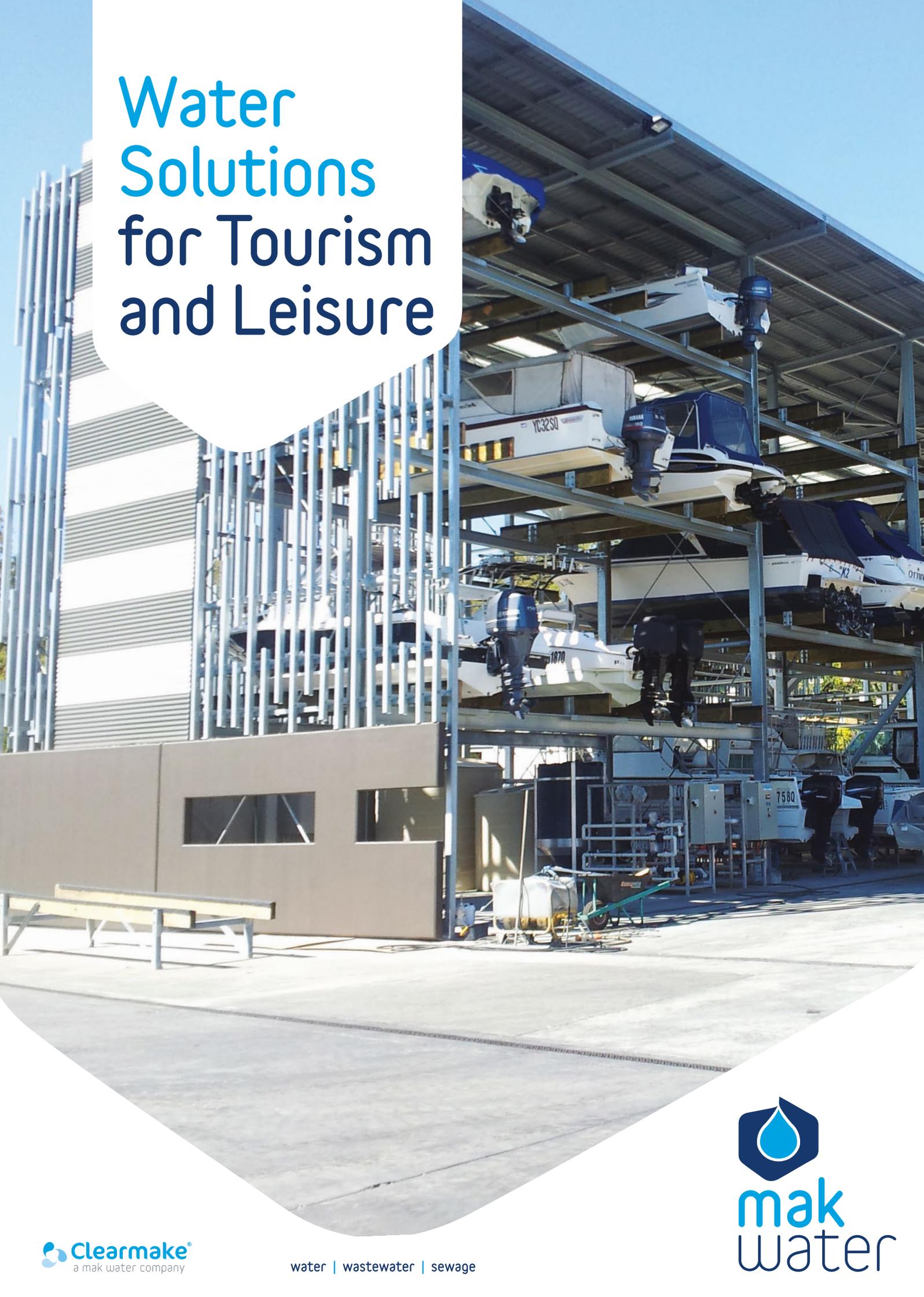


# Water Solutions for Tourism and Leisure



# Smart Water Solutions

MAK Water's experience in the tourism and leisure industry is as diverse as the sector itself, with an emphasis on achieving successful and reliable water, wastewater and sewage solutions and developing long-term relationships. Our clients include operators of holiday parks, resorts and hotels, event centres, golf courses, nature parks and marinas.

Considering the remote nature of many of Australia's holiday destinations, not all operators have access to amenities such as safe drinking water and sewage treatment facilities. Savings can also be achieved by recycling or reusing treated water. MAK Water has provided solutions as varied as delivering drinking water and treating sewage for holiday parks with no access to sewage or potable water networks, desalination plants for golf courses with limited access to fresh water, and the design and installation of water softening and demineralisation plants for hotels with water hardness or scaling issues, amongst many others.

## How can we help you?

From drinking water, to sewage and wastewater treatment, MAK Water's wide range of designs means we can meet all your water, sewage and wastewater treatment requirements. MAK Water takes a consultative approach to solving our client's water problems; you can rely on us for smart advice.

### WATER TREATMENT

- ◆ Potable/drinking water treatment plants, treating ground, surface or sea water
- ◆ Process/industrial water treatment plants, treating ground, surface or sea water
- ◆ Pumping and storage solutions for potable, process or fire water
- ◆ Monitoring and testing for compliance with Australian Drinking Water Guidelines (ADWG) or site specific requirements

### SEWAGE TREATMENT

- ◆ Sewage treatment plants for compliant discharge or onsite recycling or reuse
- ◆ Pumping and storage solutions for sewage collection networks
- ◆ Monitoring and testing for compliance with regulatory bodies

**When assessing site specific requirements, MAK Water takes a holistic approach to ensuring long term sustainability and efficiency, considering factors such as:**

- ◆ Implications of high season and low season demands
- ◆ Fit-for-purpose technology selection
- ◆ Capital and operational costs
- ◆ Environmental impact
- ◆ Local operator skill and availability of ongoing support



### WHY MAK WATER?

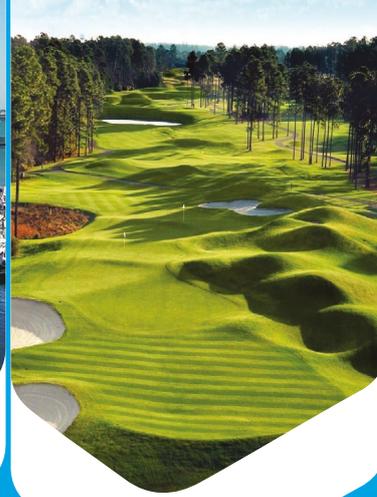
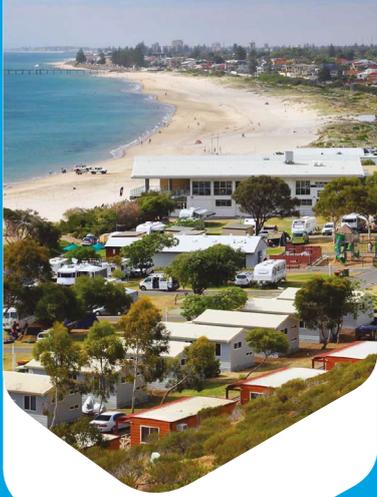
- ◆ Smart technology selection and expert process advice
- ◆ Experienced
- ◆ Equipment reliability
- ◆ Flexible solutions
- ◆ Innovative designs
- ◆ End to end solutions
- ◆ Regional/remote system specialists

### INDUSTRIAL WASTE WATER TREATMENT

- ◆ Wash-down wastewater treatment for compliant discharge or onsite recycling or reuse
- ◆ Process/industrial wastewater treatment plants for compliant discharge or onsite recycling or reuse

### SERVICE, MAINTENANCE AND OPERATIONS

- ◆ Facility management of water treatment and waste disposal assets
- ◆ Operation and management of water treatment assets
- ◆ Maintenance and service of water assets



## Holiday Parks and Resorts

Considering the remote nature of many of Australia's holiday destinations, not all holiday parks and resorts have access to amenities such as safe drinking water and sewage treatment facilities.

Whether it be a remote island resort, a secluded coastal caravan park or a remote getaway in the outback, MAK Water has a vast amount of experience providing efficient and reliable water and treatment facilities.

Typical applications include:

- ◆ Desalination or filtration plants for potable/drinking water
- ◆ Sterilisation systems to maintain safe water storage and distribution
- ◆ Water softening plants for potable/drinking or industrial uses
- ◆ Demineralised water plants for boilers, cooling towers and kitchens
- ◆ Sewage treatment plants for discharge or onsite reuse
- ◆ Packaged sewage pumping stations for sewage networks

## Marinas

Australian marinas are fortunate enough to enjoy some of the most idyllic coastal locations in the world. As such, it is imperative to consider environmental impacts of day to day activities and ensure waterways are not put at risk.

Wastewater generated in a marina environment is very specific in nature; MAK Water has a wealth of experience designing plants that provide optimal wastewater treatment solutions.

Typical applications include:

- ◆ Clarification for heavy metal contamination from anti-fouling
- ◆ Filtration to remove suspended solids loading from general boat washing
- ◆ Oil water separators and dissolved air flotation plants for hydrocarbon removal

## Golf Courses and Nature Parks

Water is such an important resource to a golf course and with water restrictions common-place, security of a sustainable, good quality water source is paramount for the optimal operation of your golf club.

Whether it is sea water or brackish water desalination, filtration for the removal of suspended solids, or sewer mining to treat wastewater to a level that it can be reused, MAK Water has the expertise to deliver a cost-effective and reliable solution.

Typical applications include:

- ◆ Desalination plants for fresh irrigation water supply
- ◆ Filtration and sterilisation plants for recycled water
- ◆ Media filtration and ultrafiltration plants to remove suspended solids for vehicle wash-downs

## Hotels and Event Centres

Clean water is a critical part of the operation of any hotel facility. Whether it be a remote tourist facility or higher customer expectations, water and wastewater treatment infrastructure is an integral part of any hotel development.

MAK Water offer a full suite of services from design and construction of water, sewage and wastewater treatment plants to service, maintenance and operations.

Typical applications include:

- ◆ Potable/drinking water and sewage treatment solutions
- ◆ Demineralised and softened water for commercial kitchens, boilers and cooling towers

# 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.



## 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.



## 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.



## WORKSHOPS / WASH BAYS 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 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.



## 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.



## ULTRAFILTRATION

Treat ground, surface, storm and waste water to achieve ultra-clear filtrate that is free of viruses and bacteria. Standard process includes pre-filtration, ultrafiltration and automated membrane cleaning systems. Add additional treatment steps as required.



## 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