

CASE STUDY



PROJECT TRAIN GRAFFITI WASHBAY RECYCLING
PRODUCT Dissolved Air Flotation (DAF), Multimedia Filtration (MMF)
INDUSTRY Infrastructure and Urban Development
LOCATION Calder Park, VIC

BACKGROUND

A major rail network operator faced escalating costs due to increasing water usage for graffiti removal from trains. As urban development and population density rise, the need for high-capacity sustainable transport is greater than ever, yet train cleanliness remains a daily visual barometer of maintenance standards.

The operator sought to recycle graffiti washbay wastewater to reduce potable water demand, meet Australian Recycled Water Guidelines and enhance overall sustainability.

SOLUTION

MAK Water partnered with the facility management team to deliver a tailored train wash water recycling plant. We refined an existing design by integrating Dissolved Air Flotation (DAF) for efficient removal of paints, greases and solids, Multimedia Filtration (MMF) to polish and clarify the recycled water and optimised chemical dosing and disinfection.

MAK WATER KEY SOLUTIONS

- Optimised pretreatment chemical dosing systems for effective contaminant (Fat, Oil and Grease) FOG, paints, Suspended Solids (SS) removal
- Containerised plant room with ClearAccess™ Remote Monitoring and Control enabling remote support from MAK Water's technicians
- Turnkey custom-packaged 1,500 L/hr plant: controls, instrumentation, tanks, on-site delivery, installation and full documentation compliant to heavy rail requirements

RESULTS AND BENEFITS

- **Sustainability.** Delivered fit-for-purpose recycled water for train washbay reuse, significantly reducing potable water demand
- **Social and environmental benefit.** Assists in maintaining train cleanliness, bolstering public confidence and encouraging public transport use.
- **Operational efficiency.** Plant layout optimised for straightforward day-to-day operations and preventative maintenance
- **Local service and support.** MAK Water's technicians based locally to provide regular preventative maintenance and fast support when needed.



Dissolved Air Flotation (DAF)



Containerised plant room with ClearAccess™ Remote Monitoring