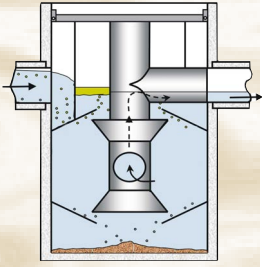


## Downstream Defender®



# London Road / RMA Outfall Works

**Hydro**  
International

## Downstream Defender® Provides Stormwater Treatment for Surrey Heath Borough Council

### Project Profile:

- Protection of environmentally sensitive lake.
- Efficient silt and grit removal required.
- Minimal re-entrainment necessary.
- No power requirement.

### Product Profile:

- Available in a range of standard chamber sizes.
- No power required and no moving parts.
- Resistant to re-entrainment.
- Highly efficient with minimal headloss.
- Inlet and outlet pipes at same level.
- Small footprint.
- Delivered in its own concrete chamber/ready to install.
- Low maintenance.

Hydro supplied a 6 m diameter Downstream Defender® to Surrey Heath Borough Council. The purpose of the Downstream Defender® was to honour an agreement between Surrey Heath Borough Council and the Royal Military Academy to intercept grits and sands from highway and domestic surface water before passing to a petrol interceptor prior to discharge into a nearby lake.

In this application the device was constructed of precast segmental concrete rings with the specialist internal components fabricated in grade 304 stainless steel. The 6 m diameter unit can handle peak flows of over 800 l/s separating out grit and sand down to 75 microns.

The device can be visibly inspected by climbing inside the upper unit/spillway although the rest of the unit is submerged below water level.

Removal of the lid facilitates degritting by gully sucker or submersible slurry pump.

Inspections are carried out approximately every 12 months to check silt build-up, as well as quarterly inspections for debris and blockage. However, with approximately 22 m<sup>3</sup> of effective storage the system requires attention only on a 3-4 yearly interval.

The Downstream Defender® does not require any external power, has no moving parts and therefore, other than periodic emptying, is virtually maintenance free.



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