HWM Global

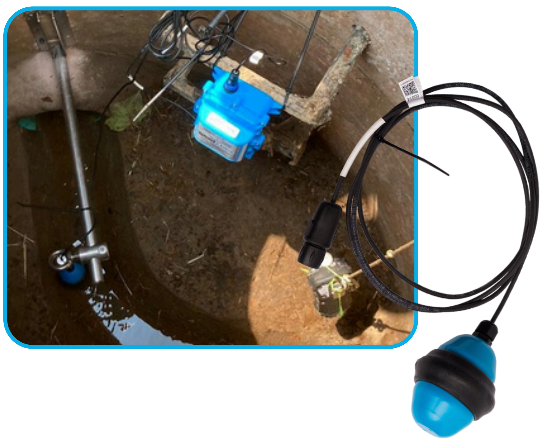
# case study

## Cutting I&I Costs With Affordable Network Insight

HWM Global helps a US Municipality gain critical I&I insight at a fraction of the usual cost by replacing conventional flow meters with multiple low-cost, easily redeployable SpillSens digital float sensors.

**Inflow and Infiltration (I&I) sends unwanted water into wastewater systems causing sewer backups. Traditional surveys using high-accuracy flow meters cost up to $20,000 and take months to deploy, analyse, and redeploy. A US municipality needed a faster, more affordable way to locate entry points and cut treatment costs.**

Inflow and Infiltration (I&I) refers to unwanted water entering the wastewater network. Rising I&I volumes can quickly overwhelm treatment works, causing spills and sewer backups into homes and businesses. To find I&I, the utility relied on high-accuracy open-channel flow meters, but their high cost, long installation times, and lengthy analysis process made it difficult to stay ahead of the problem, increasing operational pressure.



*"For the price of one flow meter, we deployed nine SpillSens systems and got near real-time I&I insight, cutting survey time, focusing maintenance, and reducing treatment costs"*
**US Municipal Utility**

The US Municipal adopted HWM Global's award-winning angle-based sensor 'SpillSens' installed at low-flow level in minutes (5–10). By tracking the rise and fall of sewage and correlating it with rainfall, teams quickly identified I&I entry points and prioritised remediation. For the cost of a single flow meter, they deployed nine SpillSens systems for five years, delivering broad network coverage and near real-time insight. Devices are easily redeployed upstream to narrow problem areas and send SMS/email alarms at pre-set angles to warn operators of backups before spills occur. Data is visualised in the SpillGuard online platform with a GIS overlay of the sewer network for rapid situational awareness.

With continuous daily call-ins and event-based alarms, the utility gained timely I&I intelligence to target inspections (CCTV, smoke/dye testing), reduce unnecessary treatment of dilute flows, and protect ageing infrastructure. The result: faster I&I detection at a fraction of the cost, less reliance on manual surveys, and a clear path to lower operational and treatment costs across the sewer network.