



**PATENT  
PROTECTED**



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# STORMWATER SEDIMENT SOLUTION

The most cost-effective sediment capture & retention device

**SAFL Baffle is a fraction of the cost of hydro-dynamic separators with 10 times the flow rate**

## Typical comparison found on over 1,000 projects

SAFL Baffle	Hydrodynamic Separators
<p>Cost: \$5,200</p> <p>TSS Removal Efficiency: 84%</p> <p>By-Pass Flow Rate: 80 CFS</p> <p><b>Operates by stopping the natural vortex</b></p> <p><i>The SAFL Baffle stops the natural vortex that is created in standard sump structures, dissipating hydro energy and causing sediment to drop to the bottom of the sump. As sediment collects in the bottom, the SAFL Baffle's design prevents vortex scouring and resuspension, retaining all previously captured sediment, even during high-flow storm events <b>up to 80 cubic feet per second.</b></i></p>	<p>Cost: \$24,000</p> <p>TSS Removal Efficiency: 85%</p> <p>By-Pass Flow Rate: 8 CFS</p> <p><b>Operates by creating a vortex</b></p> <p><i>Hydro Dynamic Separators operate with flows between <b>2 to 8 cubic feet per second.</b> At greater flows, stormwater bypasses the device and <b>does not capture any sediment.</b></i></p> <p><i>Internal plastic parts are prone to vibrate and break. SAFL Baffles can be retrofitted in the existing structure for a cost-effective replacement.</i></p>

**SAFL Baffle installs in standard sump structures**



**All parts fit through a standard manhole for new or retrofit projects**





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8,715,507B2  
8,663,466B2  
9,506,237B2  
CA2742207



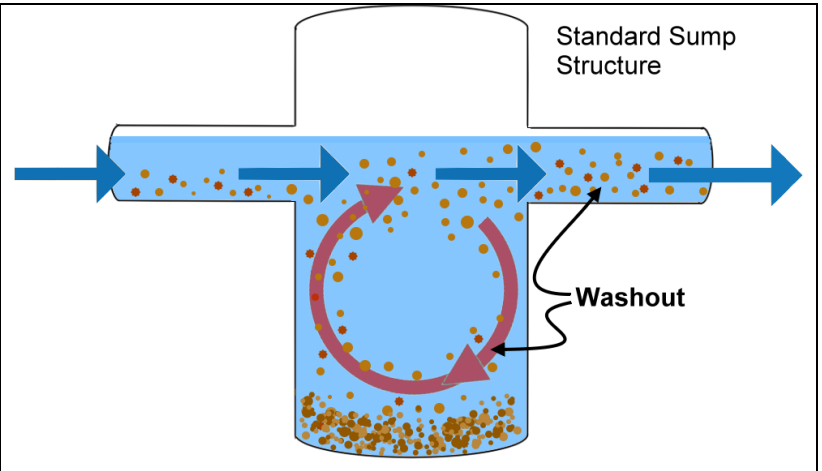
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## The Problem:

Standard sump structures alone can capture up to 30%\* TSS

The problem is “Washout”. During high flow events, vortex action scours the sump clean, washing out previously captured sediment.

Sediment devices must be tested for both Capture and Retention (Washout) or the overall performance of the device is unknown.



\* TSS (Total Suspended Solids) percentage is calculated based on sump size, pipe diameters, drainage area & rainfall

## Capture and Retention

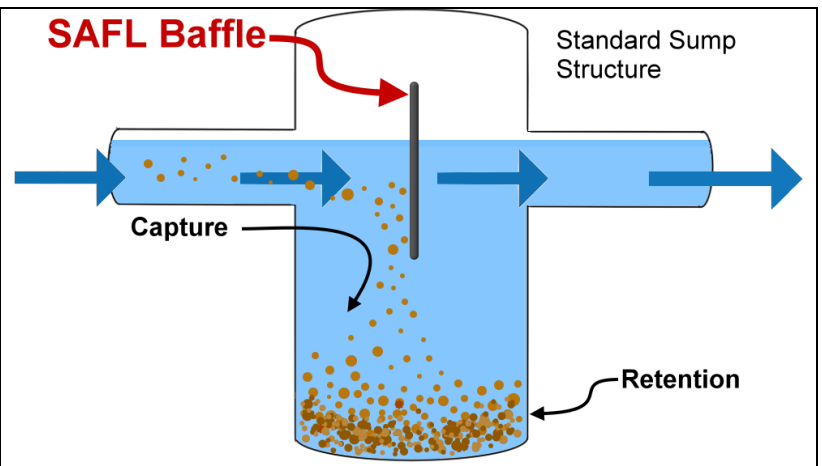
*Both capture and retention, at high flow rates, are required to adequately manage sediment.*

*What good is a sediment capture device, if the previously captured sediment washes out during a heavy storm?*

With the SAFL Baffle installed in a standard sump structure, sediment capture and ability to retain this captured sediment, exceeds 80%

Vortex action is stopped, and **washout does not occur.**

Both capture and retention are required. **The SAFL Baffle provides both.**



**Retrofittable** – Can be installed in existing sump structures with a 24-inch minimum opening.

**View a video demonstration:** [upstreamtechnologies.us/products/safl.shtml](http://upstreamtechnologies.us/products/safl.shtml)

**The SAFL Baffle is a patented device and may not be reproduced.**

US Patents: 8,715,507B2, 8,663,466B2 and US 9,506,237B2 and Canada: # 2742207

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