

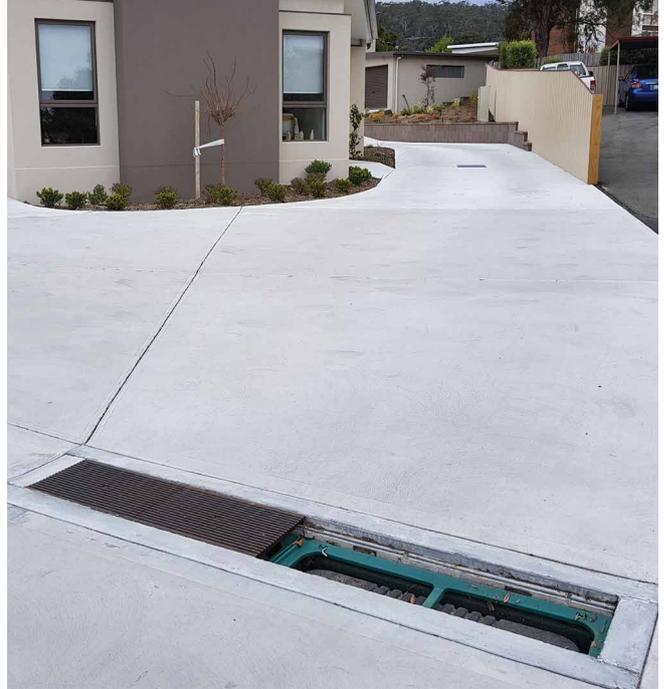
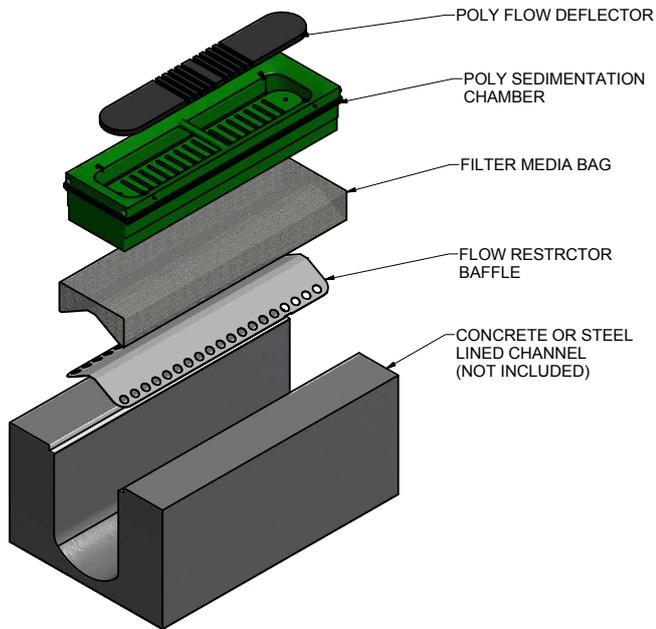
# SPEL Hydrochannel

Stormwater filtration treatment in grated drains



**spel**stormwater  
joy in water

[spel.com.au](http://spel.com.au)



# SPEL HYDROCHANNEL

The Hydrochannel is an insert that can be placed inside a channel grated drain of 300mm wide, and at least 450mm deep. It is designed for areas that would benefit from at source stormwater treatment, which would otherwise be bypassed.

This allows stormwater from high traffic areas (car parks and roads), industrial areas and metal roofs to be cleaned at site level, and then discharged safely to ground or surface water bodies locally.

The SPEL Hydrochannel's modular design means that the stormwater is treated in two steps:

1. Solids and particulates are settled in the first step.
2. Dissolved contaminants are then absorbed in the filter matrix.



# FEATURES

The Hydrochannel filters and binds pollutants like hydrocarbons, heavy metals as well as total phosphorus (TP) and total nitrogen (TN). The pollutants can then be disposed of safely and easily.

- Stormwater treatment of surface levels.
- Gross pollutant sediment, and nutrient capture.
- Insert into 300mm wide channel drain.
- Sites with little CR flat grade.
- No underground vault for cartridges.
- Quick and easy installation and maintenance





## HOW IT WORKS

Water weirs over from the sedimentation chamber and passes down to the filter bag with the filter matrix inside it. Both organic and inorganic contaminants are removed by Adsorption and precipitation. The filtered water then flows within the Channel to the collection point where it can either be re-used or discharged to infiltration.

The initial sedimentation step ensures the long working life of the filter bag, and the granular filter material within it.

The filter is designed to promote an even and homogenous flow distribution within it. Separation of the material is near impossible, by proven and certified design. The pad will need to be replaced at about 5 - 10 years, depending on site conditions.

## TECHNICAL DATA

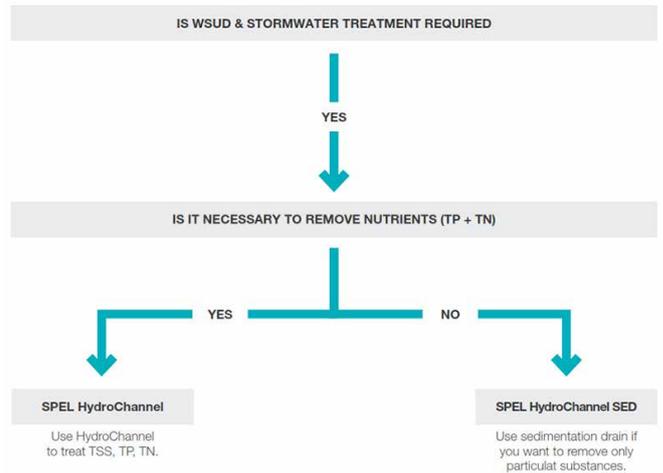
Pollutant	Efficiency
Gross Pollutants (GP)	100%
Total Suspended Solids (TSS)	88%
Total Phosphorus (TP)	69%
Total Nitrogen (TN)	67%
Petroleum Hydrocarbon	0%

\*Contact Spel to confirm approved performance for the project LGA

Module Length:  
1000mm  
Module Width:  
300mm  
Minimum Depth;  
450mm



## SELECTION GUIDE



### Modular design for ecological line drainage

The innovative modular design is based on a standard 300mm channel & trench grate width.

There is no need to make site specific or bespoke design amendments to the channel drainage runs.

### The modular interior of the Hydrochannel:

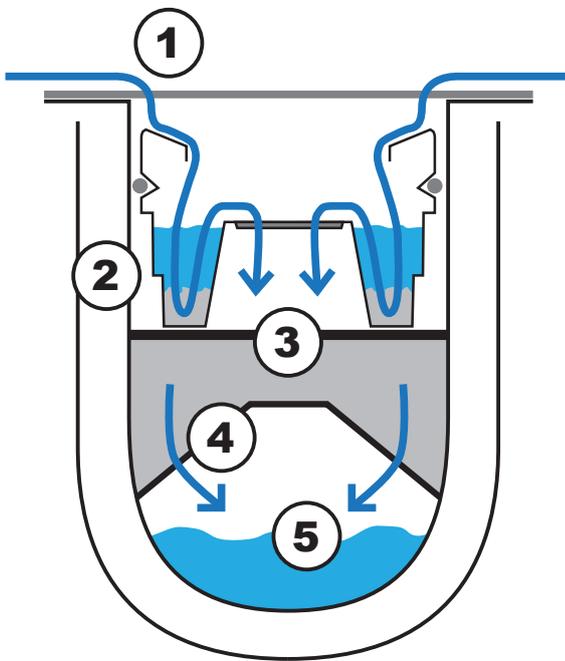
The Sedimentation Chamber removes coarse constituents, such as gravel, leaves and other solids. The rubber seal to the outside ensures no waters can by-pass this chamber within the channel.



### The modular interior of the SPEL Hydrochannel:

- The baffle is placed on the foundation the granular filter bag's where the dissolved pollutants are removed
- The sedimentation box is fixed with four locking pins so no water can pass by the box





### Modular Design

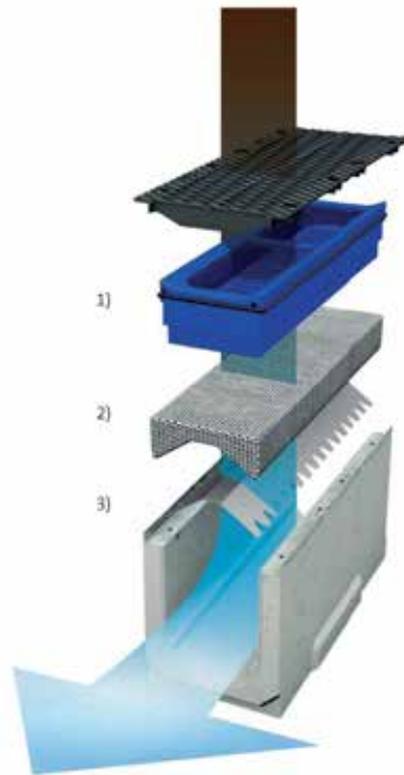
Based on the innovative filtration solution is the concrete nominal width of 300mm. Planners are not required to make any alternations in the drainage plan if they want to treat the water with the Hydrochannel.

The modular interior of the Hydrochannel:

1. The sedimentation box is primary treatment capturing solids such as stones, leaves, and suspended particles on. The rubber lip ensures sealing around the edges – for the reliable differentiation for subsequent filtration.
2. The pretreated rainwater passes through the granular-filter-pad and the organic and inorganic pollutants will be filtered from the water.
3. The filtered water flows over the baffle into the free flow area of the channel and is discharged per normal site requirements.

### Section of the SPEL Hydrochannel:

1. Water comes from the surface to the SPEL Hydrochannel
2. The sedimentation chamber removes coarse solids, such as gravels, chippings, leaves and other solids. The rubber seal ensures a water tight seal is maintained.
3. - 4. The pre-treated water pass through the granular filter bag, and the organic and inorganic pollutants are removed.
5. The filtered water flows over the baffle into the free flow area of the channel. It can then be re-used, or discharged to surface or ground water via infiltration.



# SPEL Hydrochannel

Stormwater filtration treatment in grated drains

<p><b>NSW HEAD OFFICE</b> 100 Silverwater Rd, Silverwater NSW 2128 PO Box 7138, Silverwater NSW 1811 P +61 2 8705 0255 P 1300 773 500   nsw.sales@spel.com.au</p>	<p><b>QLD MAIN OFFICE</b> 130 Sandstone Pl, Parkinson QLD 4115 P +61 7 3271 6960 P 1300 773 500   qld.sales@spel.com.au</p> <p><b>QLD SUNSHINE COAST BRANCH</b> 19-27 Fred Chaplin Circuit, Bells Creek, QLD 4551 P 1300 773 500   qld.sales@spel.com.au</p>	<p><b>VIC &amp; TAS OFFICE</b> 897 Wellington Rd Rowville P +61 3 5274 1336 P 1800 810 139   sales@spel.com.au</p> <p><b>VIC GEELONG BRANCH</b> 70 Technology Close, Corio, P +61 3 5274 1336 P 1800 810 139   sales@spel.com.au</p>
<p><b>SA OFFICE</b> 9 Hampden Road, Mount Barker SA 5251 P 1300 773 500   sales@spel.com.au</p>	<p><b>WA OFFICE</b> 2 Modal Crescent Canning Vale WA 6155 P +61 8 9350 1000 P 1800 335 550   sales@spel.com.au</p>	<p><b>NZ OFFICE AUCKLAND</b> 100 Montgomerie Road Airport Oaks P +64 9 276 9045   sales@spel.com.au</p>
<p><b>NZ OFFICE WANGANUI</b> 43 Heads Road Wanganu New Zealand P +64 6 349 0088   sales@spel.com.au</p>	<p><b>NZ OFFICE WELLINGTON</b> 41 Raiha St Porirua Wellington New Zealand P +64 4 239 6006   sales@spel.com.au</p>	<p><b>PHILIPPINES OFFICE METRO MANILA</b> Unit 2210 Lumiere Residences Pasig Boulevard, Pasig City P +61 2 8705 0255 P 1300 773 500   sales@spel.com.au</p>
<p><b>SINGAPORE OFFICE</b> 512 Chai Chee Lane, #06-04 Bedok Industrial Estate, Singapore 469028 P +61 2 8705 0255 P 1300 773 500   sales@spel.com.au</p>	<p><b>UK OFFICE UNITED KINGDOM</b> Lancaster Rd Shrewsbury SY1 3NQ UK P +44 (0)1743 445200   sales@spel.com.au</p>	<p><b>USA OFFICE CLEVELAND</b> 4548 Industrial Parkway Cleveland, Ohio 44135 P +61 2 8705 0255 P 1300 773 500   sales@spel.com.au</p>



100 Silverwater Rd,  
Silverwater NSW 2128 Australia  
P (02) 8705 0255  
sales@spel.com.au  
[spel.com.au](http://spel.com.au)



SPEL Stormwater accepts no responsibility for any loss or damage resulting from any person acting on this information. The details and dimensions contained in this document may change, please check with SPEL Stormwater for confirmation of current specifications.