

11 October 2016

Stormwater360 New Zealand  
PO Box 302 890  
North Harbour Auckland

Attn: Mike Hannah

Dear Mr Hannah

**Re: Product Acceptance – Stormwater360 Stormfilter®**

**Effective Date:** 11 October 2016  
**Expiry Date:** 11 October 2021

This letter sets out Auckland Council's conditional acceptance for vesting of the Stormwater360 - Stormfilter. The acceptance is valid for 5 years, at which time the acceptance will be re-assessed. The acceptance is based on the following application documents:

- Stormwater360- Stormfilter, Auckland Council New Product Approval Document, dated May 2016.
- Maintenance cost estimation spreadsheet, September 2016
- Email correspondence, September 2016

This acceptance for vesting as a public asset follows the Interim Proprietary Device Evaluation as specified in "Stormwater360 Stormfilter, Interim Proprietary Device Evaluation Part 1 – Air, Land and Water Plan Evaluation for treatment quality, 2015".

The details and conditions of the product acceptance are as follows:

**Product / Materials:** **Stormwater360 Stormfilter®**  
The StormFilter® is an underground precast manhole or vault that houses passive siphon-actuated, radial-flow media-filled filter cartridges. The filter cartridges are rechargeable and incorporate a self-actuated surface cleaning mechanism purported to increase the effective life of the filter media and to reduce the accumulation of material on the cartridge surface. Each radial flow filter cartridge operates at a predetermined flow rate through the use of an integrated flow control orifice located within each filter cartridge outlet manifold. Stormwater enters the system and is percolated through the cartridges which trap particulates and remove pollutants. Two particular media, Perlite and ZPG™, are considered in analysis of device performance. Three different cartridge heights are available: 30 cm, 46 cm, and 69 cm, allowing for design to suit a range of surface area and hydraulic drop constraints.

**Acceptance Process:** Conditional Acceptance confirms that Auckland Council has assessed the overall system as being suitable for use for public stormwater systems, within certain conditions. Evaluation of the suitability of this option for a specific project is required for each proposed application on a case by case basis. The following information will be required for each evaluation:

- Lifecycle costs;
- Maintenance frequency and cost (based on a minimum of annual cleans);
- Asset life and renewal cost;
- Designer statement on the safe installation, use, maintenance and disposal implications for the asset;
- Assumptions for the sourcing and disposal of cartridge media, including resilience of supply.

**Standards:**

As specified in “The stormwater Management Stormfilter® Specification” September 2009, submitted with application document. Standards include, but are not limited to:

- ABS manifold pipe and fittings AS/NZS 3518:2013
- PVC manifold pipe and fittings AS/NZS 1260/2009
- Precast concrete manhole or rectangular vault conforming to NZS 3103:2006, NZS3109:1997, NZS3114:1987 and AS/NZS4058:2007

**Manufacturer:**

All internal components shall be provided by Stormwater360.

<p>Approved for:</p>	<ul style="list-style-type: none"> <li>▪ Use in Stormwater Infrastructure installations across the Auckland region for assets to be vested to Auckland Council where: <ul style="list-style-type: none"> <li>○ Best Practicable Option (BPO) analysis proves that Council’s preferred management approach of using water sensitive design and green infrastructure is not feasible, or not cost-effective.</li> <li>○ an appropriate maintenance mechanism and programme is provided to retain the products design functionality and maximise its design life</li> <li>○ roads are classified as non-arterial local roads/street (as defined in ATCOP)</li> <li>○ coarse sediment pre-treatment of the stormwater runoff is used prior to the runoff entering the Stormfilter, where feasible</li> <li>○ soil bearing capacity is checked by a suitably qualified geotechnical engineer</li> </ul> </li> </ul>
<p>Not approved for:</p>	<ul style="list-style-type: none"> <li>▪ Use in arterial or collector roads (unless specifically authorised by Auckland Transport or NZTA)</li> <li>▪ Use as a stormwater detention device</li> <li>▪ Location within trafficked lanes unless the access cover is specifically designed for traffic loading</li> </ul>
<p>Comments:</p>	<ul style="list-style-type: none"> <li>▪ All applications must be in accordance with: <ul style="list-style-type: none"> <li>○ Auckland Council Code of Practice for Land Development and Subdivision,</li> <li>○ Stormwater treatment device sizing (current document of TP10 or GD01),</li> <li>○ Current regulatory framework: Auckland Unitary Plan.</li> <li>○ National Policy Statement - Freshwater 2014</li> </ul> </li> <li>▪ Design, operation and maintenance criteria in accordance with “<i>Stormwater360 Stormfilter, Interim Proprietary Device Evaluation Part 1 – Air, Land and Water Plan Evaluation for treatment quality</i>”, 2015.</li> </ul>

Please note that the acceptance of this product by Auckland Council does not constitute endorsement. This letter may not be used for advertising purposes.

The acceptance pertains to the product as described in Stormwater360 application and the supporting documentation. Auckland Council reserves the right to review and revoke approvals at any time. Auckland Council must be notified immediately of any change in the product, including but not limited to: name, design and recommended use.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'Sarah Sinclair', written in a cursive style.

**Sarah Sinclair**  
Chief Engineer  
Engineering & Technical Services  
Infrastructure & Environmental Service Division  
AUCKLAND COUNCIL