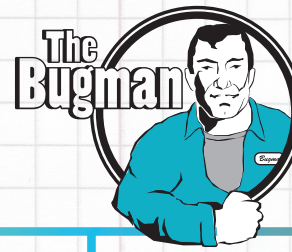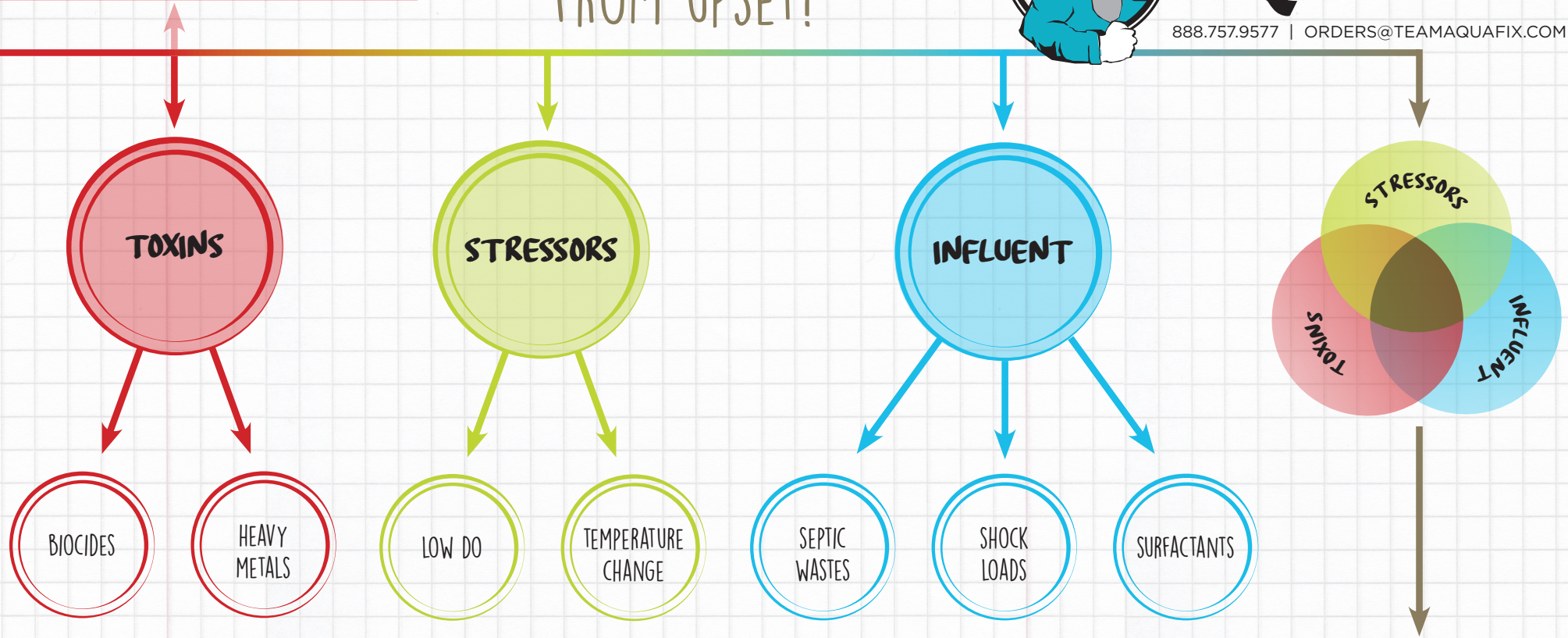Aquafix is conducting extended studies into the effects of quaternary ammonium cations (Quats or QACs) in water. Current results are available online.

RECOVERING FROM UPSET?

The Bugman

AQUAFIX

888.757.9577 | ORDERS@TEAMAQUAFIX.COM

TOXINS
- BIOCIDES
- HEAVY METALS

STRESSORS
- LOW DO
- TEMPERATURE CHANGE

INFLUENT
- SEPTIC WASTES
- SHOCK LOADS
- SURFACTANTS

Venn diagram: STRESSORS, TOXINS, INFLUENT

BIOCIDES

Bleach, quats, and alcohol sanitizers are intended to kill bacteria which makes them toxic to bacteria in wastewater treatment. Healthy wastewater systems have a much higher tolerance to biocides.

Smart BOD & Dynamic Duo

HEAVY METALS

Certain heavy metals such as mercury and cadmium are extremely toxic to bacteria (and everything else), but even necessary micronutrients such as iron or cobalt can be toxic to bacteria in high concentrations.

Smart BOD & Dynamic Duo

LOW DO

Heterotrophic bacteria in wastewater require significant concentrations of DO to remove nutrients. When DO levels are low, these bacteria are stressed, leading to poor bacterial function and cell death.

OxyPaks XL

TEMPERATURE CHANGE

Rapid temperature changes (especially temperature drops) stress bacteria, making them less resistant to toxins and less capable of handling unusual loading.

VitaStim Polar

SEPTIC WASTES

Incoming septic waste is inhibitory because it contains reduced sulfur compounds and volatile acids which are mildly toxic to bacteria. Generally, this is only an issue in already stressed wastewater plants.

OxyFresh

SHOCK LOADS

Random occasional highly concentrated waste streams known as "shock loads" result in overwhelmed bacterial populations. Plants can acclimate to this over time if adequate aeration is available.

VitaStim Sludge Reducer

SURFACTANTS

Surfactants reduce surface tension in wastewater systems which can lead to problems with foaming. Foaming can cause low DO, and surfactants are often mixed with biocides that can cause toxicity.

VitaStim Surfactant

While any single factor can upset your system alone, compounding several issues can greatly multiply your problem. These various upsets can add to and worsen one another, especially if left to overlap too long.