The new Weirflex® from Red Valve is designed specifically to meet the needs of stormwater and combined sewer systems. Acting as an adjustable weir, the valve is infinitely adjustable from a full-port opening to a 98% closure, allowing flow rates of incoming stormwater to be controlled.

An electric motor actuator allows the valve to be operated remotely, and is preferable for large-diameter lines. The motor operates a pinching mechanism which raises a bar beneath the sleeve. This pinching action creates a weir that can easily be adjusted to suit the flow rate desired. The Weirflex® can be operated manually as well with a handwheel and bevel gear. This allows users to maintain a set level over a long period of time, and easily make adjustments to account for seasonal flow changes.

The open-frame design of the Series 53 CSO provides a clear visual reference of valve position and weir height, while saving weight compared to an enclosed-body design.

**Principles of Operation**

As part of the EPA’s nine minimum controls, the Weirflex® reduces stormwater surges and prevents flooding of treatment plants and exceeding their maximum capacity. Used as a flow regulator, the valve maximizes storage capacity within existing collection systems piping.

At the heart of the Weirflex® valve is a tough, elastomer sleeve. When in the open position, the sleeve acts just like another piece of pipe, presenting no obstructions and no changes in the direction of flow. The sleeve is constructed of the highest-quality elastomers to resistant abrasion and corrosion. The Weirflex® features a full-open port that will not limit maximum wet-weather flow.

To regulate stormwater flows, a bar beneath the sleeve is raised to pinch the sleeve from below and create a Weir that can easily and infinitely be adjusted to suit conditions. The Weirflex® can be operated manually where rainfall levels are fairly consistent, or electrically in areas that experience changing weather conditions.