

Water Solutions for Infrastructure and Urban Development



Infrastructure and Urban Development Applications

Water and wastewater treatment requirements for infrastructure and urban developments are typically temporary facilities for construction phase, or permanent infrastructure for ongoing operations.

Projects in construction phase often require treatment plants for production of construction and/or potable water, and treatment of contaminated wastewater and/or sewage for onsite reuse or compliant discharge. Projects may also require permanent infrastructure to supply potable/drinking and/or process water, and to treat produced/ industrial wastewater and/or sewage for onsite reuse or compliant discharge.

Understanding your water and wastewater treatment options early in the planning process reduces risk by preventing unnecessary delays in your project and maximises the use of your valuable resources. MAK Water works collaboratively with your estimating, engineering and environmental teams to develop smart solutions for every stage of the infrastructure life cycle, to meet your project objectives.

Whether you require construction water or wastewater treatment for a road or tunnel project, demineralised water for a hospital, or recycled wastewater for a heavy vehicle washbay, MAK Water's wide range of plant designs means we can meet all your infrastructure project's water and wastewater treatment requirements.

TRANSPORTATION

- ◆ Roads
- ◆ Tunnels
- ◆ Rail
- ◆ Ports
- ◆ Airports
- ◆ Council facilities

UTILITIES

- ◆ Municipal water and wastewater
- ◆ Power stations
- ◆ Pipeline compressor stations

DEFENCE

- ◆ Defence bases
- ◆ Training areas
- ◆ Temporary construction camps
- ◆ Emergency response

BUILDING SERVICES

- ◆ Hospitals and health facilities
- ◆ Schools and universities
- ◆ Commercial and government buildings and infrastructure
- ◆ Remote communities
- ◆ Correctional facilities



HEALTH, SAFETY AND THE ENVIRONMENT

MAK Water places the Health and Safety of our people, clients and contractors, and care of the Environment as our highest priority.

Smart Infrastructure Expertise

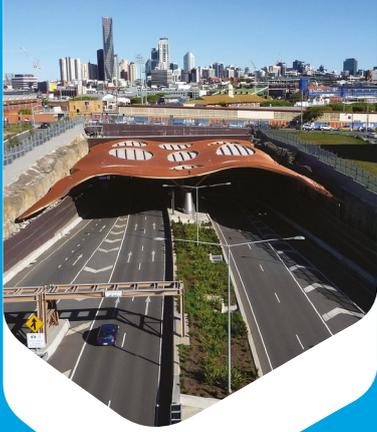
TECHNICAL SUPPORT FOR TENDERS. You need someone that will understand your project, be able to present a number of possible solutions, and respond quickly to requests for quotation to support your bid process. When the project commences, MAK Water provides ongoing technical support to understand your site requirements and provide the best possible solution.

EXPERIENCED. From construction water and wastewater for road and tunnel projects, demineralised water for hospitals and power stations, to potable water and sewage treatment for ports, airports and remote communities, MAK Water has delivered solutions for infrastructure and urban development projects throughout Australia and internationally.

LOW RISK SOLUTION. Equipment reliability is paramount to ensure no interruptions to tight schedules. MAK Water has an established track record of manufacturing fully automated, high quality equipment for maximum reliability.

HIRE SOLUTIONS. We understand that temporary equipment is often required for construction projects or in response to unforeseen circumstances. MAK Water operates an extensive fleet of hire plants that can be rapidly deployed at short notice.

24 HOUR LOCAL SUPPORT. Efficient and professional wastewater, sewage and water treatment support available 24/7 from service teams located in every mainland state in Australia provides total peace of mind and reduces operator involvement with your equipment.



Transportation

With Australia's large continent size and vast distances, continual development of transportation infrastructure is required to link together our remote areas and rapidly growing cities.

For new roads, railways, ports and airports, or the ongoing maintenance of existing infrastructure, water plays an important role in each project.

- ◆ Desalination plants for construction water and potable water supply
- ◆ Clarification plants for heavy metal contaminated ground water seepage in tunnels
- ◆ Filtration plants to remove suspended solids from construction wastewater
- ◆ pH adjustment plants for treatment of construction wastewater
- ◆ Sewage pumping and treatment plants for ports, airports and construction camps
- ◆ Oil water separators and dissolved air flotation plants for wash bays and industrial process wastewater

Building Services

The efficient, safe and compliant delivery of potable water and treatment of wastewater is paramount for commercial or private buildings.

With an extensive product range and expert technical support, you can be confident partnering with MAK Water to provide the best possible solution for your building project.

- ◆ Water softening plants for potable, kitchen or industrial uses
- ◆ Desalination or filtration plants for potable water supply
- ◆ Demineralised water plants for boilers, cooling towers and industrial machinery
- ◆ Ultrafiltration plants for greywater recycling
- ◆ Packaged sewage pumping stations for sewage collection networks
- ◆ Oil water separators and dissolved air flotation plants for trade waste
- ◆ Pumping solutions for potable and fire water
- ◆ Reverse osmosis plants to supply AS/NZS 4187:2014 complaint water for reprocessing of reusable medical devices in hospitals

Defence

The Australian Defence Force plays an important role in defending Australia and its national interests and requires secure and reliable infrastructure to support the activities of over 90,000 personnel across all states and territories.

MAK Water understands that sometimes these solutions require an immediate response and very short delivery timeline. We have experience meeting and exceeding these requirements.

- ◆ Potable water and sewage treatment plants for bases, training facilities and temporary camps
- ◆ Oil water separators and dissolved air flotation plants for vehicle wash bays
- ◆ Packaged sewage pumping stations for sewage collection networks
- ◆ Pumping solutions for potable and fire water
- ◆ Hire of water and wastewater treatment plants for short-term requirements or emergency response

Utilities

Public and private sector utilities own and operate infrastructure to provide valuable water, electricity and gas services to consumers throughout Australia.

When the right technical solution is required, with minimal downtime, you can rely on MAK Water's experienced in-house design and engineering team to deliver a cost-effective and reliable solution.

- ◆ Decentralised potable water and sewage treatment plants for urban developments and remote communities
- ◆ Demineralised water plants for boilers and cooling towers and evaporative water
- ◆ Treatment of compressor station wastewater for discharge
- ◆ Pumping solutions for potable, sewage or fire water

Solutions

BRACKISH WATER REVERSE OSMOSIS

Treat brackish ground, surface or industrial water to achieve potable water quality. Standard process includes pre-treatment, RO desalination and a clean-in-place (CIP) system for membrane cleaning. Add additional treatment steps as required.



SEA WATER REVERSE OSMOSIS

Treat sea water or high salinity ground water to achieve potable water quality. Standard process includes pre-treatment, RO desalination, auto flushing and a clean-in-place (CIP) system for membrane cleaning. Add additional treatment steps as required.



GRAVITY CLARIFICATION

Clean water prior to reuse, or discharge to the sewer or environment to minimise the use of potable water or water supply while protecting users and the environment from contaminants in the waste stream. Compliant with local Council, DEHP, DAFF and OH&S requirements.



WASTEWATER / SEWAGE MOVING BED BIOREACTOR

Treat sewage to achieve Class C effluent for reuse in "low risk" applications, or spray field disposal. Standard process includes screening, biological degradation, clarification and sterilisation. With the optional Class A module, reuse in "medium risk" applications is possible.



WASTEWATER / SEWAGE MEMBRANE BIOREACTOR

Treat sewage to achieve Class A+ effluent for reuse in "high risk" applications. Standard process includes screening, biological degradation, ultrafiltration and sterilisation. Add additional treatment steps, such as enhanced nutrient removal, as required.



WORKSHOPS / WASHBAYS OIL WATER SEPARATOR

Remove free floating hydrocarbons (diesel, hydraulic fluid, oil) and heavier solids from wastewater (prior to discharge) for any wash bay where hydrocarbons are present. Add additional treatment steps for reuse as required.



MULTIMEDIA FILTRATION

Treat ground, surface, storm and waste water with suspended solids to achieve potable or process water. Standard process includes auto-backwashing multimedia filtration. Add additional filtration media and other treatment steps, such as sterilisation or pH correction, as required.



DISSOLVED AIR FLOTATION

Counter-current system designed to achieve maximum treatment efficiency in a compact footprint. Removes a variety of contaminants to meet trade waste or reuse requirements.



WATER STERILISATION

Automatically maintain the correct amount of free chlorine in a potable water storage tank, or use ultraviolet sterilisation to disinfect water, in accordance with Australian Drinking Water Guidelines.





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Client Services

MAK Water are packaged plant specialists, providing industrial waste water, sewage and water treatment solutions in Australia and overseas.

For more than 20 years, our solutions have been helping clients achieve cleaner water solutions that are both cost-effective and regulatory compliant.

MAK Water offers customised water management systems, owns a substantial hire fleet, and provides service and maintenance for all types of water and wastewater treatment systems. A wide variety of consumables and chemicals for ongoing system performance and a complete range of standard products are also available.

MAK Water has built a reputation for delivering superior service and high performing systems, enabling clients to reduce operating costs and extend equipment life-cycles.

- ◆ Design
- ◆ Project Management
- ◆ Procurement
- ◆ Manufacturing
- ◆ Installation
- ◆ Commissioning
- ◆ Operation
- ◆ Service and Maintenance
- ◆ Consumables
- ◆ Spare Parts
- ◆ Equipment Hire