

CASE STUDY

PROJECT STORMWATER TREATMENT FOR RECYCLING

PRODUCT Lamella Clarifier (LC) and Multimedia Filtration (MMF)

INDUSTRY Manufacturing

LOCATION Queensland



BACKGROUND

A metal recycler was facing regulatory challenges due to non-compliant stormwater discharge, putting the site's operations at risk. The client required an effective stormwater treatment solution that ensured compliance with discharge regulations.

SOLUTION

MAK Water worked with the client to help define achievable discharge limits in collaboration with the EPA to develop a tailored treatment system that met regulatory requirements. By understanding the site's specific needs, we designed and supplied a comprehensive solution to achieve compliant stormwater discharge. Our expertise in stormwater treatment allowed us to integrate a robust, cost-effective, and sustainable system that ensures long-term operational reliability.

MAK WATER KEY SOLUTIONS

- **Pre-treatment:** Implemented an Oil Water Separator (OWS) to effectively reduce oil and grease content.
- **Primary Clarification:** Installed a frame-mounted Lamella Clarifier (LC) to remove solids and reduce heavy metals.
- **Media Filtration:** Utilised a containerised (1 x 40') Multimedia Filtration (MMF) plant for residual solids removal and further heavy metal reduction.
- **Capacity:** Designed for a treatment throughput of 7.0 L/sec (25 m³/hr), ensuring robust site operations



MAK Water Lamella Clarifier installed onsite

RESULTS AND BENEFITS

- **Compliance:** Achieved full compliance with EPA discharge limits, mitigating the risk of fines and regulatory action.
- **Operational Efficiency:** Ensured uninterrupted site operations with no further compliance issues.
- **Cost Optimisation:** Reduced operational expenditure through an automatic polymer makeup system (ASP), minimising manual handling and improving efficiency.

By delivering a fit-for-purpose stormwater treatment solution, MAK Water has enabled the client to achieve regulatory compliance while supporting sustainable site operations.



Internal view of the containerised MMF plant