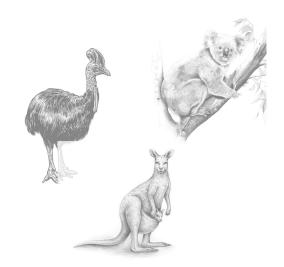


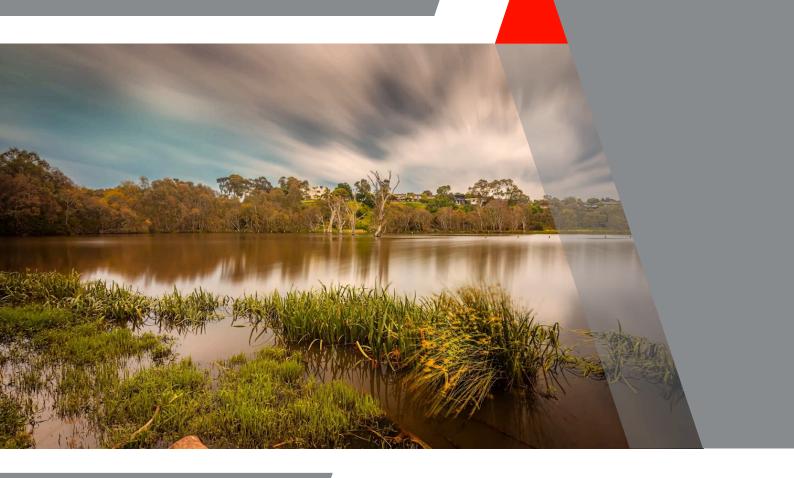
CASE STUDY

NATURE SERIES

HUMEFILTER®UPT3000 STORMWATER SYSTEM



SUSTAINABLE STORMWATER SOLUTIONS FOR NATURE



ISSUED BY HUMES



HumeFilter®UPT3000



Project Background

The HumeFilter UPT3000 system was developed to meet complex stormwater treatment needs on constrained urban sites. This particular unit was the first to be supplied and installed for a Victorian LGA, who also became the asset owners. Designed for installation beneath roads and in areas with tight spaces or invert levels, the HumeFilter offers a compact, high-performance solution with minimal disruption. Its triple-stage filtration system improves runoff quality by targeting sediment, nutrients and other pollutants, helping deliver a reliable and environmentally responsible outcome.

Why Precast?

Precast construction provided major benefits, including reduced time on site, improved safety and minimal environmental disruption. With limited space and no allowance for long-term excavation, precast enabled a fast and low-impact install. A key challenge was the 50mm fall between inlet and outlet, well below the standard 150mm. Humes modified the internal stainless steel insert to suit, a market first solution. The unit also accommodated a 35 degree horizontal pipe angle, demonstrating its versatility for complex site layouts.

Product Capabilities

The UPT3000 unit is designed for tertiary stormwater treatment, and was the first device of its kind to be verified by Stormwater Australia under their field evaluation pathway - the most stringent testing protocol in Australia. It was manufactured using 50 MPa concrete with 25% flyash cementitious content replacement, achieving a 50 year design life in accordance with AS3600. Precast components were installed in under a day, with the full process completed over two days. Humes met the required 12-14 week lead time, and two Humes representatives were on-site throughout installation to support a smooth delivery.

Sustainability Focus

The use of 25% flyash reduced embodied carbon by approximately 12%, compared to a standard 50 MPa mix. Precasting the unit off-site also reduced waste, noise and disruption to the surrounding environment, while ensuring consistent quality. These measures reflect Humes' broader commitment to improving water quality, lowering carbon impacts and supporting resilient infrastructure for future generations.

Environmental Outcomes

The installation represents a significant step forward in sustainable stormwater management, demonstrating how precast systems like the HumeFilter can deliver environmental performance without compromising constructability. The project drew strong interest from other councils and designers seeking innovative, space-efficient and low-impact treatment solutions. This installation reinforces Humes' ongoing leadership in sustainable stormwater solutions, with increasing demand for space-efficient, environmentally conscious infrastructure.







