

Editorial Contact:  
Cortec® Advertising Agency

Julie Holmquist  
(651) 429-1100 Ext. 1194

[jholmquist@cortecvci.com](mailto:jholmquist@cortecvci.com)

Company Contact:  
Bionetix® International

Tonya Decterov  
(514) 235-5202

[tdecterov@bionetix.ca](mailto:tdecterov@bionetix.ca)

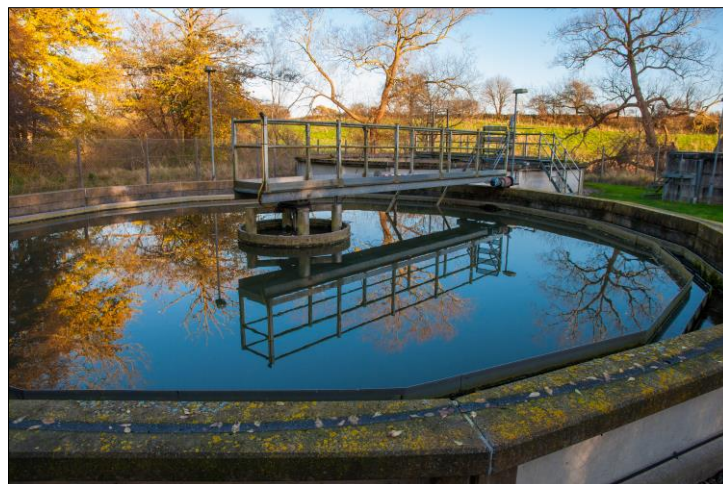


**Attention: Editor**  
**September 23, 2024**  
**PRESS RELEASE**



## **Cool Weather Wastewater Treatment? Bring on the Bugs!**

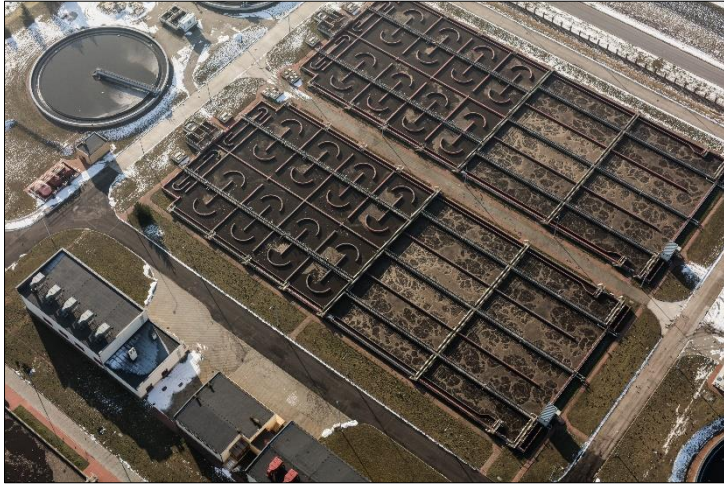
Fall is here in the Northern Hemisphere. On the positive side, that means seeing more landscapes splashed with red, yellow, orange, and burgundy leaves on the daily drive. On the negative side, it means it is time for wastewater treatment plants to reevaluate their current bioaugmentation plan to prepare for cooler temperatures. [Bionetix®](#) is here to help with a simple rule of thumb: When cooler temperatures arrive, add more bugs.



### **Microbes Are Indispensable**

Wastewater treatment would be impossible without microorganisms that feed on organic waste to get the nutrients and energy they need to grow and reproduce. This biodegradation process breaks larger contaminants into smaller innocuous elements that can safely be released back into nature.

Two key measurements of effluent quality are BOD (biochemical oxygen demand) and/or COD (chemical oxygen demand), which indirectly reflect the level of organic compounds. When more oxygen is required, more contaminants are present. The goal of wastewater treatment is to reduce BOD/COD by improving water quality.



### **Bioaugmentation and Cold Weather**

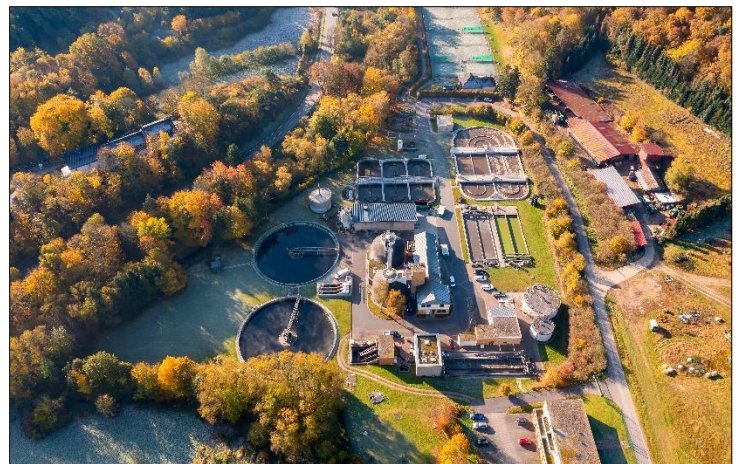
While many microorganisms are naturally present in wastewater, it is often beneficial to add extra microorganisms to speed up waste degradation. This is called bioaugmentation and is especially important during cool weather, when microbial metabolism slows down.

Microorganisms take longer to multiply, some die off, and BOD/COD reduction is slower and less than before. Hence, a drop in temperature can lead to an increase in BOD and require more intense bioaugmentation to keep BOD levels down.

### **Billions of Microbes, Multiple Options**

Many different microbial blends can be used to boost BOD/COD reduction in lagoons, aerobic digesters, SBRs (sequencing batch reactors), MBBRs (moving bed biofilm reactors), and other secondary wastewater treatment systems during cool weather.

[BCL6000™](#) is a good choice where automatic pumping is desired. In addition to containing 2 billion CFU (colony forming units) per mL, this liquid blend also contains free enzymes, nutrients, and an oxygen source to support healthy aerobic conditions and metabolism among the microbial population. The microorganisms in



BCL6000™ can continue to work as long as the wastewater temperature stays above 50-54 °F (10-12 °C).



[BCP50™](#) contains bacteria in powder form that can be dosed based on daily flow rates, retention times, and other factors. This blend of 5 billion CFU per gram of product is targeted to degrade proteins, fats, carbohydrates, and select hydrocarbons. It is recommended for reseeded and startup, when an extra boost of microorganisms and nutrients is

needed to get a healthy colony established. This microbial loading action also makes it a good candidate for replenishing microbial populations that are struggling to flourish in cooler temperatures. [BCP655™](#) is similar but aimed at lagoon systems. Both can be used in wastewater that is at least 50 °F (11 °C) or warmer.

### Get Ready to Add More Bugs!

As the weather cools, it is vital to plan ahead for those months when it will be harder for microbes to keep up with the normal wastewater workload. [Start choosing your extra bugs now to stay at a healthy rate of wastewater BOD reduction this fall and winter!](#)

*Keywords: winterizing wastewater treatment plant, wastewater treatment in cold weather, bioaugmentation, wastewater troubleshooting, Bionetix, wastewater challenges in cold weather, BOD problems and solutions, how to reduce BOD, biochemical oxygen demand, COD in wastewater*



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