

CASE STUDY



PROJECT WASTEWATER TREATMENT FOR CAMPGROUND

PRODUCT Biocombi Treatment Plant (BCTP)

INDUSTRY Tourism and Leisure

LOCATION Cape Conran, Victoria

BACKGROUND

Parks Victoria required a modern wastewater treatment solution for Cape Conran Coastal Park to replace ageing septic tank infrastructure and meet current environmental regulations. The existing assets created compliance, maintenance and environmental risks across the campground and visitor facilities. A sustainable, long-term wastewater treatment and effluent reuse solution was needed to support future park operations and growing visitor demand.

SOLUTION

MAK Water worked with Parks Victoria's head consultant to refine the design brief and select fit-for-purpose equipment. The proposed solution moved away from the traditional rotating biological contactor and humus tank arrangement, simplifying operation while meeting the required environmental standards. Real-world Biocombi installations were used to demonstrate the technology and support a process guarantee. The compact package plant was designed for straightforward maintenance and remote operation in a harsh coastal environment.

MAK WATER KEY SOLUTIONS

- MITA Biocombi Treatment Plant (BCTP) BC20/2 combining rotating biological contactor treatment and cloth media filtration in a single compact skid
- Treatment of septic tank supernatant from a distributed campground sewer network, rather than conventional raw sewage treatment
- Integrated wastewater recycling treatment incorporating biological treatment, automated solids management and cartridge filtration, with UV disinfection supplied by others for subsurface irrigation reuse
- Marine-grade C5M corrosion protection and remote operation capability suited to the coastal environment



RESULTS AND BENEFITS

- **Sustainability.** Effluent reuse through subsurface irrigation, reducing environmental impact.
- **Regulatory compliance.** Delivered advanced biological treatment and filtration as part of a modern wastewater treatment plant to meet environmental requirements.
- **Operational efficiency.** Simplified treatment process with easier maintenance for park staff
- **Cost savings.** Removed the need for a humus tank and civil infrastructure costs.
- **Proven treatment technology.** Drew on established European Biocombi installations to demonstrate performance and provide a process guarantee not available from the previous RBC and humus tank concept.

