

# Cascade Separator™

Broadlands Drive, Foster Park Car Park



Selwyn District has recently undertaken a significant project to enhance stormwater management at Foster Park, one of the largest sports and recreation parks in the district. As part of this effort, a CS4 Cascade Separator™ was installed in the carpark to handle stormwater flows of up to 51 litres per second.

This installation represents a key advancement in stormwater infrastructure, ensuring more effective water quality management and reducing environmental impacts on the surrounding area.

Foster Park, combined with Rolleston College and the Selwyn Aquatic Centre, forms one of New Zealand's most comprehensive hubs for education, sports, and community activities. Managing stormwater effectively in such a high-traffic area is essential to maintaining both the functionality of the facilities and the health of the surrounding environment.

**Solution and Reasoning:** The Cascade Separator™ was selected for this project due to its advanced capabilities in treating stormwater runoff, particularly in environments where space is limited and high performance is required. Its unique design and features make it an ideal choice for the following reasons;

**Superior Sediment Capture and Retention:** The Cascade Separator™ excels at removing sediment, hydrocarbons, litter, and debris from stormwater, contributing to better water quality.

**Innovative Design:** The system utilizes opposing vortices for enhanced particle settling, ensuring effective separation of contaminants. The inclusion of a specially designed skirt minimises turbulence, preventing the resuspension of trapped pollutants during high-flow events.

**High Flow Rate Management:** Despite its compact footprint, the Cascade Separator™ can handle substantial flow rates, making it both efficient and space-saving—key for urban and recreational areas like Foster Park where available space can often be a constraint.

**Environmental and Cost Benefits:** Its efficient operation not only reduces pollutants from stormwater runoff but also delivers a cost-effective solution for the district. By choosing the Cascade Separator™, Selwyn District is ensuring long-term sustainability and environmental protection for one of its most important recreational facilities.

