

BIOACTIFLO™

For treatment of stormwater and reduction of its soluble BOD

In periods of heavy rainfall, water flows entering a treatment plant may exceed its full wet weather capacity thereby preventing it from attaining the discharge quality standards required by local legislation. Such pollution peaks may cause purification efficiency losses and heavy damage to the receiving environment.

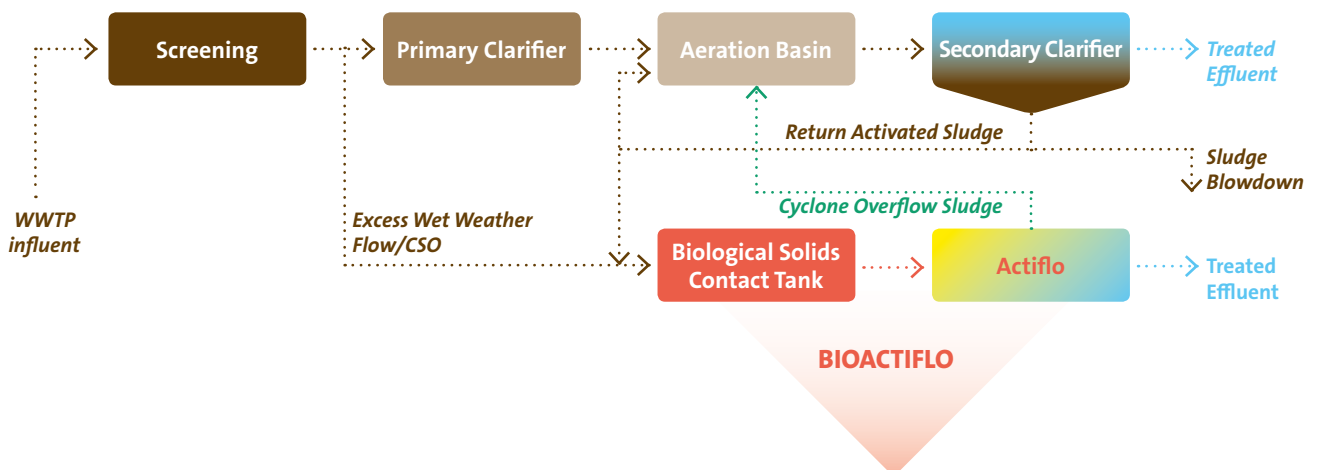
BioActiflo has been specifically designed to address this issue and provide additional biological treatment when the need arises.

It involves a biological treatment - in a pre-contact tank, polluted water (BOD) is treated by activated sludge - **followed by a high-performance secondary clarification: Actiflo®**. Thanks to its high operational flexibility and extreme compactness, this solution helps to **cut down phosphorus, 60 to 80% of soluble BOD, and 85 to 90% of total BOD**. It equally helps to maintain the integrity of the main treatment plant while avoiding sludge overflows.

Operating principle

Bioactiflo combines Actiflo's advantages of quick and high-performance treatment with biological treatment. The return activated sludge flowing back from the secondary clarifiers mixes with the excess wet weather in the contact tank. The concentrations of activated sludge (Mixed Liquor) in the contact

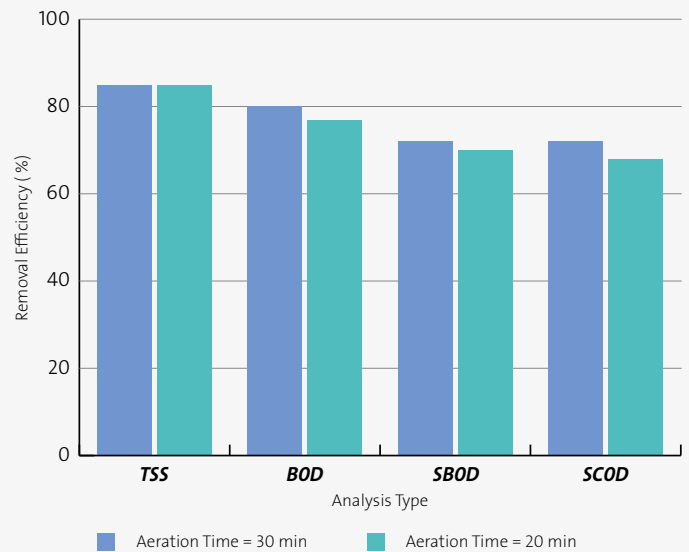
tanks are adjusted to facilitate a quicker absorption of the BOD than in conventional tanks, namely in 10 to 20 minutes. The Actiflo clarification phase then follows, ensuring outstanding reductions rates for both suspended solids, and carbon and phosphorus pollutions.



Advantages

- High performance: pre-contact tank: 10 – 20 min combined with an Actiflo
- Removal of soluble BOD >60% and total BOD >85%
- Treated effluents comply with EPA (USA) discharge standards for suspended solids and BOD
- Ideal solution for «online» treatment of stormwater in combined sewer systems
- Highly economical with low footprint
- Effluent quality guaranteed even with high flow fluctuations

Performance



Pollutant reduction rates per aeration time

(results obtained from pilot, Fort Smith STEP)

Some references

> Wilson Creek, Lucas, Texas, USA, 2012,
121000 m³/day
Tertiary and SSO treatment - clarification velocity:
75m/h

> St. Bernard, LA, USA, 2012, 30 000 m³/day
SSO treatment - clarification velocity: 95m/h