

# INFRASTRUCTURE INNOVATORS







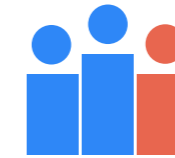
# ABOUT US

Pensar offers insightful, original design thinking, implemented by a team with proven expertise to deliver flexible fit-for-purpose critical infrastructure solutions. We design and realise infrastructure solutions for a range of industry segments, providing a broad spectrum of technical capabilities to serve the diverse needs across a range of industry sectors, from bulk water supply authorities and water utilities to regional councils.

With a unique combination of dependable technical skills and proven experience, our clients can choose to draw on one or many of these capabilities according to their project requirements across process water infrastructure, non-process water infrastructure, specialist infrastructure, infrastructure rehabilitation and electrical infrastructure. This provides our clients with the benefits of streamlined project planning, cost-effective delivery and the seamless Pensar experience.

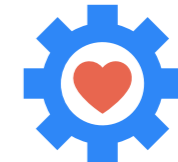


# OUR GUIDING PRINCIPLES



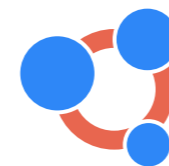
## People are everything

We **value diversity and inclusion** and strive for the power of collective wisdom by encouraging individual competition, but not at the expense of a strong team. We **reward on merit** while seeking out people prepared to **engage ethically and responsibly** with the skills and imagination to aspire to reach the highest levels.



## Doing the right thing

Doing the right thing is an **individual priority** and a **collective imperative**. We behave ethically and responsibly when faced with tough decisions about the **sustainability of our environment**, the **health and wellbeing of our people and our communities**, and the **safety of our work sites**.



## Relationships matter

Relationships are built on trust and collaboration. We recognise the **power of partnerships** that put the **project first** and are **solutions focused**. We adhere to the principle of no surprises and the rule of producer/leader/manager to ensure our key people are always close to the action.



## Bias for action

We have a bias for action, reinforced by **radical transparency and truth**. We make a powerful commitment to every project and **hold ourselves accountable** to get the job done. We will never be afraid to act when faced with uncertainty and recognise the critical importance of timely, **informed decision making**.



## Always improving

We are always improving. Not to be the biggest but to be the best through **constant innovation** and **continuous improvement** of ourselves, our systems and our work practices and methods. We deliberately **engage a growth mindset** that embraces change, accepts mistakes and learns from them, says no to what is not working and **strives for excellence**.





Pensar’s approach to project delivery has established long-standing relationships with clients, who benefit from a company who consistently delivers on expectations.

# OUR CAPABILITIES

## Key capabilities

- Process Water Infrastructure
- Non-Process Water Infrastructure
- Electrical Infrastructure
- Specialist Infrastructure
- Infrastructure Rehabilitation

Pensar designs and realises critical infrastructure solutions, constructing and overhauling systems to deliver more effective, efficient, and sustainable outcomes for the local communities, clients we serve, and the natural environments in which we operate.

As a trusted delivery partner, we are the preferred contractor for many sustaining capital delivery program works for water authorities, councils and government departments.

Our capabilities are drawn from the application of many years of experience, ensuring our clients’

peace of mind in the delivery of a project, along with the asset’s longevity into the future. We work across every part of the water lifecycle – from dams and weirs, pipelines to pump stations, treatment plants and recycled water networks with the capability to deliver complex critical infrastructure projects in-house

We are experienced in early contractor involvement (ECI) providing advantages to clients, stakeholders and contractors. We offer an early-stage approach to design and construction projects,

with the ability to review the proposed scope from the critical output requirements and functionality needs, through to constructability restraints and ongoing operational expenditure.

Pensar works in partnership with clients in developing an effective and efficient program, methodology and project management plans.

By challenging the industry norms, we provide an innovative ECI approach via optioneering workshops, delivering bespoke solutions for our clients unique projects.









# PROCESS WATER INFRASTRUCTURE

## Key Capabilities

- Water Treatment Plants
- Wastewater Treatment Plants
- Raw Water Treatment
- Recycled Water Treatment
- Cogeneration Plants
- Minor Works and Sustaining Infrastructure
- Process Design and Partner Delivery



### Merrimac Recycled Water Treatment Plant Upgrade City of Gold Coast

#### Design and Construction

Pensar was engaged by the City of Gold Coast for the design and construction of a new 5ML/day Recycled Water Treatment Plant within the existing Merrimac Sewage Treatment Plant.

Pensar's technical experience across multiple delivery capabilities enabled our process,

electrical and structural specialists to deliver this complex project as a standalone delivery team.

The scope of works included two concrete reservoirs and associated electrical infrastructure, covered dosing area, upgrade of adjacent STP dosing and storage, and above ground pipework and electrical fit-out.



### ASMTI Shoalwater Bay Training Area Wastewater Treatment Plant Laing O'Rouke

#### Design and Construction

Pensar designed and delivered a solution to deliver wastewater infrastructure, which permits a large buffering capacity, meeting the increased diurnal flows of typical military camp routines for when the Department of Defence Shoalwater Bay Training Area is in use. It also needed to endure large stand down periods of little to no flow for up to nine months.

As part of the early engagement works, Pensar presented four independently solutioned options working through the advantages and disadvantages of each during two optioneering workshops with the client.

Our tailored design solution provides Defence with significantly reduced ongoing operational expenditure, eliminating the requirement of full-time WWTP operators, and provides significantly cleaner final effluent to be used as irrigation on the training base land.

Additionally, Pensar's design solution facilitates potential future growth of the training facility and meets the effluent discharge target requirements of the Great Barrier Reef catchment regions.







## UV Disinfection Upgrades TasWater

### Design and Construction

Pensar designed, constructed, and commissioned UV disinfection systems across five water treatment plants on Tasmania's east and west coasts.

The project included installing containerised UV systems, excavation works, floor slab construction, and replacing existing pipework with new UV bypass configurations.



Electrical installations, including SCADA and communications conduits, ensured seamless operation.

Integrating the new UV systems into existing treatment plants required overcoming limited asset information, outdated drawings, and unknown service locations. Pensar mitigated these risks through detailed investigative

works and precise installation planning. Complex water main connections were successfully executed within strict shutdown windows of under six hours, ensuring continuous plant operation.

The completed upgrades enhanced water treatment reliability and system efficiency, providing a long-term, future-proofed solution for TasWater's network.

## Wetalla Aeration Upgrades Toowoomba Regional Council

### Design and Construction

Pensar designed and delivered an aeration system upgrade at the Wetalla Water Reclamation Facility, improving efficiency and operational reliability.

The project involved constructing a new Aerobic Digester 2 blower building and retrofitting two existing buildings with new blowers and pipework.

A staged changeover ensured uninterrupted plant operation throughout the upgrade.

The upgrade enhanced system performance and energy efficiency while reducing operational costs. Offsite pipework fabrication using 3D laser scanning and modelling eliminated on-site welding, improving safety and efficiency.

Staged construction prevented disruptions to the treatment process, with all shutdowns kept under four hours.

Completed two months ahead of schedule, the project delivered a long-term, future-proofed solution for the facility.



## Teddington Water Treatment Plant Upgrade Fraser Coast Regional Council

### Design and Construction

Pensar upgraded the sludge removal system at the Teddington Water Treatment Plant, enhancing efficiency and reducing manual handling.

The project included new pump stations, pipelines, automation systems, and structural works such as earthworks, concrete structures, and electrical installations.



The upgrade improved plant operations while maintaining full functionality throughout construction. Support frames and platforms were installed in advance, ensuring a seamless fit for new equipment. High-quality concrete structures provided a durable foundation for the system.

To enhance accuracy, Pensar utilised 3D laser scanning, integrating detailed site data with shop drawings to prevent clashes and minimise rework.

The project was delivered on schedule, providing a reliable, future-proofed sludge management solution.



### Cunnamulla Sewage Treatment Plant Upgrade Paroo Shire Council

#### Design and Construction



To meet environmental discharge targets, Pensar was engaged to complete the design and construction of a new wastewater treatment plant in the Paroo Shire.

This was necessary as the existing plant was unable to meet effluent discharge requirements, did not enable irrigation reuse and was unable to handle increased inflows due to growth in the region.

Pensar's bespoke design solutions ensure the new plant delivers full compliance with all environmental discharge and water quality requirements.

It has also delivered the added efficiency and versatility expected of a bespoke solution, that is perfectly suited to its application, region, and environment.

This included the requirement that all mechanical and electrical equipment be able to be maintained within the skillset of the local community.

Finalist – 2021 AWA QLD Water Awards

### Coomabah Sewage Treatment Cogeneration Plant City of Gold Coast

#### Design and Construction



Pensar was engaged for the design and construction of a cogeneration plant and the replacement of ageing water heaters.

The new cogeneration unit uses gas to generate renewable energy and the engine cooling water to heat the digesters. This will reduce plant energy consumption, optimise

the use of renewable energy and lower operational costs.

3D scanning was utilised by Pensar during the design phase to improve the efficiency and quality of the review process and final design. This technology demonstrated the advantages and enabled risks to be assessed,



concepts to be reviewed, and ultimately work to be completed within the hazardous area.

This project received a City of Gold Coast 2021 Work Health and Safety Award for 'Best Demonstrated Health and Safe Work Design'.



### Bulga Open Cut Coal Mine Flocculant Plant Glencore Coal Management

#### Design and Construction

As part of Glencore's Bulga Open Cut Mine Tailings Dam relocation project, Pensar was awarded the design and construction of a flocculant plant. The plant was required to be capable of dosing multiple dredged tailings feed lines at demanded dosing rates. The construction phase was completed adjacent to a fully operational mine road. The delivery team ramped up the site works with a considered program to reach practical competition on time despite multiple project delays.



### Bonny Hills Wastewater Treatment Plant Upgrade Port Macquarie Hastings Council

#### Design and Construction

As part of the NSW Environmental Protection Authority's Pollution Reduction Program, the Bonny Hills WWTP was upgraded to include an effluent reuse scheme. Works included the commissioning of a new UV disinfection system, CCT arrangement and electrical and control system upgrades to ensure the plant meets the requirements of the Australian Guidelines for Water Recycling and future growth and plant expansions.



### Molendinar Water Treatment Plant Backwash System Upgrade Seqwater

#### Design and Construction

The Molendinar Water Treatment Plant is the largest treatment plant on the Gold Coast, servicing most of the region. Pensar was engaged for the upgrade of the backwash and electrical systems. The project team effectively coordinated a 10-week whole of plant shutdown with minimal impact to the community. Upon the treatment plant being back online, Pensar created operation manuals for future works.



### Aubinville Sewage Treatment Plant Upgrade Fraser Coast Regional Council

#### Design and Construction

The existing electrical infrastructure and clarifiers at the Aubinville Sewage Treatment Plant were degrading and reaching the end of each components service life. Pensar was engaged to remove and replace the mechanical and structural componentry of the existing clarifiers and the design, installation and commissioning of electrical, instrumentation and communication systems.



Key Capabilities

- Pump Stations
- Pipelines
- Reservoirs
- Weirs
- Fishways
- Dams

# NON-PROCESS WATER INFRASTRUCTURE



## Boera and Homestead Dam Upgrades Department of Planning and Environment NSW

Design and Construction

As part of the Toorale Water Infrastructure Project, Pensar was engaged to deliver Phase 2, which included the upgrade of the existing dam regulator systems on the Warrego River in the Toorale National Park.

Pensar successfully completed the temporary works design and installation of the Homestead Dam Bridge using an InQuik bridging system in 28 days, from foundations to completion.



The project outcome enables a more flexible management of flows on and through the Toorale National Park to support environments on and downstream of the park.

The implemented measures, including fish passages and increased environmental flows, will continue the protection and sustainability of surrounding ecosystems.



## Wamuran Irrigation Scheme Unitywater

Joint Venture  
ECI, Design and Construction



The Wamuran Irrigation Scheme was designed and constructed with the intention of delivering Class A recycled water for agricultural irrigation.

The scheme provides local growers with a climate-independent irrigation, while reducing demand on dams and creeks, and diverting discharge away from local river systems.

After completing a customer focused ECI, Unitywater engaged the WIS JV (Pensar, Twin View Turf and Pinata Farms) to design and deliver the schemes infrastructure.

The WIS JV incorporated a customer focused design methodology consisting of an on-demand and pressurised solution beneficial to the end user.

Pensar's delivery incorporated the upgrade and repurpose of existing assets including pump stations and Moodlu Quarry, and the D&C of the site's HV power supply infrastructure.



## Toronto WWTW Diffuser and EAT Upgrade Hunter Water Corporation

### Design and Construction

Pensar upgraded the diffuser system and aeration tanks at the Toronto Wastewater Treatment Works, improving efficiency and long-term reliability.

The project involved assessing and selecting diffusers, installing a new lifting frame while EAT 1 remained operational, and desludging both aeration tanks using hydromining. Additional works included replacing six decant weirs, risers, and trumpets, undertaking concrete repairs, and commissioning the new diffuser systems.

Pensar developed a durable and efficient lifting frame to simplify future maintenance and carefully staged works to allow removal and installation without disrupting operations. The use of hydromining provided significant cost benefits by streamlining desludging and reducing manual handling.

The upgrades delivered a reliable, high-performing aeration system that will support the long-term operational needs of Hunter Water Corporation.



## Fitzroy River Barrage Fishway Upgrade Sunwater

### Design and Construction

Pensar was engaged to construct a new cone fishway on the northern bank of the Fitzroy River, enhancing fish passage alongside the existing vertical slot and cone fishways on the right bank.

The new structure supports the migration of fish, improving ecological connectivity by allowing greater passage during mass migration events. The fishway enables fish to traverse a 3.5m rise through a series of precast cone baffles, ensuring a smoother transition between saltwater and freshwater environments.

Construction sequencing was carefully aligned with tidal conditions, particularly for the installation of a 4m-high retaining wall at the riverbank footings, which could only be undertaken at low tide. A dewatering system was also implemented to manage fluctuating groundwater levels and maintain dry work areas.







**Kirkwood Treated Water  
Booster Pump Station  
Gladstone Area  
Water Board**

**Construction**

Due to the future expected growth of the Calliope region, Pensar was engaged for the construct and commission of the new Kirkwood treated water booster pump station.

The scope of works included construction of the pump station and chlorination building with

in-situ concrete foundation and precast concrete tilt panel walls, 300m DICL watermain, installation of two booster pumps and supply and installation of electrical main switchboard and distribution boards and associated conduiting, pits and cabling reticulation.



**Recycled Water  
Supply Zones Stage 1  
City of Gold Coast**

**Joint Venture, Design and Construction**

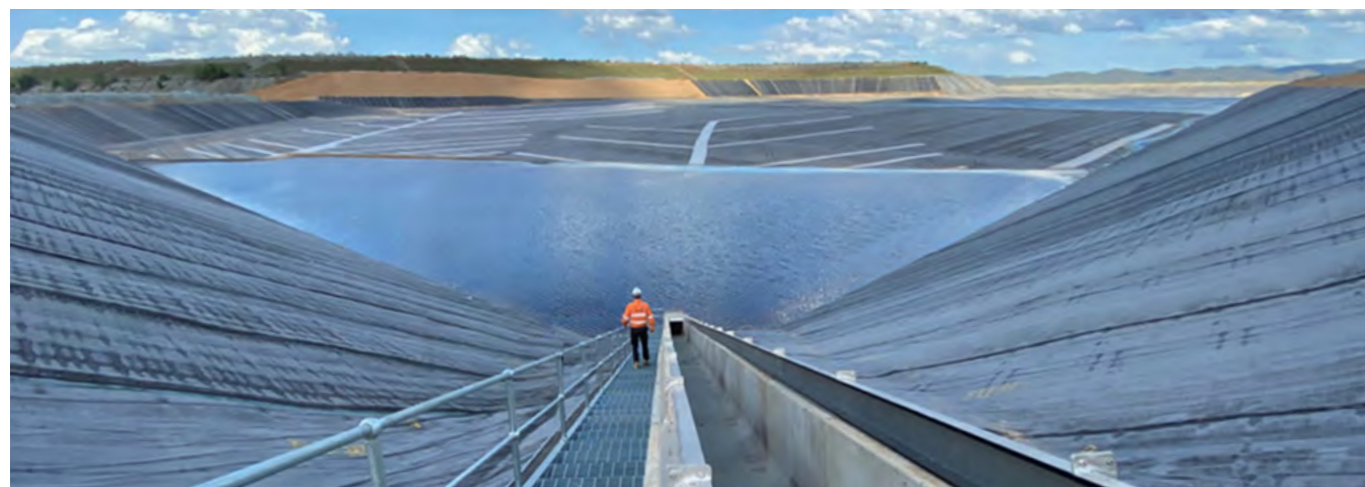
To ensure the future sustainability of Gold Coast green spaces, the City of Gold Coast is upgrading and expanding its recycled water network. Pensar was engaged for the delivery of Stage 1, which included over 10km of HDPE recycled water main providing a climate-resilient, affordable, reliable, and fit for purpose Class A recycled water supply for green spaces and sporting fields.



**Flinders Dolomite  
Reservoir Upgrade  
Urban Utilities**

**Design and Construction**

An upgrade to the Peak Crossing water supply network was required to provide security of present and future demands. As a value-add to our reservoir rehabilitation works, Pensar developed a new set of standard drawings to be used by Urban Utilities across 22 other chlorine dosing units. The drawings included SCADA integration and code block development.



**Ravenswood Tailings  
Storage Facility  
Ravenswood Gold**

**Construction**

Pensar completed the first stage construction works associated with a major upgrade and expansion of the Ravenswood Gold Mine in North Queensland.

This included building a Tailings Storage Facility (TSF) 40 times the size of the MCG, with a gabion wall that has the volume of four Olympic swimming pools and the installation of 660,000m<sup>2</sup> BGM liner.

Our scope of works at Ravenswood continues to expand as our team demonstrates great results and builds upon a strong relationship with Ravenswood Gold.

We have now secured the Stage 2A/B tailings dam construction works, including rock installation and compaction, cut to fill earthworks, BGM liner installation, overflow pipework installation, decant chute installation.



**Branyan Clear Water  
Storage and PAC Reservoir  
Bundaberg Regional Council**

**Design and Construction**

Pensar was contracted to deliver a new clear water storage and powdered activated carbon tank system. The works included the installation of all valves and equipment necessary for safe operation and isolation, chemical dosing pipework, stormwater drainage and all interconnecting pipework. The project team developed a 3D Navisworks model to explain and deliver the design to the relevant designers, consultants, subcontractors, and the client.



**Hammond Island Water  
Reticulation Upgrade  
Torres Strait Island Regional Council**

**Construction**

The works involved the decommissioning of the heavily dilapidated existing main and installation of a new one. The project team provided solutions and controls to the client, proving competency to deliver the project during the pandemic. Pensar batched and sampled their own work sending it onto Cairns for testing. Hydrostatic pressure testing and QA was completed via video.



## Boonah Fassifern Reservoir Construction Downer

Construction



The Boonah water supply network required upgrading to increase the service capacity and security of supply to meet current and projected demand.

Pensar was engaged for the construction of a new reservoir on the site, refurbishment of an existing reservoir and associated demolition works.

A proposed flyover platform system was proposed by Pensar as an alternative to the sunken roof system. This would improve the water quality and longevity of the reservoir.

As an outcome of this project delivery, Pensar was awarded the Reservoir 131 Birnam Range reservoir refurbishment.

## Cooranbong Water Centre Construction Flow Systems

Construction



This two-stage project involved the construction of a new greenfield local water centre via an MBR plant to service the new subdivision.

**Stage 1:** Completion of all related works to enable a fully functional potable water system for the development including two 1.25ML storage tanks.

**Stage 2:** Construction of the new dual train 1ML MBR STP complete with membrane bioreactor tank, main control building and two additional 1.25ML storage tanks.

Pensar engaged a full-time spotter to relocate protected fauna and their dwellings when required and successfully met all environmental requirements.

## Moura Raw Water Pump Station Upgrade Banana Shire Council

Design and Construction



Pensar was engaged to increase the Moura Raw Water Pump Station's instantaneous flow.

The Banana Shire Council also required a solution to retrieve the pumps from the river during a Q100 flood without having to work over water.

Pensar designed a custom hose reeling machine and pump catch tray to enable the pumps to be

pulled from the depths of the river and be maintained without having to be disconnected from the flexible rising main.

As well as doubling the pump station's flow capacity from 50L/s to 100L/s, the refined design also eliminated the hazard of working over water and provided additional drought resilience with lower intake levels.

## Plainland Sewer Pump Station and Laidley Sewage Treatment Plant Upgrades John Holland

Design and Construction



Driven by surrounding population growth, Pensar was engaged to convert an existing sewage catchment, serviced by tankers, to a pump station with rising main to a nearby treatment plant, as the tankering was becoming unviable.

Pensar undertook a redesign of the trenchless sections (HDD and auger bores) to minimise the disruption to the community.

This redesign also avoided any unpermitted lane closures on the surrounding TMR roadway.

The project scope of works included installation of 11km of pipe, supply and installation of 18 air valves, 18 section valves and 10 scour valves.



# SPECIALIST INFRASTRUCTURE

## Key Capabilities

- Offshore Marine Works
- Nearshore Marine Works
- Wharf Construction
- Specialist Structures

### Bullock Point Boat Ramp, Floating Walkway and Car Park TMR

Construction

Pensar was engaged for the construction of a three-lane boat ramp and floating walkway at Bullock Point. The facility was designed for both recreational boating and barge loading and unloading, with two of the lanes constructed to take barge loads.

The upgraded facility was constructed in the footprint of the existing unofficial boat ramp, with only a slight deviation due to the size increase.

The scope of works included a new three-lane precast concrete planked boat ramp, new floating walkway and purpose-built bitumen sealed car park to accommodate 25 car-trailer units and 10 single cars.

Works ensured that there was minimal impact to the Great Sandy Strait and Fish Habitat Catchment Area ensuring the future sustainability of this recreational boating asset and surrounding ecosystem.



### Relieving Slab Replacement Port of Brisbane

Construction

Due to ageing of the existing infrastructure on Wharf 1 and 2 at the Port of Brisbane, Pensar was engaged to demolish and replace the relieving slabs and upgrade the under wharf services.

The scope of works included staged demolition of Wharf 1 and 2's existing relieving slabs,



fabrication, transportation and placement of 110 precast panels at 7m x 3m and weighing 30t, as well as the decommissioning and recommissioning of under deck services.

Due to the existing infrastructure not being uniform, Pensar suggested keeping all 110 new

panels at the one thickness and applying a grout corrector layer ensuring all panels were within the specified height tolerances.

Utilising a considered program, all works were completed across a fully operational receiving wharf.





### Stanage Bay Boat Ramp and Floating Walkway TMR

Design and Construction

Stanage Bay is the gateway to some of the Capricorn Coast's most sought after fishing locations and the project was part of a \$30 million Government commitment to Marine Infrastructure.

Pensar completed the construction of a two-lane boat ramp, installation of a new 2.5m wide floating walkway and berthing piles and construction of breakwater.

The project team utilised 3D modelling to visualise the ramp and floating walkway to assist in solving design and construction unknowns.

Significant environmental considerations were required around cultural heritage, flora and fauna, soil, tidal works and marine plant disturbance.



### Jimboomba Park Redevelopment Logan City Council

Design and Construction

The sports park redevelopment located at South Road Jimboomba forms a core element of the strategic regional plan.

Pensar partnered with Logan City Council to deliver key construction and design elements encompassing a diverse range of architectural and structural building works.



The project included the construction of rugby league change rooms, a netball clubhouse, including commercial kitchen and meeting rooms, renovating the pony club facilities and the design and construction of an Olympic standard dressage arena and amenities block.



### Macleay Island Foreshore Precinct Redland City Council

Construction

The long-awaited upgrade of the Macleay Island foreshore precinct provides substantial improvements to island parking issues, allows for separation of barge and recreational boat users, and sealed asbestos contamination on the foreshore. Pensar's scope of works included a 3m high rock-armor seawall, three-lane boat ramp and new car park, including retaining walls and noise barriers.



### Growler AEAC Facility Lendlease

Construction

As part of the Growler Airborne Electronic Attack Capability (AEAC) Facility Project at RAAF Base Amberley, Pensar was contracted to construct a new hardstand for 12 aircraft. The scope of works included the demolition of existing aircraft apron, including 20,000m<sup>3</sup> of concrete, 70,000m<sup>3</sup> of bulk earthworks and laying 23,000m<sup>3</sup> of concrete across a 65,000m<sup>2</sup> footprint.



### Redland Bay Vehicle Ferry Terminal Upgrade SeaLink

Design and Construction

Pensar was engaged to upgrade the Redland Bay Vehicle Ferry Terminal to accommodate SeaLink's new fleet of ferries. The upgrade includes significant marine and shore-based infrastructure improvements to enhance operational efficiency and increased vessel capacity.

Marine works included dredging, sheet piling, rock reclamation, armour placement, and berthing pile installation. Shore-based upgrades encompassed full underground service replacements, including a new power supply, site-wide electrical reticulation, a 70kL diesel fuel system, and potable water and sewer connections from vessel to mains.

The upgraded terminal now provides improved accessibility, enhanced operational capacity, and future-proofed infrastructure to support the expanding ferry fleet.



# INFRASTRUCTURE REHABILITATION

## Key Capabilities

- Structure Remediation and Strengthening
- Specialist Coatings
- Jointing Systems and Sealing
- Reservoir Roof and Access Replacement

### South Bank Promenade Remediation City Parklands Services

Design and Construction

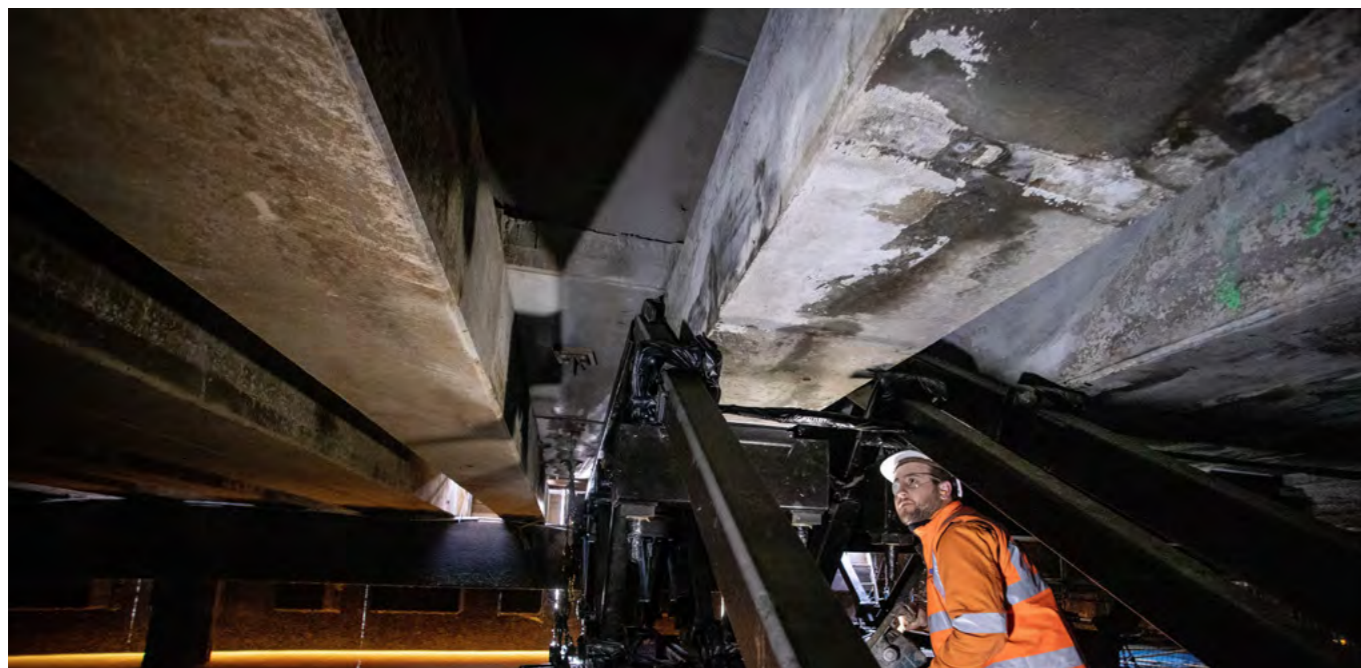
The South Bank boardwalk is a major public thoroughfare and one of the most heavily pedestrian trafficked sections of the South Bank Parklands.

Routine maintenance inspections identified concrete decking units, which required structural strengthening to ensure the load capacity of the promenade was maintained.

Pensar proposed an alternative methodology of repairing and stabilising the original concrete decking, then reinforcing the foundations with steel trusses.

Due to limited access, crews worked around the tides leaving only four hours each day to enter and leave the works area. Upon installation of the working platform proposed by Pensar, crews were able to operate in waders up to eight hours a day.

This project was awarded an ACRA Award for Excellence.



### Greenbank Reservoir Renewal Logan Water Infrastructure Alliance

Design and Construction

The rehabilitation works at Greenbank Reservoir were part of the Logan Water Infrastructure Alliance's Reservoir Renewals project, which involved the remediation and refurbishment of three reservoir sites across South East Queensland.

The Greenbank site involved the rehabilitation of the existing water

reservoir infrastructure consisting of two low level reservoirs and one elevated tower reservoir.

Due to the restrictive logistics of accessing the work area, Pensar devised an alternative solution to erecting scaffolding inside the 35m wineglass shaped structure.

The solution provided a more cost-effective and practical approach, by leaving the water inside, isolate the basin and crane in floating pontoons to use as working platforms.







### Tasmanian Bridge Strengthening Works Department of State Growth

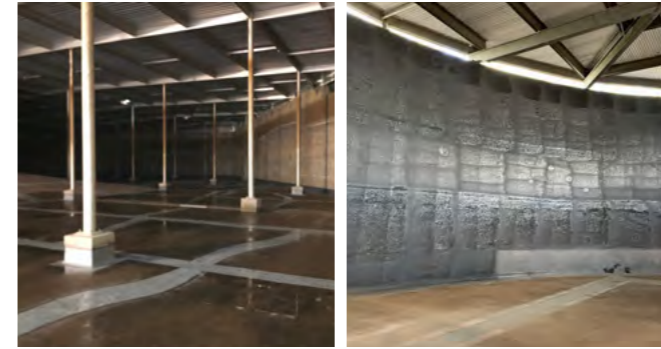
#### Remediation

With a carefully planned and delivered program of repair and retrofitting, Pensar restored and strengthened seven ageing concrete bridges in regional Tasmania.

This preserved the integrity and extended the lifespan of the original concrete structures, avoiding extensive demolition and reconstruction.

Contrary to the tender specification, Pensar recommended electrochemical realkalisation treatment to restore and stabilise the existing concrete structures and prevent reinforcement corrosion. This technique had not previously been used in Tasmania.

This project was awarded a CIA Excellence Award, an ACRA Award for Excellence and the ACRA Remedial Industry Excellence Award.



### Hunter Water Reservoir Refurbishments Hunter Water Corporation

#### Remediation

Pensar was engaged for the refurbishment of one above ground and two partially buried reservoirs. The scope of works included the supply and application of polyurea membrane system, restoration of distribution surfaces and sandblasting and recoating of steel reservoir access platforms. Pensar was awarded an ACRA Award Winning Project for the delivery of these works.



### Sunshine Coast Bridge Repairs Package Sunshine Coast Council

#### Rehabilitation

Following a series of Level 2 bridge inspections, the Sunshine Coast Council contracted Pensar to complete the rehabilitation of four bridges to extend the service life of the assets. A combination of spraying and rolling applications combined with the use of a barge deck and catching nets ensured no chemicals entered waterways. Pensar went on to complete an additional two bridge rehabilitation packages for the Council.



### Murray River Bridge Repairs Murray River Council

#### Rehabilitation

Pensar was engaged to carry out concrete investigation and analysis of defects to eight bridges. In collaboration with a consulting engineer, Pensar designed a rehabilitation program to extend the service life of the assets, which considered varying deterioration mechanisms. Scientific evaluation of the defects allowed Pensar to develop a methodology and provide a solution that met the requirements of the client. This project was awarded an ACRA Winning Project Award.



### Cairns Reservoir Refurbishments Cairns Regional Council

#### Rehabilitation

To meet current and projected water supply demands, Pensar was engaged for the upgrades of the Henley's Hill, White's Gap and Janett Street reservoirs. Works for each reservoir included the repair and replacement of the roof, components, box gutters, hatches and ladders, application of protective coatings, crack injection and installation of internal liners.



# ELECTRICAL INFRASTRUCTURE

## Key Capabilities

- Electrical Engineering
- LV and HV Distribution
- Industrial
- Control Systems
- Traffic Signals
- Street Lighting
- Electrical Infrastructure Maintenance
- Utility Engineering and Management



## Mount Crosby East Bank Flood Resilience Critical Electrical Infrastructure Upgrade Seqwater

### Design and Construction

Pensar was engaged by Seqwater for the design and construction of critical electrical infrastructure upgrades as part of the East Bank Flood Resilience Project.

Pensar developed the design and project delivery strategy to enhance the resilience and



reliability of the Mount Crosby Water Treatment Plant and Recycled Water Pump Station.

The works includes replacing transformers at the WTP, upgrading high-voltage motors and the HV main switchboard at the RWPS, constructing new spares shed, and

installing a new HV conduit bank and pits for cable routing between the substation and RWPS.

The use of full 3D modelling ensured precise integration of new components, minimising risks and enhancing project efficiency.

## North Pine Water Treatment Plant HV Upgrade Seqwater

### Design and Construction

Due to ageing infrastructure, Pensar was engaged to upgrade the North Pine Water Treatment Plant HV infrastructure.

Works included the design, supply, construction, and installation of the HV switchboard, control systems and cabling.

The existing cabling was replaced, along with the upgrade of the two dedicated Energen feeders from the Zone Substation and upgrades to the Energen metering room.



Due to the size and critical scope of this project, Pensar identified the benefit of conducting a HV workshop at the commencement of the design process to ensure a solutions-based outcome.

## Kirkwood Treated Water Booster Pump Station Gladstone Area Water Board

### Design and Construction

With the future expected growth of the Calliope region, Pensar was engaged for the construction of the new Kirkwood Booster Pump Station.

Pensar delivered the electrical, structural, hydraulic and electrical components of the new asset.

Works included the supply and installation of the main switchboard and distribution boards, connection to Ergon Energy mains power, conduiting, pits and cabling reticulation, and the supply and installation of monitoring and control instrumentation equipment.



Pensar successfully completed the new water main connection to the existing main within a six-hour window ensuring no impact to the Calliope residents supply through coordinated management of crews and contingency planning.





### Wamuran Irrigation Scheme HV and Distribution Unitywater

Design and Construction

The Wamuran Irrigation Scheme (WIS) has been designed with the intention of delivering Class A recycled water for agricultural irrigation.

This scheme is a large-scale project, requiring a high voltage feed through an Energex 11kV

feeder, as well as a HV switchboard and six distribution transformers.

Pensar designed, procured and constructed the Local Control Cabinet and HV, including construction of the associated switchrooms.



### Callide Dam Main Switchboard and Generator Control Panel Sunwater

Design and Construction

Callide dam main distribution and diesel generator control boards reached the end of their life-cycle requiring replacement. Following electrical asset condition assessments that identified multiple operation failures and age-related defects with the boards, Pensar was engaged to design, supply, install and commission a new 415V main switchboard and standby generator control panel.



### Runway Visual Range Brisbane Airport Corporation

Design and Construction

Working to a tight completion deadline, Pensar delivered a new runway visual range system that allowed for the safe landing and take-off of aircraft in low visibility at the Brisbane Airport. To assist with the project program, Pensar proposed and implemented a design change which reduced the conduits required depth.



### Traffic Signal Panel Works Brisbane City Council

Construction

Under this three-year contract, Pensar undertook more than 150 minor works projects to repair or replace damaged traffic signal assets.

Requests for tender (RFTs) had to be responded to within 48 hours and works completed within ten days.

Works included the installation of pedestrian posts, joint use and mast arm poles, recovery of existing poles, lanterns and footings, excavation and installation of new footings, minor civil works and all electrical operations and testing.



### Brisbane Markets Energex HV Works Brisbane Markets Limited

Construction

Pensar was engaged to deliver new Energex infrastructure to the construction of a new cold storage facility. The project involved the construction of two elevated outdoor substations (due to flood levels of the area), installation of conduit infrastructure and HV cable, recovery of existing overhead lines, switching and commissioning of the substations.



### Gold Coast Light Rail CPB Contractors

Construction

This project involved extending the light rail system, including 7.3km of new track and three new stations. Surrounding roads were upgraded and new car parks constructed. To allow for the construction of the new rail line, existing infrastructure and overhead services were relocated. Pensar was engaged to install new assets for the relocation of Energex high voltage services, the construction of four TPIS Substations and the install of the rail corridor lighting system.



# OUR MANAGEMENT SYSTEMS



Pensar maintains a well-documented management system that serves as an effective risk management tool and communicates our focus and commitment to our quality assurance, workplace health and safety and environmental management processes.

## Safety

Pensar strives to be recognised as an industry leader in health and safety performance and follows industry best practice. Safety is our highest priority and our very low Workers Compensation Premium Rates are evidence of our proven health and safety systems and culture.

INDUSTRY WORK COVER PREMIUMS	
INDUSTRY RATE IS	PENSAR'S RATE IS
2.23	0.22

## Mining Qualifications

Ensuring safety, efficiency and compliance on our mine project sites, Pensar key team members are G1, G8 and G9 qualified. These qualifications equip and support our onsite teams with advanced knowledge prioritising safety, optimising productivity and contributing to the success of mining sites in Australia.

## Community

Pensar has aligned itself with grassroots organisations where our team members can be actively involved and see first-hand the impact of their positive actions and contributions.

## Quality Assurance

Pensar puts systems in place to ensure our projects deliver a level of quality that exceeds client expectations. With the application of our management systems, we ensure all employees, suppliers and subcontractors operate with Pensar's quality objectives in mind.

## Environment

Pensar is committed to reducing environmental harm and minimising our impact on the environment. We believe excellence in environmental performance is essential and effective environmental management is an integral part of all projects.

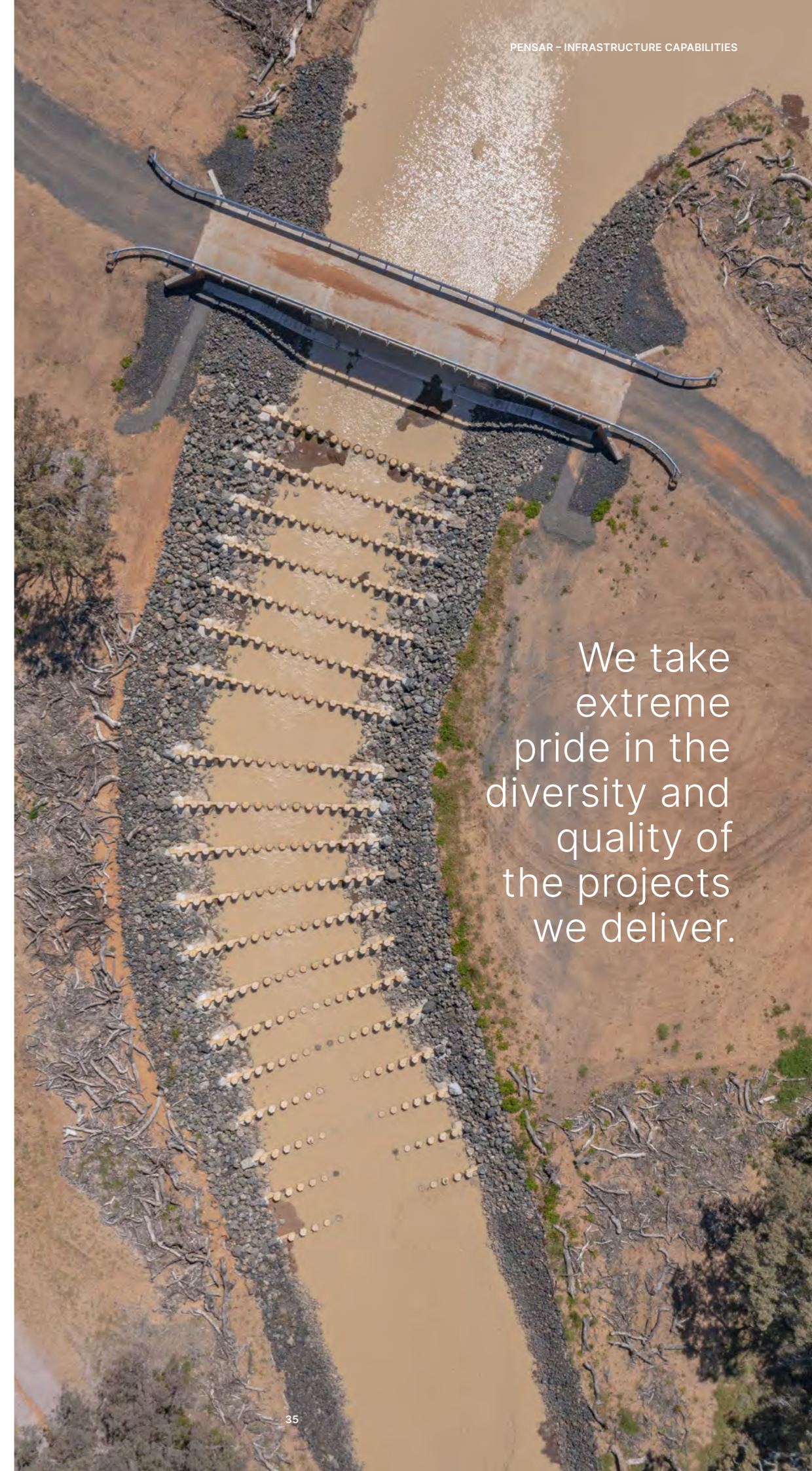
## Procurement

Pensar always aims to use a local workforce where possible. Our policies

and procedures ensure our procurement principles are ethical whilst ensuring we focus on value for money, quality products.

## Aboriginal and Torres Strait Islander Peoples

Pensar fosters a comprehensively inclusive culture where Aboriginal and Torres Strait Islander Peoples participation and cultural heritage is included as a core function of the company's management processes. Aboriginal and Torres Strait Islander Peoples communities play an active role in caring for the natural environment and landscape, particularly in the regional and remote locations where Pensar often operates. We are committed to sharing the values and knowledge of Aboriginal and Torres Strait Islander Peoples at all levels of our business, and to forging a workplace where diversity and these values are acknowledged, celebrated, and appreciated.



We take extreme pride in the diversity and quality of the projects we deliver.

<p><b>Industry Certifications and Accreditations</b></p> <p>Occupational Health and Safety Management Systems Standard ISO 45001 (GRS Quality Management System, Certificate number: 4779001610075)</p> <p>Environmental Management System Standard ISO 14001 (GRS Environmental Management System, Certificate number: 47714001610075)</p>	<p>Quality Management System Standard ISO 9001 (GRS Occupational Health &amp; Safety Management System, Certificate number: 47745001610075)</p> <p>OFSC: Pensar Water, Pensar Building, Pensar Project Infrastructure: Certificate number: 341</p> <p>Building Services Authority PQC3</p> <p>Energex Accreditation Rating WCS2, 34, 37 &amp; 61</p> <p>Ergon Energy Approved Suppliers Register Rating B</p>	<p>Austrroads DSG (Tas) BM/F5 &amp; DTP (Vic) M2/BW</p> <p>Silver Master Electrician</p> <p><b>Licences</b></p> <p>QBCC Contractor Licence 1081361</p> <p>QLD Government Electrical Contractor Licence 76158</p> <p>NSW Government Electrical Contractor Licence 266065C</p>
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## Get in Touch

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