Richmond Park, London

SuDS used

- *Hydrodynamic vortex separator*

Benefits

- *Pollution protection for Brook as a retrofit / improvement scheme*
- *Enhanced community engagement with the river*
- *Improved ecology in Richmond Park*

1. Location

Richmond Park, London, SW15 5JR

2. Description

A 3m hydrodynamic vortex separator as detailed in Chapter 14 of C753) was installed during July / August 2017 as the first of three projects to be funded by The Coca-Cola Foundation, as part of their "replenish programme". The separator protects the Beverley Brook in Richmond Park from pollution running off from the surrounding, highly urbanised catchment.

The project was initiated and delivered by the South East Rivers Trust, who are one of three catchment based approach (CaBA) partners working alongside Coca-Cola, WWF-UK and The Rivers Trust to help replenish water in the Thames and South East River Basins, for the benefit of both people and wildlife.

A proprietary solution was selected as a plug-and-play retrofit solution that would minimise disruption for users of the park during construction and also ensure that the pre-project appearance and amenity of the park was not affected in any way.

3. Main SuDS components used

Hydrodynamic vortex separator.

4. How it works

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5. Specific project details

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6. Maintenance & operation

Initial estimatations from the overall catchment size (30 Ha) and using an annual sediment load of 0.3m³/ha arising from the mixed urban usage catchment, puts the maintenance interval at 9 months. The manufacturer is working with the South East Rivers Trust to provide on-site inspection of sediment accumulation rates during the first 18-months in operation, following which a site specific maintenance plan can be developed.

The unit can be emptied using a standard vacuum tanker in less than 1-day, which limits the impact on the public and wildlife within the park.

7. Monitoring and evaluation

The South East Rivers Trust intends to engage a masters student to provide monitoring and evaluation of the project.

8. Benefits and achievements

The hydrodynamic separator was installed onto the existing Thames Water surface water drain within Richmond Park. It intercepts run-off from the surrounding very urban South London area. The measure removes road derived sediment and associated contaminants, therefore improving the health of the river and enhancing the local community's engagement with it. The Royal Parks, who are project partners, are excited about the benefits the work will bring to the ecology in Richmond Park.

9. Lessons learnt

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10. Interaction with local authority

The client (South East Rivers Trust) was the key partner throughout the project, negotiating with all parties involved

11. Project details

Construction completed: *August 2017*

Cost: -

Extent: 30 Ha

12. Project team

Funders	• The Coca-Cola Foundation

	• WWF-UK
Clients	• South East Rivers Trust • The Rivers Trust
Designers	• South East Rivers Trust • Hydro International / Hydro-Logic Services Ltd
Contractors	• Kenward Groundworks
Manufacturer	• Hydro International

13. Project images and illustrations

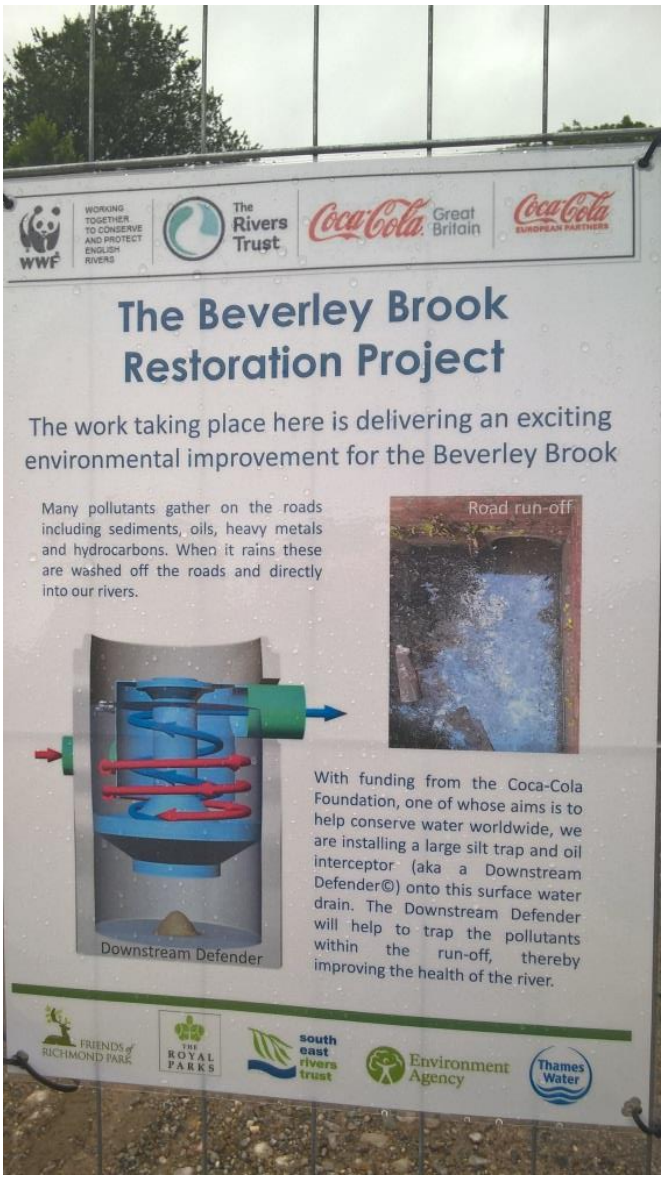

Fig 1: Public Information Sign during construction

Fig 2: Map of Richmond Park

Fig 3: Existing Outfall to Beverley Brook

Fig 4: Beverley Brook (downstream of outfall)