water solutions for our customers. Through blending our technical capability and our personal approach, we can forge strong, trusted relationships with our customers and stakeholders. We showcase a number of these smart, customised water solutions in this annual report.

We really appreciate the strong team we are building outside of the Hunter. With new offices in Tamworth and Suva, as well as our existing offices in Adelaide and Brisbane, it enables us to be increasingly connected with our clients.

Well done all for your commitment towards building a great culture. Your resilience and agility in responding to the challenges of 2020 is inspiring.

I am incredibly excited and optimistic about our future. A future where:

- We continue to collaborate to make a difference in the communities in which we work
- Our people can grow and develop to achieve their aspirations
- Our work contributes to more sustainable use of water for the longevity and liveability of our communities.

Thank you to the Hunter H<sub>2</sub>O team for tremendous commitment to the improvement of the organisation and supporting each other. I also appreciate the support of our Chair and the Board in providing effective governance and oversight of our company strategy and risk management, and most vitally, backing our team at Hunter H<sub>2</sub>O.



Peter Dennis  
Managing Director





# Company Vision & Purpose

We get excited about your toughest water and engineering challenges

**100% Australian and employee-owned**  
**Water focused, internationally skilled and competitive.**

**Our operations heritage fosters the trust and practical insight needed to deliver the right solution *the first time.***

Hunter H<sub>2</sub>O is one of the largest Australian specialist consulting firms in the water industry. We operate across a broad range of water industry project types within the following diverse set of clients and geographies: Regional Water Utilities, Metropolitan Water Authorities, International, Private Sector Clients and Government Agencies.

We employ over 100 water industry specialists and forecast continual growth through building a strong presence around our major city offices in Brisbane, Newcastle, Adelaide and our new office in Tamworth, NSW.

- We work alongside our clients to integrate:
- Process expertise including both Water and Wastewater
  - Design services (including civil, mechanical, electrical, hydraulic and chemical/process engineering)
  - Planning (Australia and international)
  - Digital SCADA & automation integration services
  - Project management and operations support
  - Asset management
  - Strategic advisory expertise.

Our third-party certified health and safety, environment and quality management systems define the framework for consistent quality and safe operations during the successful delivery of projects.

**Our vision**  
**Water Together**

**Our purpose**  
Together we  
create the right  
water solutions to  
improve lives and  
support sustainable  
& healthy  
communities

**Our values**  
I care deeply  
I am inclusive  
I do what's right



## Our ways of working

**We work as one team**  
We connect the right people for the job  
We collaborate to create the right solutions  
We encourage and recognise excellence and we celebrate achievements.

**We are customer connected**  
We put the customer “front of mind” in everything we do  
We seek solutions that drive value for our customers and the communities that they serve  
We deliver services that are timely, efficient and meet the needs of the customer.

**We develop our people so that they can be the best they can**  
We support mentoring and development programs  
We provide constructive feedback  
We provide exposure to the right work experiences.

**We empower our people**  
We dedicate time for creativity and problem solving  
We have courage to try things out  
We value solutions and innovations that make our communities more sustainable.

**We are always improving**  
We have a commercial mindset in how we work  
We actively engage our customers to seek feedback on our service delivery and identify opportunities for improvement  
We dedicate time to reflect and learn from our experiences.

Our vision of “Water Together” has several meanings. Water is vital for the many communities we serve.

Our vision reflects:

- The importance we place on collaboration, diversity and teamwork in creating the right innovative solutions that drive value
- It also reflects our strong desire to partner with our customers, constructors, universities and other professionals in ensuring healthy and sustainable communities.

Our purpose epitomises who we are at Hunter H<sub>2</sub>O. Our work in regional areas and in the Pacific is really about helping communities to ensure they have reliable and safe drinking water, as well as sustainable management of wastewater. It also captures our desire to deliver smart and innovative water solutions for our customers.





# Sustainability

Hunter H<sub>2</sub>O's Sustainability Policy is supported by our four strategic pillars: Being Customer Connected; Our Team; Our Market Edge; and Sustainable and Agile. These pillars map out our transition to a customer connected, more agile and sustainable organisation. For our team at Hunter H<sub>2</sub>O, contributing to a sustainable future for everyone is core to who we are and what we want to achieve.

We believe that future generations should enjoy environmental, social and economic conditions that are equal to or better than those enjoyed by the present generation. Our Strategy and business operations are guided by the following principles:

- We recognise that climate change is a significant challenge to achieving sustainable economic, social and environmental development in the water industry and this belief is reflected in our core business activities
- We recognise the importance of the United Nations' Sustainable Development Goals and strive to meet the intent in whatever way we can. Through our strategy execution Hunter H<sub>2</sub>O is committed to continually reviewing and improving sustainability practices
- Our business operations are guided by the 10 Principles of the United Nations' Global Compact. We recognise our strong partnership with our Pacific clients and other agencies is founded on trust and an implicit respect for these principles.

These principles require that businesses should:

- Support and respect the protection of internationally proclaimed human rights
- Make sure they are not complicit in human rights abuse
- Uphold the freedom of association and the effective recognition of the right to collective bargaining
- Uphold the elimination of all forms of forced and compulsory labour
- Support and respect the protection of internationally proclaimed human rights
- Uphold the elimination of discrimination in respect of employment and occupation
- Support a precautionary approach to environmental challenges
- Undertake initiatives to promote greater environmental responsibility
- Encourage the development and diffusion of environmentally friendly technologies
- Work against corruption in all its forms, including extortion and bribery.

We strongly support the objectives of the Modern Slavery Bill 2018 (Commonwealth) and Modern Slavery Act 2018 (NSW).

The following framework summarises the key focus areas in how we manage sustainability at Hunter H<sub>2</sub>O, and how these align with the United Nations' Sustainable Development Goals. Sustainability is intrinsically embedded in our vision and purpose.







## Project Highlights

### Queanbeyan-Palerang Regional Council Queanbeyan Sewage Treatment Plant Upgrade

The Queanbeyan STP Upgrade will replace Queanbeyan's existing STP with a modern treatment facility that protects public health and the environment for future generations.

The new 75,000 EP Queanbeyan STP provides for the continued growth and development of Queanbeyan and is designed to meet stringent environmental objectives for effluent discharge into the Molonglo River that flows into Canberra's Lake Burley Griffin. The design of the new facility has been developed in close consultation with QPRC, with a strong focus on reliable operation, sustainability and whole of life value to QPRC.

The Queanbeyan STP Upgrade uses an advanced treatment process that includes a continuous flow oxidation ditch and clarifiers providing biological nutrient removal, tertiary filtration and UV disinfection. The plant is configured with the ability to operate in a solids-contact mode to provide enhanced treatment during wet weather flows. The design is being developed with an innovative low energy mixing system.

Queanbeyan STP is being developed with sustainability as a key focus and Hunter H<sub>2</sub>O is assisting QPRC in meeting an ISCA rating for the project.

As the design consultant, Hunter H<sub>2</sub>O is supporting QPRC in delivery of the project through a scope of work that includes:

- Site investigations for the design and EIS
- Concept design and business case
- Coordination of the preparation of an Environmental Impact Statement
- Detailed design and tender documentation
- Tendering and procurement support
- Construction and commissioning support
- Leading negotiations with key regulators in three different jurisdictions (the plant sits on the border of NSW and ACT with both State and Territory governments involved, in addition to the Federal government).

The project is currently in concept design. All project deliverables and plant commissioning are expected by January 2024.



### Seqwater Plant Operational Data Management System: Design, Delivery & Implementation

Hunter H<sub>2</sub>O in conjunction with Lutra secured the delivery of the Plant Operational Data Management System (PODMS) for Seqwater's 37 Water Treatment Plant facilities.

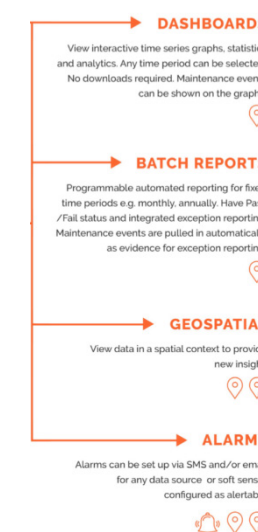
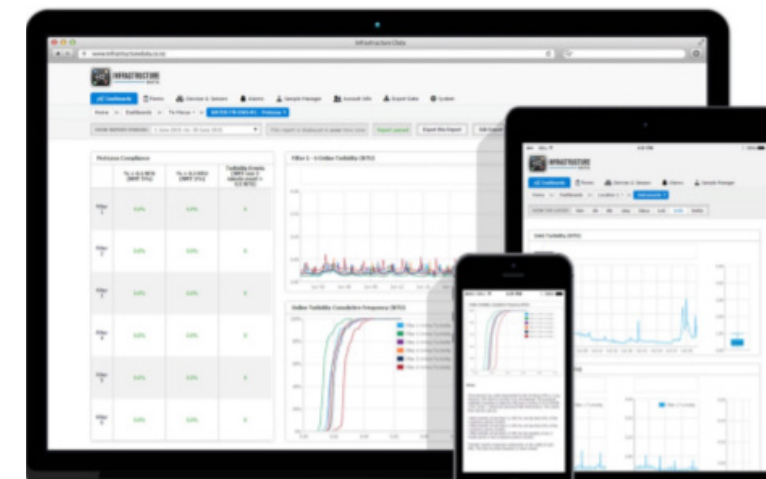
The project uses an innovative SaaS product, 'Infrastructure Data' (commonly referred to as 'ID'), to collect, store, analyse, alarm, schedule and generate operational reports and tasks for Seqwater's management and operations staff.

The PODMS will replace the existing paper and spreadsheet data collection methods currently used at Seqwater's plants, assisting in standardisation of data collection and report formats. In addition, the product enhances field data collection through the use of a user friendly mobile data application which not only allows free form and pre-defined data input, but also collection of site images with associated location information, regardless of phone reception.

The engagement has an 18-month implementation period, followed by a three-year engagement with two one-year options.

Hunter H<sub>2</sub>O has completed the first tranche of works, implementing the system at six critical sites, including Mt Crosby and North Pine. This will be followed by rollout to the remaining Southern, Northern and Central plants in 2020 and early 2021.

The engagement requires a significant level of interaction with Seqwater's operations and management personnel to assist with change management, adoption of the system by all users and to ensure the system meets Seqwater's requirements.



“Seqwater is engaged at all levels throughout the project, from inception workshops which provide users with insight into the use and operation of the software, to user requirements workshops, and user acceptance testing, implementation and training.”





## Project Highlights

### Water Authority of Fiji Navakai Wastewater Treatment Plant Upgrade

Water infrastructure has become one of the key drivers to support economic development and growth in Fiji.

Water Authority of Fiji is making a significant investment in developing their infrastructure.

Navakai WWTP serves the growing city of Nadi and tourist areas of Denarau on the western coast of Liti Levu. The area has experienced high population growth and the treatment capacity of the original WWTP has been exceeded. A number of assets at the plant are also in poor condition due to age and storm damage and require replacement or repair.

In 2016, WAF engaged Hunter H<sub>2</sub>O to assess the condition and treatment capacity of Navakai WWTP and identify a cost effective program of work for an upgrade to provide additional treatment capacity.

Following completion of the planning project, in 2017 WAF engaged Hunter H<sub>2</sub>O to prepare the detailed design and tender documentation for the upgrade and associated outfall.

The project included:

- Sampling program and sewage characterisation
- Treatment capacity assessment
- Mechanical and structural condition assessment of existing assets

- Options study to identify the preferred treatment plant upgrade
- Procurement plan for project delivery and supporting business case
- Concept design and Safety in Design (SiD) reviews
- Assistance with consultation and negotiation of treatment requirements with Fiji's Ministry of Environment
- Detailed design and documentation for the upgrade, including construction of new inlet works, IDEA reactor, biosolids dewatering and effluent disinfection
- Training plan and training of the WAF team to build their skills and capacity in operation and maintenance of the WWTP and in project management.

Our work included optimisation of the existing plant, as well as development and documentation of the detailed design. During the project, WAF's management identified that a key requirement was further training and capacity building of its team. Our team responded by incorporating targeted training and workshops into our project methodology.

This project is a good example of the benefits that we are able to provide our customers through our depth of experience and range of expertise. Our experience in wastewater treatment enabled us to identify the right upgrade solution for WAF, balancing the simplicity of appropriate treatment technology with modern communication and control, to enable operation to be remotely monitored from the operations centre in Suva.

Our broad range of experts supported WAF with its broader project requirements, including procurement management and capacity building of its team in wastewater treatment and project management.

### Mid Coast Council Nabiac Emergency Desalination Plant

The entire Mid-Coast Region was expected to completely run out of water within a 90-day duration commencing November 2019 as a result of one of the worst droughts in 100 years.



MidCoast Council (MCC) directly engaged Hunter H<sub>2</sub>O to design, procure and construction manage a 5.5 ML/d containerised Reverse Osmosis (RO) and Micro Filtration (MF) temporary desalination plant at the site of its existing water treatment plant in Nabiac, NSW.

In early November 2019, Hunter H<sub>2</sub>O was engaged to draft a project plan to assess and document the project's feasibility. A highly detailed, multi-disciplinary project plan was prepared and presented to MCC within 22 days. Hunter H<sub>2</sub>O was then engaged to:

- Develop tender and contract documentation including technical specifications
- Assist MCC with obtaining planning approvals
- Engage subconsultants to undertake preliminary service locations, geotechnical and ecological investigations
- Place early orders for long lead items, including pumps, desalination units, steel and poly fittings
- Undertake draft and preliminary design of all plant civil, process, electrical and mechanical aspects
- Liaise with MCC's stakeholders
- Conduct tender evaluation processes
- Finalise contract award.

The construction contract was awarded to the contractor in late December 2019, with construction commencing in early January 2020. During the construction phase, Hunter H<sub>2</sub>O continued to undertake the following detailed design and construction management tasks:

- Civil design
- Process design
- Mechanical design
- Electrical design
- Management of equipment procurement contracts
- Management of subconsultants
- Full time construction surveillance and management of the contractor as Principal's Authorised Person
- Management of variations, RFIs and EoTs
- Regular contract and design review meetings

Welcome but unexpected heavy rain in late January 2020 resulted in the project being terminated by MCC.

Hunter H<sub>2</sub>O continued to support MCC by negotiating out of procurement contracts with equipment suppliers and the construction contract with the contractor, and undertaking project closure tasks to ensure the project reached practical completion, which it did in March 2020.



## Project Highlights





## Project Highlights

### Department of Foreign Affairs and Trade Port Moresby Water and Wastewater Master Plan

Hunter H<sub>2</sub>O was engaged to develop a 20-year Master Plan (including 5-year Action Plan), for the ongoing sustainable development of EDA RANU's water and wastewater services throughout Port Moresby to at least 2040.

The preparation of Master Plans for Port Moresby's water supply system and sewerage system is a critical step in ensuring sufficient clean water and sanitation services are continuously available to the people of Port Moresby, in both the short term and the longer term. As there are no recent Master Plans, a significant amount of work needs to be undertaken to prepare comprehensive Master Plans that cover water supply (including bulk water supply, water treatment, trunk distribution and trunk storage) and sewerage (including trunk collection, sewage treatment and effluent discharge).

This project has two main aims:

- Prepare a 20-year Master Plan (2020-2040) to allow EDA RANU to meet any projected demands for drinking water supply and wastewater (sewage) management services across Port Moresby by creating a staged program of system augmentations / capital works and operational improvements
- Prepare a 5-year Action Plan (2020-2025) as the first stage of implementing the Master Plan.



The Master Plan will be a cornerstone document for aligning current and future demand management of water and wastewater services in consideration of sustainability principles such as economic, environmental, social and cultural. The Master Plan will provide a roadmap to allow water demands to be met and wastewater service to be created.

The key components of the Master Plan include an overview of:

- Description of the assets and service
- Levels of service
- Demand and planning for the future
- Lifecycle management
- Risk management
- Recommended works in priority listing
- Key issues and risks
- Challenges, opportunities and priorities
- Responsibilities
- Costs including whole of life costs
- Timing



### Asian Development Bank Papua New Guinea Water and Wastewater Advisory

## Project Highlights



### Access to improved drinking water supplies (40%) and sanitation (19%) in Papua New Guinea is low and did not meet the United Nation's 2015 Millennium Development Goals.

PNG is also not on track to meet the United Nations' 2030 Sustainable Development Goals, nor its own targets of 70% access to improved water supply and sanitation by 2030. Provincial and district towns are generally poorly serviced.

Water PNG has responsibility for providing water and wastewater services to towns and cities outside of Port Moresby. Water PNG currently operates around 20 water supply systems and seven sewerage systems across Papua New Guinea.

However, another 75 provincial and district towns are either unserved or have rudimentary water supplies that are not operated by Water PNG. Consequently, the Papua New Guinean Government has given Water PNG a mandate to implement suitably improved services to each of these towns.

The key objectives of this Asian Development Bank technical assistance project were:

- Assist the Department of National Planning and Monitoring (DNPM) and Water PNG to strengthen management of the water and sanitation sector (including the provision of a Water Safety Plan (WSP) to be used as a template for future plans)
- Review past and present capacity development activities, including activities undertaken by other development partners, and provide recommendations for ongoing capacity development

- Improve the readiness of the Papua New Guinean Government to implement projects aimed at improving water and sanitation access in district towns, with a specific focus on Vanimo, Kerema and Mendi.

The project was undertaken in two phases.

Phase 1 involved:

- Preparation of a WSP in accordance with WHO Guidelines for Drinking-Water Quality (2017) and WHO Water Safety Plan Manual (2009)
- Review institutional capacity of key agencies and recommend institutional strengthening opportunities
- Preparation of feasibility studies for water supply and sanitation schemes in three selected provincial towns - Vanimo, Kerema and Mendi. While multiple field visits and site investigations were undertaken in Vanimo and Kerema, field visits to Mendi were not possible due to safety and security related concerns.

After completion of the final draft feasibility studies, ADB requested additional works be undertaken (Phase 2), including:

- Field surveys, groundwater investigations and water quality testing to inform updated recommendations for the proposed water supply and sewerage systems in the Vanimo and Kerema feasibility studies
- Preparation of due diligence reports for proposed water and sanitation projects in Vanimo and Kerema, including financial, economic, social safeguards, environmental safeguards, gender, stakeholder consultation and participation
- Independent review of designs for a proposed water supply scheme servicing Tete Settlement in Port Moresby.





## Project Highlights

### Central Coast Council Mardi Water Treatment Plant Stage 3 Upgrade

Mardi WTP is one of Central Coast Council's two major water treatment plants used to supply drinking water to over 340,000 residents on the Central Coast and Lower Hunter regions.

Hunter H<sub>2</sub>O is assisting Central Coast Council (CCC) as their design consultant to deliver an important upgrade to secure drinking water for the Central Coast.

As part of the long-term water supply strategy for the Central Coast, Mardi WTP will be increasingly used to supply drinking water to customers in Wyong and Gosford. Mardi WTP is a direct filtration plant constructed in 1984 and augmented in 1992. While the plant has a nominal production capacity of 160 ML/d, the production rate is often reduced due to limitations of the plant's treatment capability.

The Mardi WTP Upgrade has been developed to improve the treatment capability and address key water supply risks while delivering value for money for the community. The project seeks to:

- Provide treatment for the wider range of raw water quality conditions now present in Mardi Dam
- Install a clarification stage capable of removing algae which is an emerging risk with warmer climate conditions
- Provide treated drinking water that has lower dissolved organic carbon to reduce the chlorine demand in the distribution network and reduce the risk of THM formation
- Deliver the upgrade in a way that provides flexibility for the site to adapt to future changes.

Hunter H<sub>2</sub>O has supported CCC in developing the Mardi WTP upgrade since 2014 with technical advice including preparation of a treatment options assessment, concept design and procurement plan for the works. The upgrade is to be delivered using a D&C project delivery. Hunter H<sub>2</sub>O as CCC's designer is preparing a reference design for the upgrade to assist in confirming the project scope, feasibility and costing, to reduce risk and to support stakeholder input from CCC's operational staff. Our team will continue to support CCC as its technical advisors throughout the D&C project delivery process.

The key components of the upgrade are:

- A DAF clarifier
- New and upgraded chemical facilities
- New and upgraded mechanical equipment
- Civil works including roadwork, parking, chemical storage bunds, clear water tank baffles, refurbishment of structures and new sludge lagoon outlet structure.

In engaging Hunter H<sub>2</sub>O, CCC has benefited from our specialist technical advice, the continuity provided by our team's continued involvement and our understanding of CCC's requirements. Our ongoing role in project delivery includes assistance with the project procurement and design reviews leading to construction and commissioning support.



### SA Water Happy Valley Water Treatment Plant Sludge Plant Upgrade

Happy Valley WTP is located 15 km South of Adelaide CBD and can provide up to 600 ML/d of Potable Water for customers across the Metropolitan area. The plant was commissioned in 1989 and the sludge handling plant has seen limited capital investment since that time.

The original plant consisted of two gravity thickeners and two plate presses. The plant was originally manned 24/7 to allow for monitoring of the press discharge cycle. In 2000, a single centrifuge was added to allow the 24/7 shift operation to be reduced to normal working day attendance. The centrifuge provides approximately 50% of the total plant capacity. Whilst the centrifuge originally performed well, there have been ongoing issues with the reliability of the centrifuge, leading to long overhaul down times over the last few years. During the overhauls, the presses need to dewater more sludge. There have been a number of Health & Safety issues with the plate presses in relation to the need for manual intervention during the cake discharge cycle. This effectively limits the capacity of the presses and means that, during a centrifuge overhaul, the sludge plant capacity is reduced. The reduction in the sludge plant capacity in turn reduces the overall capacity of the water treatment plant. If demand exceeds the reduced capacity then water needs to be transferred around the Adelaide metro supply system from the other plants or the Adelaide Desalination Plant which increases operational costs.

SA Water engaged Hunter H<sub>2</sub>O and panel partner WSP in 2018, to undertake a technical investigation of the sludge handling plant and prepare a business case for a major capital upgrade to be included in the 2020-2024 Regulatory Business Plan.



## Project Highlights



The project included a process capacity assessment, an asset mechanical performance assessment and a condition inspection to understand options for retention of the current plant. In addition, options were developed for short-term solutions and future upgrade of the plant. Following a TOTEX-based options comparison process, a staged plan of interim measures and medium-term plant upgrade was identified as the preferred option. This was included in the Regulatory Business Plan submission and was endorsed by the economic regulator.

In 2019, SA Water engaged Hunter H<sub>2</sub>O and panel partner WSP to complete a technology options selection and then concept design. Our team re-affirmed the process design basis and then undertook a process technology review. Several options were considered, including centrifuges, plate presses, screw presses, belt presses and vacuum belt technology. After a TOTEX comparison, a multi-criteria analysis was used to identify centrifuge as the preferred approach. Our team developed a concept design and technical specification for the plant upgrade based on the preferred technology of centrifuge.

SA Water appointed the John Holland Guidara O'Connor Joint Venture as the Major Framework Partner for the Water South package in 2020, including projects at Happy Valley. The JV engaged WSP and Hunter H<sub>2</sub>O to undertake the detailed design for the delivery phase of the project. This element is ongoing, but has included detailed process design, process equipment sizing and development of the control philosophy. Early works also involved investigating value management opportunities that were identified during the concept design. The plant should be commissioned late in 2021.







## Project Highlights

NT Power and Water Corporation is responsible for the extraction, treatment and supply of drinking water to 72 remote communities across the Northern Territory.

In accordance with the Australian Drinking Water Guidelines (ADWG), NT Power and Water Corporation (PWC) has developed a risk based Drinking Water Quality Management System (DWQMS), including site specific Water Safety Plans for each community.

As part of the development of PWC's DWQMS, a desktop Water Safety Assessment was carried out for each community using a GIS tool. This returned a Health Based Target (HBT) assessment for each community which provided an indicative assessment of pathogen risks to the water supply.

This tool has provided a conservative assessment of risks, and Water Safety Assessments were required to ground truth the assigned HBT category and, where appropriate, re-evaluate the priority to ensure appropriate mitigation measures are implemented.

Hunter H<sub>2</sub>O was engaged to undertake these Water Safety Assessments, including site inspections and sanitary surveys, for 19 remote communities throughout the Northern Territory. Working closely with PWC in the field and in developing the reports, the Water Safety Assessments have identified opportunities for improvements and allowed PWC to focus their efforts on areas of elevated risk to improve the health of the community.

## NT Power and Water Corporation Remote Community Water Safety Assessments



## Hunter Water Corporation Hunter River Estuary Master Plan

Hunter Water operates five wastewater treatment plants (WWTWs) which are licensed to discharge into the Hunter River Estuary (HRE) or its tributaries (Kurri Kurri, Farley, Morpeth, Raymond Terrace and Shortland WWTWs). Hunter Water predicted an estimated capital investment of >\$300 million dollars would be required over the next 30 years to meet the projected increase in population and sewage load at those plants.

Hunter H<sub>2</sub>O has been engaged by Hunter Water to develop a long-term strategic master plan for the management of effluent discharges in the HRE catchment. To inform this work, Hunter Water previously invested in the development of a catchment water quality model.

Our team understood that successful delivery of this project would require careful thinking beyond just the upgrading of assets to meet regulatory requirements. Based on this understanding, Hunter H<sub>2</sub>O integrated an effects-based approach (EBA) into the project.

The EBA approach has evolved over the last decade to become international best practice. It is believed that incorporating EBA throughout the project is the best way to enable the development of a strategic, adaptive and sufficiently flexible masterplan that can provide near and long-term resilience in delivering agreed community waterway outcomes.

This approach is in contrast to the traditional wastewater treatment master plan approach that is developed solely on the basis of an isolated view of prescriptive end of pipe water quality constraints/limits, which are often not considered within the wider context of targeted waterway outcomes and the relative effects of all sources on the achievement of those outcomes.

## Project Highlights



To date we have undertaken the following in the development of the wastewater masterplan:

- Development of a project roadmap incorporating project objectives and ensuring each of Hunter Water's key aspects of the project would be met by the proposed methodology
- Development of a stakeholder engagement plan and stakeholder implementation plan to identify key community and regulatory stakeholders, analyse existing stakeholder information, establish gaps and understand stakeholder values, and develop a stakeholder engagement strategy to support and enable the project
- Assisting with the submission of Hunter Water's Pollution Reduction Program report to the EPA, which included a summary of early work undertaken for the project
- Collaboration with Hunter Water to determine a set of long-term strategic objectives for the project based on international best practice, and future trends and opportunities
- Review of Hunter Water's information (including the WWTWs' capability, constraints, performance, and current infrastructure upgrade pathway) to develop a holistic understanding of the current system in order to develop the problem definition
- Development of a draft decision-making approach and framework based on economic principles and EBA
- Generation, development and assessment of a range of potential strategy options. Options under consideration include major treatment upgrades, wastewater system reconfigurations, effluent discharge relocation, inflow/infiltration reduction, recycled water opportunities and catchment offsets.





## Project Highlights

### Hunter Water Corporation Hunter Water to Singleton Potable Interconnection

The Hunter Water to Singleton Potable Interconnection will assist with improving drought security, promoting economic growth and better protecting environmental assets across the Greater Hunter Region.

Hunter H<sub>2</sub>O was engaged by Hunter Water for the delivery of a bi-directional potable pipeline connecting Hunter Water and Singleton Council's potable networks.

This project formed one of four options from the Greater Hunter Regional Water Strategy, which aims to improve drought security, promote economic growth and better protect environmental assets across the Greater Hunter Region.

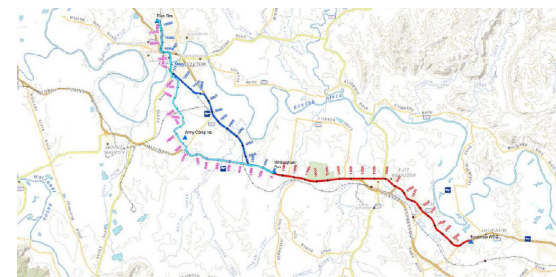
The project integrated a daily water balance with a detailed hydraulic network model to optimise the required augmentations that would enable bulk water transfers between two separate regions. Several options that compared costs with improvements in supply yield were considered. Options ranged from water banking using spare network capacity, through to substitution of all source capacity to free up stored water for alternate uses.

Hunter H<sub>2</sub>O assisted Hunter Water with the development of G0 Go/No Go Gateway Review and G1 Strategic Business Case. This documentation was prepared in accordance with Infrastructure NSW's Infrastructure Investor Assurance framework.

The project involved:

- Confirmation of Singleton Council's water needs from existing information
- Project management
- Augmentation analysis
- Options assessment
- Hydraulic analysis, including elevation profile, pipe and pump sizing, meeting peak demand, system utilisation profile, operating philosophy, reservoir sizing and location(s)
- Electrical analysis, including power requirements
- Control system analysis, including communication and control system requirements
- Community engagement plan
- Risk management plan
- Asset management plan
- Preliminary environmental assessment, including Aboriginal and European heritage constraints
- Preliminary procurement plan
- Feasibility study

This project was delivered successfully, met the requirements of Infrastructure NSW and will facilitate further project development.



### Tamworth Regional Council Emergency Water Supply Plan

Unprecedented drought conditions in the Namoi Region, with record low rainfall occurring across 2018 and 2019, led to town water supply systems facing severe stress, the implementation of severe water restrictions and major dams in the region dropping to record low storage levels.

In September 2019, Chaffey Dam was below 15% and Level 5 water restrictions were in place in Tamworth. The Tamworth water supply system was under severe stress and works were being undertaken to minimise water losses between Chaffey Dam and Tamworth in order to extend the remaining supplies as long as possible. In December 2019, the temporary Peel River weir was in place, and the Chaffey to Dungowan pipeline was nearing completion, significantly reducing, and eventually eliminating, water losses between the dam and Tamworth.

Without these drought contingency works, it was likely Chaffey Dam would have been empty by August 2020. With these works in place, it is hoped the remaining storage will last until around April or May 2021.

As Tamworth approached 12 months of water remaining in storage (when Chaffey Dam reaches 10%), Tamworth Regional Council (TRC) needed to start considering further drought contingency and emergency supply measures to ensure the town didn't run out of water. It was important to start planning for emergency supply measures early, to ensure there was sufficient time to implement these measures.

While TRC's Drought Management Plan had been its guiding policy document since water restrictions were first implemented in January 2019, an Emergency Water Supply Plan was needed to further guide TRC through this most critical stage of the drought, and to help plan for the potential worst case scenario of Chaffey Dam reaching zero storage.

The driver for this project was the urgent need to do everything possible to avoid the possibility of Tamworth running out of water.

Key project objectives were to:

- Prepare a high-level plan outlining the proposed demand and supply measures that should be implemented over the next 12 months to maximise the remaining supplies
- Start planning for a potential failure of supply from Chaffey Dam by considering emergency supply options (including water carting) and how these options could realistically be implemented
- Engage and work collaboratively with NSW Department of Planning, Industry and Environment and Water NSW on the preparation of an Emergency Water Supply Plan.



## Project Highlights





## Project Highlights

### Fraser Coast Regional Council Water Supply Catchment Assessment

Fraser Coast Regional Council operates the Hervey Bay, Maryborough and Tiaro drinking water supply systems.

Raw water supplies are sourced from the Burrum River and Cassava catchments for Hervey Bay, from the Tinana Creek and Mary River catchments for Maryborough, and from the Mary River catchment alone for Tiaro.

Water treatment plants are located at Burgowan and Howard for the Hervey Bay drinking water supply, at Teddington Weir for Maryborough and at the Tiaro township for Tiaro.

It is the community's expectation that Fraser Coast Regional Council (FCRC) maintains the necessary infrastructure and implements the appropriate management strategies to provide safe drinking water.

As part of implementing appropriate management strategies, FCRC sought to assess the catchment risks and rate the performance of the WTPs in respect to Health Based Targets (HBTs) for each drinking water supply system, to inform management policies and infrastructure planning.

Hunter H<sub>2</sub>O was engaged to:

- Review and amend FCRC's Catchment Management Plans to incorporate recommendations from the catchment and WTP assessments in respect to HBTs for the Hervey Bay, Maryborough and Tiaro drinking water supplies from a microbial and DBP perspective
- Undertake a review and amendment of FCRC's Drinking Water Quality Management Plan (DWQMP)
- Facilitation of a cybersecurity risk assessment (a requirement of a DWQMP in Queensland).

The objective of this project was to ensure the DWQMP remains the most up to date and relevant document for managing FCRC's drinking water supplies and to identify a programme of capital works required to address any shortfalls in water treatment capability in respect to HBTs.



### Southern Downs Regional Council Water and Wastewater Critical Asset Condition Assessment

## Project Highlights

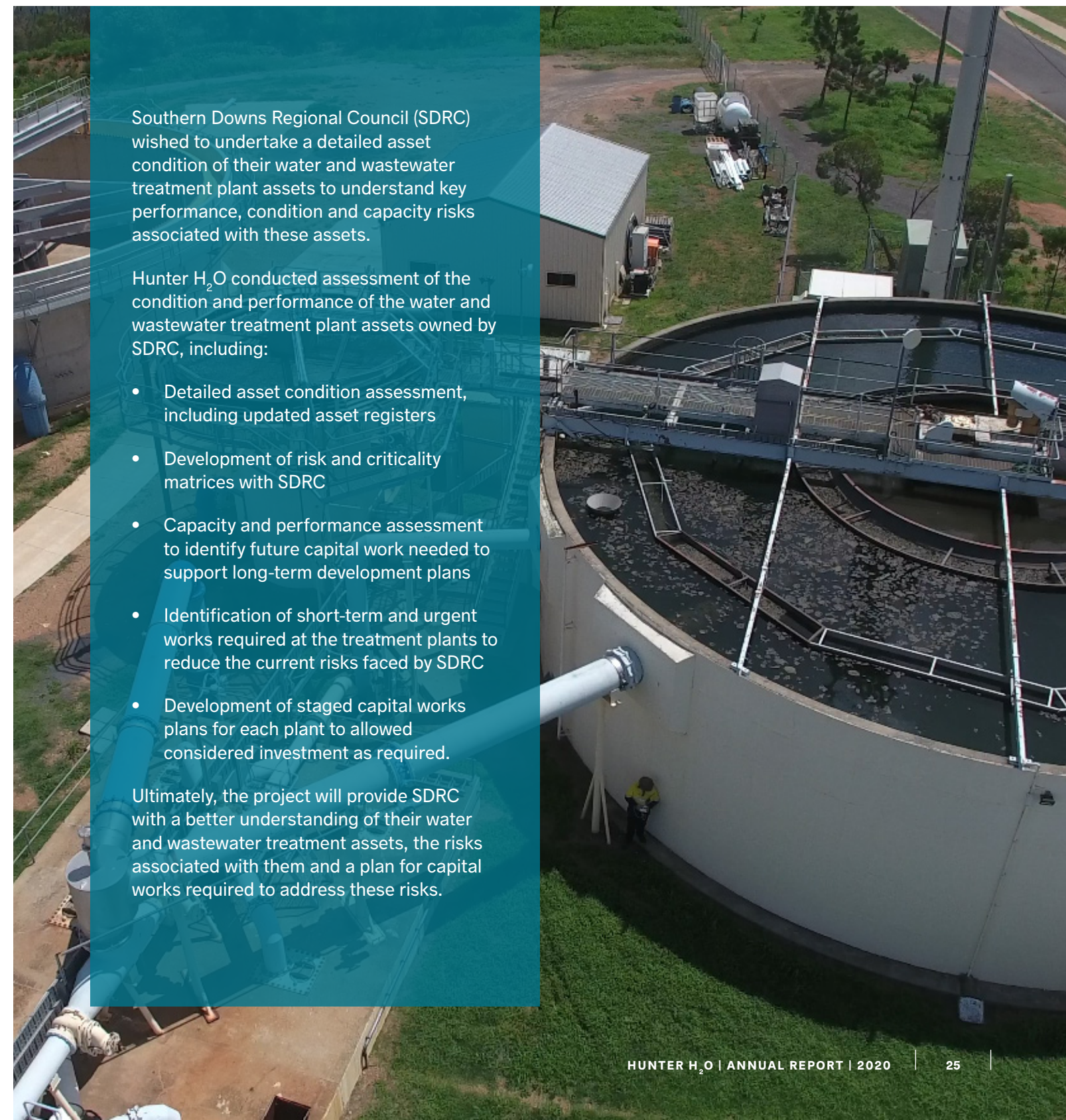


Southern Downs Regional Council (SDRC) wished to undertake a detailed asset condition of their water and wastewater treatment plant assets to understand key performance, condition and capacity risks associated with these assets.

Hunter H<sub>2</sub>O conducted assessment of the condition and performance of the water and wastewater treatment plant assets owned by SDRC, including:

- Detailed asset condition assessment, including updated asset registers
- Development of risk and criticality matrices with SDRC
- Capacity and performance assessment to identify future capital work needed to support long-term development plans
- Identification of short-term and urgent works required at the treatment plants to reduce the current risks faced by SDRC
- Development of staged capital works plans for each plant to allowed considered investment as required.

Ultimately, the project will provide SDRC with a better understanding of their water and wastewater treatment assets, the risks associated with them and a plan for capital works required to address these risks.







## Project Highlights

### Cairns Regional Council Freshwater Creek Water Treatment Plant Filter Upgrade

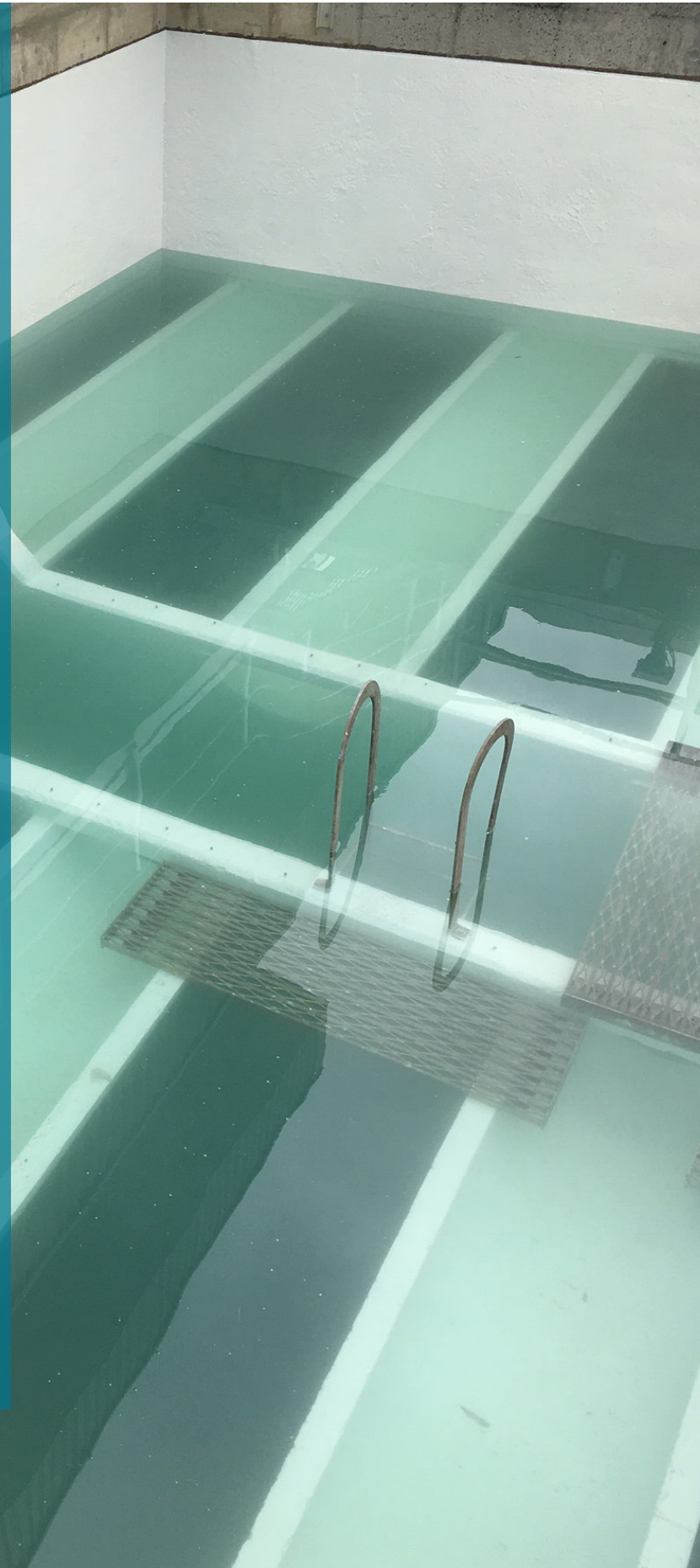
Freshwater Creek WTP is Cairns' largest water treatment plant.

Given the importance of getting filter refurbishments right the first time, Cairns Regional Council (CRC) elected to refurbish Filter 4 first. Hunter H<sub>2</sub>O was engaged by CRC to prepare detailed documentation for a Design and Construct (D&C) tender for upgrading the first of the six filters at the 85ML/d Freshwater Creek WTP. The project included:

- Completion of a detail design for the upgrade works
- Identification of the concrete repair works required within the filter
- Design, supply and installation of new filter underdrains
- Installation of new dual media
- Upgrading and replacement of the air scour blowers and pipework
- Installation of a new backwash water flowmeter and flow control valve
- Installation of new filter instrumentation
- Replacement of filter valving and pipework
- Installation of a new filter to waste system
- PLC and SCADA modifications for the upgraded filter.
- Commissioning and process proving

Our multidisciplinary team then:

- Prepared the detailed D&C contract and tender documentation
- Assisted CRC with responding to RFIs
- Tender evaluation
- Supported CRC with design reviews, construction support and process proving.



## Safety & Wellbeing



Safety is a core part of our values and purpose, and something we embed into our way of working. This past year has shone a light on mental health and wellbeing as we all faced challenging circumstances managing the COVID-19 pandemic. Whilst physical safety is always front of mind, we have had a concentrated focus on supporting our team's mental health and overall wellbeing.

We held four mental health awareness sessions in recognition of R U OK Day, focusing on tips and tools for managing mental health issues in the workplace. These sessions were well received by those who were able to attend, and recorded for those who were not. We also facilitated a bespoke session by an organisational psychologist to help our people to stay resilient during COVID-19 and beyond.

Eight of our employees volunteered to attend mental health first aid training to become Mental Health First Aiders. Their role is to be there for our people to reach out to, and to offer guidance to our people to access the support they need.



We're proud to have met our safety performance targets of no lost time or medical treatment injuries recorded in FY19-20. This performance was reflected in our management system certification, with no non-conformances raised from the SGS audit of our ISO9001 Quality Management, AS4801 Occupational Health and Safety and ISO14001 Environmental Management Systems.

We remain focused on maintaining this very high standard over the coming year and will continue to investigate options to drive improvements in safety and environmental performance.

### Healthy Minds @ Work For Employees

hunterh<sub>2</sub>O

DELIVERED BY EMILY FRASER  
(Psychologist, BPsych MOrgPsych)  
September 2019

LET'S TALK  
Mental Health

### Staying Resilient During COVID-19 and Beyond

hunterh<sub>2</sub>O

DELIVERED BY EMILY FRASER  
(Psychologist, BPsych MOrgPsych)  
June 2020

LET'S TALK  
Mental Health





# Corporate Governance

## Board of Directors

Hunter H<sub>2</sub>O aspires to meet high standards of governance and reporting. We are committed to incorporating governance standards of an equivalent public company. We have clearly defined roles for both the Board and the Executive Management Team.

Our Board is responsible for risk and strategic governance. The Board has adopted a robust governance structure of policies and processes which facilitates reporting and auditing. The Executive Management Team is led by the Managing Director and is responsible for the implementation of strategy, management of risks and the operations of the business.



**Brian Gatfield**  
Non-Executive Director  
Director since 2014  
Non-Independent  
Chair of the Board of Directors  
Chair of the Audit and Risk Committee



**Dr Kirsten Molloy**  
Non-Executive Director  
Director since 2015  
Independent  
Chair of the People and Culture Committee



**Peter Dennis**  
Managing Director  
Director since 2018  
Non-Independent



**Paul Thompson**  
Executive Director  
Director since 2014  
Non-Independent



**Jeremy Smith**  
Executive Director  
Director since 2018  
Non-Independent



**Jodie Golledge**  
Company Secretary



## Executive Leadership



**Peter Dennis**  
Managing Director



**Jodie Golledge**  
Chief Financial Officer  
Commercial Manager



**Jeremy Smith**  
Executive Manager: Design



**David Bowerman**  
Executive Manager:  
Electrical & SCADA



**Paul Thompson**  
Executive Manager: Process



**Nicole Holmes**  
Executive Manager: Advisory



**Shane Bullen**  
Executive Manager:  
Corporate Services