

# WATER INFRASTRUCTURE





# Water infrastructure

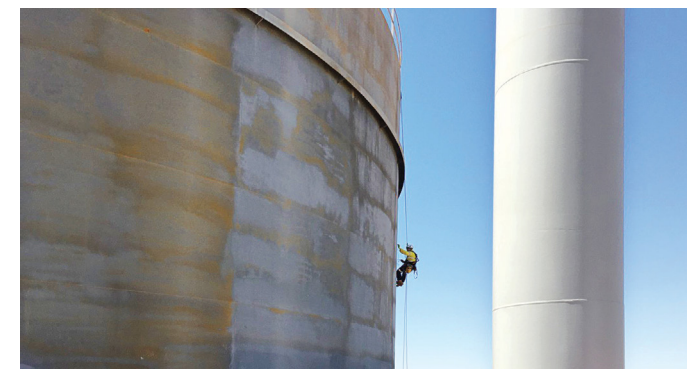
Duratec's specialist teams can deliver all your water and wastewater infrastructure needs. Our engineers, project managers and delivery teams have extensive experience in designing and delivering innovative and sustainable water infrastructure solutions that transform your ideas into reality and provide a high quality and sustainable asset.

## Your water partner

Duratec will provide you with water infrastructure solutions which address your need to provide safe, durable and technologically advanced systems. We have the capability to provide value engineering and allow for future expansion and maintenance requirements. Our dedicated teams provide turnkey solutions for water infrastructure projects and work with you to ensure works are completed on time, within budget and with minimal disruption to the environment and operations. Duratec's experienced team can construct water retaining structures in both steel and concrete that are both durable and leak free.

## Our core business

We are a national engineering, construction and remediation business with the depth and capacity to deliver large, complex and sustained water infrastructure projects. We have a history of completing diverse design and construct projects in the Commercial, Resources and Defence industry sectors. Our extensive experience in construction and remediation has positioned us as a market leader with a reputation for technical expertise, value for money and innovation.



## Our guiding principles to improve the performance of our projects are:

- Do zero harm
- Use what has worked before
- Be flexible and innovate
- Plan to succeed
- Quality first

## We fully manage and execute a variety of projects models including:

- Construction
- Shutdowns
- Term Maintenance contracts
- Maintenance projects
- Sustaining and minor capital works



# Durability & integrity

The durability and integrity of water infrastructure assets is critical to ensuring reliable supply. Tanks, pipes, reservoirs and all other types of water infrastructure can be exposed to aggressive environments both internally and externally. Understanding these environments, the conditions of existing assets as well as the design measures to protect new assets, is critical to achieving the intended design life for new assets or extending the services life of existing ones.

## Investigation

Our Technical Division consists of a team of specialist engineers who conduct technical condition assessments on a wide range of structures. Once the survey is complete, the client is issued with a report that identifies the root causes of the problems, provides innovative fit-for-purpose solutions and realistic budget estimates for the costs of remediation versus demolition and replacement.

## Material selection

Water infrastructure experiences durability issues such as corrosion, water ingress and leaks within their assumed service life. Our extensive experience in durability planning and careful materials selection provides long lasting cost benefits and optimal operational efficiency, to ensure that the intended design life of your water asset is achieved

In addition to material selection Duratec will design, supply and install cathodic protection systems when warranted in both new and existing water infrastructure to extend the life of water assets.

## Cathodic protection

Cathodic protection systems are an electrical means of controlling corrosion in steel. Selection of an appropriate cathodic protection system for your structure can reduce both the maintenance costs as well as reduce the operating costs of the cathodic protection system over time.

We can provide a complete cathodic protection design and specification service for your next project which takes into account the geometry and exposure conditions of the structure and the reinforcing steel content and spacings, to ensure the maximum service life of your asset.



# Total service offering

Our experience in construction management, material selection and installation enables us to deliver quality results on time and to budget. We understand regulatory compliance requirements and can provide facility operational optimisation to reduce maintenance and provide whole of life cost savings.

## Tanks, dams & reservoirs

We have extensive experience in the construction and remediation of tanks, dams and reservoirs. We utilise both in situ formwork systems and pre-cast conventionally reinforced or post tensioned construction methods.

As your tank, damn or reservoir ages our specialist teams can diagnose problems and deliver tailored remediation programs to extend the life of your asset, including roof replacements.

## Wastewater

Duratec is experienced in delivering remediation works to operational wastewater facilities. We work with you to divert flow channels or determine low flow times to deliver works. Our teams are experienced in delivering grouting, benching and epoxy coating of inlet chambers, penstocks, band screens and grit channels.

## Pipework

Our teams have demonstrated experience in constructing and maintaining both above and below ground pipework, pumps, actuators, valves, trunk mains, stormwater and sewage. We can provide innovative methodologies and systems to produce a value for money solution to your pipework requirements.

We understand the specific requirements associated with underground infrastructure including contaminants, under boring, de-watering, shoring and benching the trenches to maintain safety and quality of the installed pipework. In addition to new pipework we can increase the operational life of your existing assets through cast in place pipe relining or the introduction of cathodic protection systems.

## Specialist civil services

Duratec’s civil engineering experience and specialist civil services allow us to deliver your project with confidence to your highest expectations.

This diverse ability provides single point accountability for our clients meaning a large range of services can be delivered under one contract. We have the capability to complete the whole project from bulk earthworks, detailed earthworks, steel fixing, forming and concreting.

## Networking & controls

Duratec has both PLC and SCADA network experience on water infrastructure projects. Existing systems can be re-programmed or new designs can be developed and implemented. We partner with industry professional to offer whole-of-life control mechanisms that can be easily maintained and amended, extend the life of your asset.

## Electrical

Electrical systems that have outlived their expected lifespans can create an operational and safety risk. Replacement of electrical systems provides the opportunity for improved system functionality through the latest technologies. The services and systems we provide include:

- Full electrical building upgrades
- Lighting and power installations and upgrades
- Switchboards and lightning protection systems
- Installation of fibre optic services
- Fire remediation systems
- Emergency lighting
- Fueling system upgrades
- Hazardous area upgrades
- Service tunnel lighting and upgrades
- Ring main upgrades
- HV works

## Blasting & painting

The protection of steel and concrete tanks, dams and reservoirs by abrasive blasting and coating is one of the most economical and effective methods of combating corrosion, chemical attack and abrasion.

Duratec has in-house capabilities to undertake abrasive blasting and painting of water infrastructure and NACE qualified inspectors to inspect and install high quality protective coating systems. We maintain PCCP accreditation demonstrating our commitment to quality and safety according to industry best practice and guidelines.

## Access solutions

We offer a wide range of access solutions and have extensive experience in designing and constructing effective and safe access systems to suit the working conditions including Rope Access, Scaffold Systems, Elevated Work Platforms and Diving Teams.

DESIGN

| SERVICE OFFERING      |                        |
|-----------------------|------------------------|
| Condition Assessment  | Maintenance Planning   |
| Infrastructure Design | Services Design        |
| Structural Design     | Temporary Works Design |

CONSTRUCTION

| SERVICE OFFERING       |                             |
|------------------------|-----------------------------|
| Civil Construction     | Infrastructure Construction |
| Precast Concrete Tanks | Specialist Access Systems   |
| In Situ Concrete Tanks | Steel tanks                 |
| Pipework               | Mechanical/Electrical       |

UPGRADES

| SERVICE OFFERING         |                       |
|--------------------------|-----------------------|
| Structural strengthening | Waterproofing Systems |
| Electrical Upgrades      | Cathodic Protection   |
| Pipeline Integrity       | Roof Replacements     |

MAINTENANCE

| SERVICE OFFERING        |                              |
|-------------------------|------------------------------|
| Blasting & Painting     | Mechanical / Electrical      |
| Scheduled Maintenance   | Wastewater repair & coatings |
| Concrete & Joint Repair | Water storage coatings       |

360°





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