

Stormwater case study

Large-Diameter Influent Flow
Control Valves on California Force Main



A city in California responded to population growth and aging infrastructure with the construction of a new, high-capacity force main for its municipal waste. The force main serves as a backup for the city's existing 40-year-old force main, which runs parallel to the new line.

The city consulted a local engineer who specified Red Valve's Large-Diameter Series 5400 Influent Flow Control Valves. Eleven 36-inch, electrically actuated Series 5400s were purchased for on/off service at the intersection between the two force mains and for throttling control at the entrance to the wastewater treatment plant, located in a neighboring city.

The Series 5400 boasts many advantages for both of these applications. The full-ported elastomer sleeve allows for unrestricted flow when open and provides a bi-directional, droptight seal when closed, making it ideal for on/off service. The valve maintains excellent long-term throttling accuracy, as the sleeve will not corrode upon contact with the untreated, highly solid wastewater. The sleeve contains no cavities or dead space, so smooth, unidirectional flow is maintained.

Closing Sequence of a 5400



Full-port opening



Centerline closure



Drop-tight seal