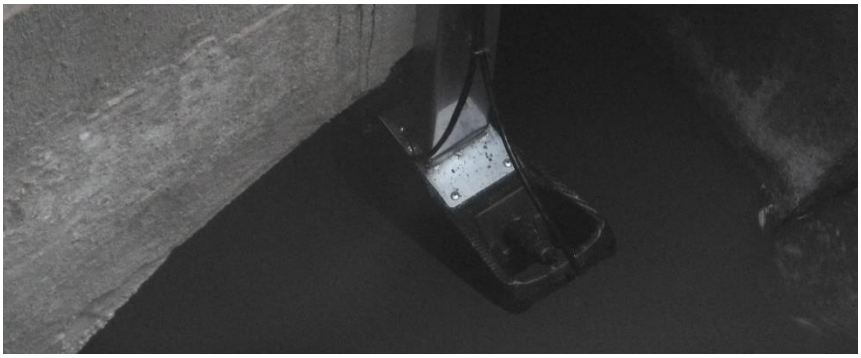
Sewer/Channel Networks Monitoring



CUSTOMER

- Water utility managing a sewer network including a large number of flow monitoring stations transmitting the measured data to a central control system
- Network within the urban center, the surrounding countryside and villages covering more than 890 km^2 and serving nearly 445.000 people

TASK DEFINITION

- Improvement of the accuracy of the actual flow measurement based on a level sensor connected to a PLC (measured level transformed in an approximate flow using a Q/h relation)
- The reliability of the flow measurement system is very important as the remotely calculated flow data is used for monitoring, billing purposes and for inflow or infiltration studies
- Installation without entering the manhole (large H_2S concentration), large collector (DN1500)

SOLUTION

- Installation of RAVEN-EYE® non-contact radar flow meter combined with a radar level transducer connected to the existing system reducing maintenance and operation costs
- RAVEN-EYE® flow meter is directly connected to the system on site (SIEMENS PLC) using Modbus RTU
- Custom made rail mount to lower and fix the sensors to their final position
- Flow calculation made inside the RAVEN-EYE® improving accuracy based on area/velocity flow computing method

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