Case Study - CheckMate® Inline Check Valve Protects Community From Offensive Sewer Odors

A Louisville, Kentucky, neighborhood was plagued by unpleasant odors emanating from the community’s combined sewer system (CSO). Olfactory nuisances were emanating from a collection basin that collects stormwater and discharges it through a pipe into the CSO.

The municipality unsuccessfully tried to mitigate the backflow of sewer gas from the CSO by adding plywood to cover most of the pipe. They even used toilet cake-type deodorizers to minimize odors. Realizing that the plywood could not effectively prevent the backflow of sewage and that it severely diminished the pipe flow capacity, the municipality had to find a more effective solution that would restore the flow capacity of the pipe and prevent the backflow of sewage and sewer gas. The municipality selected a 48” Tideflex® CheckMate® Inline Check Valve to solve the problem.

The CheckMate® was easily installed into the existing structure by sliding the valve into the pipe and clamping it into place. Modification to the pipe or the existing structure was not required. The installation was completed within a matter of hours. The CheckMate® has proven to be completely effective in preventing the backflow of sewer gas. The municipality had concerns that the valve might not drain and would cause standing water. They inspected the collection basin after a large storm event and it was completely drained, proving the CheckMate® is self-draining with very low headloss.

In outfalls, stormwater, CSO and SSO applications, the CheckMate® custom-engineered, all-rubber unibody design prevents sewer system’s offending odors from backing up, while still allowing water to discharge as needed. The CheckMate® Inline Check Valve will never corrode and is designed to eliminate the backflow of unwanted gases that typically result in complaints about odor from the general public.