



Mono® NOV Provides Stormscreen Protection For Lake District Beauty Spot

The need to quickly improve an existing storm water overflow system has led to United Utilities selecting two Mono Stormscreen units for installation in a CSO overflow chamber in the centre of a Lake District beauty spot at Bowness, close to Lake Windermere. Chosen for their self-powered operation and capability of easy installation, the units screen the storm water flow, before it passes on to a pumping station.

The station's existing screens had previously caused system blockages that posed a threat of subsequent flooding. Looking to install an extra level of screening into the system, United Utilities were impressed by the flow-powered operation and the self-cleaning action offered by the SC1A15064 Mono Stormscreens.

"The Bowness CSO overflow chamber is located under a main road and accessed via a single manhole," says United Utilities. "Although the access was later enlarged, it was important that we could install the equipment quickly and easily through the original manhole. The experience of the Mono personnel in working in such confined areas certainly helped with this.

"There is no power available in the chamber, so the ability to start operating automatically and be powered by the flow was also vital. Since installation the Stormscreens have run continuously for up to ten days at a time during storm conditions without suffering any blockages. They have proved to be very reliable."

The two Stormscreen units have a combined maximum capacity of 1620m³/h. In addition to the screens, Mono supplied and installed stainless steel weir wall mounting frames, Stormscreen cradles, a guide rail system, plus lifting chains and a chain management system.

The Mono Stormscreen has been developed to conform to discharge consent

and AMP 3 guidelines in line with the Environment Agency's strict requirements. Providing an economic solution for storm overflow inlet channels, the Stormscreen combines low maintenance with highly effective screening. It requires no electrical installation work, and combined with its self-cleaning operation this means that running costs are absolutely minimal.

A standard 400mm diameter mesh drum incorporates a paddle wheel fitted with adjustable brushes. As water flows through the channel and into the unit, the mesh drum captures any solids above 6mm in size. The screened flow passing through the unit powers a turbine mounted below the mesh drum, which in turn drives the paddle wheel. As this rotates, the brushes clean the mesh drum and return any solids back into the main flow. An integrated scumboard protrudes into the main flow and deflects large floating solids away from the screen, increasing its self-cleaning capability. The Stormscreen unit can also be supplied with an electrical motor if existing power is readily available.

All the Mono equipment installed at Bowness is designated as suitable for use in a Zone 1 hazardous area. Elongated access ports to the chamber were provided to allow a guide rail system to be installed so that Stormscreens can easily be hauled up for periodic inspection.

Screen Type: **SC1A15064**

Product: **Stormwater**

Combined Capacity: **1620m³/h**



Mono Pumps Ltd
Martin Street, Audenshaw
Manchester, M34 5JA England
T. +44 (0)161 339 9000
E. info@mono-pumps.com
www.mono-pumps.com

Mono® NOV

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