

## Eastways new food production facility includes advanced treatment for surface water runoff

### Project profile

#### Objective

To deliver a best-practice Sustainable Drainage (SuDS) scheme using filtration and separation technologies to meet strict planning and pollutant removal criteria as part of an industrial unit upgrade at a food production facility.

#### Solution

Two Up-Flo™ Filters and one Downstream Defender® units were installed together to meet the Total Suspended Solids (TSS) and metals removals required.

### Product profile

#### Up-Flo™ Filter

The Up-Flo™ Filter is an advanced stormwater treatment solution that combines sedimentation and screening with fluidised bed filtration to deliver exceptional surface water pollution removal.

#### Downstream Defender®

The Downstream Defender® is an advanced hydrodynamic vortex separator for the effective and reliable removal of fine particles, oils and other floatable debris from surface water runoff.

The Eastways project in Witham, Essex, was an existing industrial unit that was being upgraded to include the construction of a new food production facility with internal offices, a new site entrance, and a new vehicle turning area. This project needed a drainage strategy suitable for an industrial site, to control surface water runoff and remove pollution.

The stormwater runoff from the roofs, roads, car parks and ground area could not be infiltrated so needed to be stored within the development site for storms up to a 1 in 100-year event, with an additional allowance for climate change. With no nearby watercourse, the stored runoff will then flow off the site into a public sewer.

The first drainage design put forward for the site was rejected by Essex County Council because the surface water treatment only included one petrol interceptor which did not address the requirements for Total Suspended Solids (TSS) and metals removal. A higher level of treatment was required for the site, and the solution was needed quickly to keep the project on track.



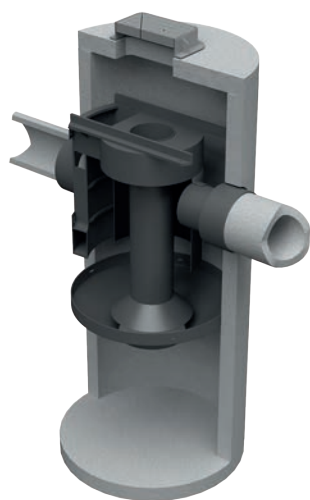
Bell Munro Consulting worked with Hydro International to find a solution. It was agreed that all site runoff was to be via conventional drainage to a public service water sewer and would include Sustainable Drainage Systems (SuDS) in underground storage with limited flows into the public sewer, and in-line control measures to remove pollution from the runoff.

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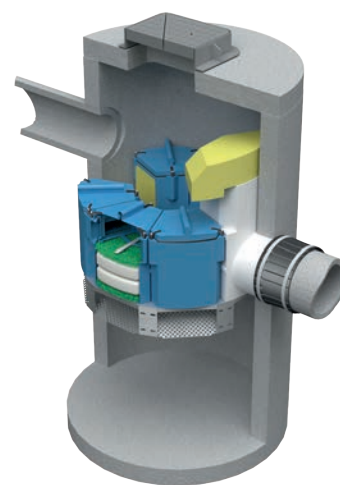
Working together they developed an effective and advanced stormwater treatment solution that was customised to meet site requirements, by combining two 1.2 m Up-Flo™ Filters and one 1.8 m Downstream Defender®. To meet the tight delivery deadline and to keep the project on schedule, the Up-Flo™ Filters and Downstream Defender® separator were supplied in twin wall plastic chambers. The strength of the twin wall chambers meant that there was no need to back fill with concrete and it also made them lighter and easier to move around on site.

**Alan Morris, Associate Civil/ Structural Engineer at Bell Munro Consulting**, said: “Working with Hydro International’s technical team, we were able to provide an advanced treatment solution that **met not only the hydrocarbon pollutant removal**, but also **removed Total Suspended Solids and metals**. The flexibility of material choice for the chamber enabled us to keep to our project schedule.”

The [Downstream Defender®](#) is an advanced hydrodynamic vortex separator that captures and retains coarse and fine sediment, oils and floatables from stormwater runoff, in a small footprint. As compact and low-maintenance stormwater treatment solution, it enables the engineers to deliver effective pollutant removal at a single point in the drainage system.



The [Up-Flo™ Filters](#) provide an advanced stormwater treatment solution that delivers multi-stage, high performance treatment in a small footprint. Each Up-Flo™ Filter combines sedimentation and screening with fluidised bed filtration to deliver surface water pollution removal.



**Phil Collins, Director - Europe Sales for Hydro International** commented: “This project needed some **quick thinking and teamwork** to deliver an effective solution that could be **delivered on a tight turnaround**. The team were able to configure a **bespoke SuDs system** that met requirements and made sure the project didn’t lose momentum.”

## Learn more

To learn more about how the Up-Flo™ Filter or Hydro Biofilter™ can help you to manage water more effectively, visit [hydro-int.com](https://hydro-int.com), search **Up-Flo Filter** or **Hydro Biofilter** online or contact us:

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