

# StormFilter™

SandFilter Retrofit with StormFilter™



Stormwater360 retrofit an existing box culvert (two adjacent chambers) sand filter at Luke St, south of Otahuhu Creek on SH1.

The Auckland Motorway Alliance (AMA) monitors, maintains and operates the highest concentration of stormwater management assets of any asset network in New Zealand. Within the network, an existing sand filter located in Luke Street, Ōtāhuhu, Auckland, was identified as being unsafe and an inefficient stormwater treatment device.

Located on a busy stretch of SH1, the current system required frequent maintenance, was difficult to maintain, subject to dangerous gas build-up and required significant traffic management for maintenance activities. This resulted in the system not being able to be maintained on a regular basis and an increased overflow of untreated stormwater into the Tamaki Estuary.

The AMA approached Stormwater360 to discuss options to reconfigure the sand filter and improve the current environmental and health & safety risks.

Stormwater360 proposed to retrofit the sand filter with StormFilter™ cartridges. The design team was able to install 27 x 69cm ZPG StormFilter™ cartridges inside one of the existing sand filter vaults, greatly reducing costs. The ZPG media used in the cartridges is a multi-purpose proprietary filter media approved by the Auckland Council for highly trafficked sites or sites with high metal loadings. The area that needed to be treated was approx. 8000m<sup>2</sup> of impervious motorway and the off-ramp.

The outcomes from retrofitting the existing sand filter with a StormFilter™ vault. It substantially improved the quality of water discharge, improved operation procedures, reduced health and safety risks, and a significant reduction in maintenance costs.

