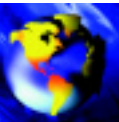




System Application



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Unique FAST® Process Helps Bring Tokoroa High Effluent Standards



Application Profile: Tokoroa STP, Tokoroa
Equipment: FAST WWTP & Filters
Installed: 1998

When the South Waikato District Council commissioned a study of the Whakaru Stream, an important cultural and recreational resource, it wanted the Tokoroa Wastewater Treatment Plant's outfall to have minimal impact on this important waterway. The Council decided to adopt a proactive stance, seeking a treatment that would raise effluent discharge quality to restore recreational and environmental integrity to the waterway.

In addition to effluent discharge requirements, limited land availability and a system that would require limited maintenance further restricted Tokoroa. After carefully considering submittals with technology from many international companies, Council leaders found the answer to meet their treatment specifications. They selected an innovative wastewater treatment technology established in the United States known as FAST®, *Fixed Activated Sludge Treatment*. The FAST System process, engineered and manufactured by Smith & Loveless, Inc., is an aerobic, fixed film, packed bed reactor with completely submerged media specifically designed for compact sites and fluctuating loadings.

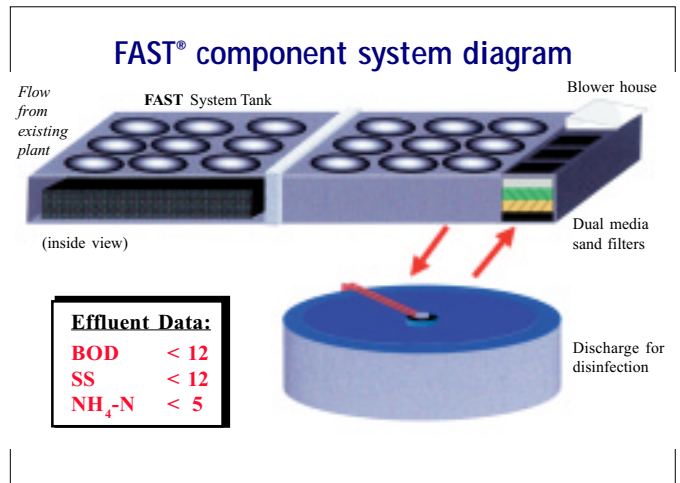
The addition of the FAST was part of a \$4 million upgrade to the Tokoroa Wastewater Treatment Plant, the largest treatment plant in the South Waikato District. The plant serves the community of Tokoroa with a population of more than 15,000, treating between 4,000 m³ to 6,000 m³ of wastewater per day.

Prior to the upgrade, the plant discharge consent requirements were 30g/m³ BOD and 40 g/m³ SS. Once the FAST was up and running, however, the plant levels achieved were about 6 BOD g/m³ and 6 SS g/m³. These levels place Tokoroa well within the guidelines established through the Resource Management Act (RMA) process of 12:12 and promote the health of citizens and surrounding wildlife and fish life. The quality of the effluent entering the Whakauru Stream is of a very high standard allowing greater recreational use and ensuring fish, such as trout, can live just below the discharge area.

"The standards of effluent treated through this process are of the highest in New Zealand," said South Waikato District Council Asset Management Director Alex Shaw, who also served as Project Engineer.



Energy efficiency is an important benefit of the aerobic FAST treatment system, installed at the Tokoroa Wastewater Treatment Plant.



Smith & Loveless New Zealand Ltd.

Smith & Loveless New Zealand Ltd., based in Auckland, is backed by the resources of the global Smith & Loveless group. Smith & Loveless New Zealand is committed to delivering innovative, cost effective solutions to the water and wastewater industry.

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