

The Phosphorus Problem

Many of our freshwater lakes, ponds and other water bodies are suffering from algae blooms and depleted dissolved oxygen levels as a direct result of nutrients such as phosphorus entering waterways after a rainstorm.

Dissolved and particulate-bound phosphorus in stormwater runoff feed these algae blooms, which can lead to fish kills and loss of other ecology.



A recent study indicated 49-53% of the total phosphorus in stormwater runoff is in dissolved form.

Particulate-bound Phosphorus

Dissolved Phosphorus

Total Phosphorus

Long-term Impact

If small sand, clay and silt particles are not captured before they enter a river or lake, they can transport high levels of phosphorus over a large area. Over time, the sediment-bound phosphorus is released as dissolved phosphorus into the water and pollutes the waterway.

Immediate Impact

With the presence of dissolved phosphorus loading, algae blooms can grow very rapidly. They create an unpleasant odour and, more importantly, toxic blue-green algae can cause sickness in humans and death or illness in fish and wildlife. Fresh water used for drinking will require additional chemical treatment.

The Breakthrough Solution

Filtration

Removing particulate-bound phosphorus

SorbitiveMEDIA physically filters particulate-bound phosphorus by capturing fine sediment and total suspended solids (TSS). It is available in a range of media gradations to allow for easy application into a variety of BMP designs and applications.

Sorption

Removing dissolved phosphorus

SorbitiveMEDIA sorbs an unprecedented level of dissolved phosphorus. It utilizes a high specific surface area, fast reaction kinetics, and superior long-lasting capacity (as measured by Bed Volume) to capture the dissolved phosphorus and protect waterways.