

Below are a few excerpts from an excellent article on “Meeting the US Stormwater Challenge” featured in GWI Magazine.

“ The new Peak Flows Management Rule could save utilities billions of dollars in plant expansion if they are able to do auxiliary-type treatment.

John Dyson, Aqua-Aerobic Systems

“The beauty of auxiliary treatment and keeping a plant running at peak numbers is that you actually get better numbers for ammonia because you continue to nitrify,” said John Dyson, channel manager for the Aqua-Prime cloth media filter product at Aqua-Aerobic Systems.

Aqua-Aerobic Systems is looking forward to the potential new Peak Flows Management Rule. It has employed its Aqua-Prime cloth media filtration product at numerous WWTPs served by combined sewers and sanitary sewers for auxiliary treatment during wet weather flows. For plants with sanitary sewers, Dyson suggested that a new rule “could save utilities billions of dollars in plant expansion if they are able to do auxiliary type treatment”. Though he told GWI that the firm has a steady project pipeline for wet weather management at treatment plants, extending it to plants that are not part of the roughly 860 combined sewer systems in the country would mean that “the potential pace could pick up dramatically in the next two to three years if the rule gets passed.”

Filtration in the lead

In the past, rapid settling systems (e.g. ballasted clarifiers) have tended to prevail as the technology of choice for peak flows at WWTPs, particularly for retrofitting existing clarifiers for primary treatment. However, when new infrastructure is required (e.g. auxiliary treatment), filtration technologies have come to the fore in recent years. They possess advantages in physical footprint and, perhaps more decisively, a lesser need for chemical addition, which provides rapid settling technologies with their ▶

high rate of treatment.

“The filter technologies have really stepped up to the plate over the last ten years or so,” explained Jim Fitzpatrick, national wet weather leader at Black & Veatch. “The particular one we’re looking at in Little Rock [Arkansas] is one where they’ve scaled up their filter to make it more robust and handle higher solids loads than traditional filter technologies.”

Advances in filter solutions have given them the advantage going forward. “We’re seeing a lot of utilities favouring the high rate filter option versus technology that’s been applied in the past requiring chemicals,” added Fitzpatrick.