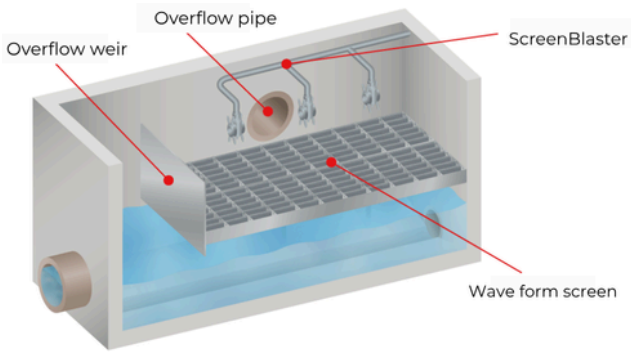
Cleaning Combined Sewer Overflow (CSO) Screens: Why Regular Cleaning Matters?

Combined Sewer Overflows (CSO) are an essential part of a combined sewage system. In combined systems, rainwater mixes with wastewater, so in heavy rainfalls, the system has too much water in it. Without suitable measures in place, the sewage system could overflow.

CSO chambers allow the water level to rise naturally in times of heavy rain and then divert into an overflow pipe. The excess water is then piped away to either be stored in attenuation tanks or discharged at predefined points into the sea or waterways. The CSO system, therefore, prevents sewage water from discharging where it is not wanted - in the street for example!



A vital part of a CSO chamber is the screening system. This removes solids from the overflow water and keeps them within the sewage system rather than the overflow system. This prevents solid waste from being discharged into water ways. In effect, the screens keep the worst of waste within the sewage system proper.

Why Regular Cleaning of Screens Matters

Screens become clogged over time. As debris increases, this reduces the flow rate through the screen. Clogging tends to increase rapidly once it gets started. Unless clogging is kept on top of, it can rapidly accelerate. A small amount of screen clogging will probably have a negligible effect on screen performance, but each blocked area tends to attract more material around it.

Clogs and blocks spread rapidly unless they are addressed promptly. Once established, they become much harder to clean. So, cleaning regularly and often saves a lot of time and effort.

Unless inspected often, screen clogging can go unnoticed until it causes real problems. As most CSO screens are in remote sites, the problems of clogging might not be apparent immediately. Furthermore, because a CSO is a system only designed to be used in storm events, it can be hard to know if the system is working properly until it is actually used. It is not possible to test the screens in any sensible way. As such, you only know there is a problem when the system fails. Keeping on top of screen cleaning and maintenance is therefore vital.

The main lesson here is to clean screens regularly and often. This means that automated or semi-automated screen cleaning systems are becoming the industry norm.

How SNP Can Help

The screens used in the water industry vary in design and size. Site conditions and available resources also vary. In short, screen cleaning requires a nuanced approach. A one-size-fits-all solution is unlikely to be effective.

This is where our expertise comes in. We have helped design cleaning systems for almost any conceivable situation, from small process components to vast vessels. Our StormBlaster™ storm tank cleaning system is widely regarded as the most effective solution for cleaning stormwater attenuation tanks. We bring this experience to bear on the cleaning of screens in the water industry with our ScreenBlaster system.

Get in touch to discover more about solutions for screen cleaning.