Better Water. Better World.

FOR IMMEDIATE RELEASE

CASE STUDY

Title: Onsite Residential Membrane Systems, *Possible?*

Homeowners test the latest advancements for their wastewater treatment

BioBarrier® System installed by Alternative Wastewater Systems, LLC. in Idaho.

Situation

Since early 2001, Alternative Wastewater Systems (AWS) of Idaho has distributed Bio-Microbics products. Very familiar with the MicroFAST® and other FAST® systems, they wanted to try out the new BioBarrier® Membrane Bioreactor (MBR) unit, also from Bio-Microbics.

Ryan Spiers of Spiers Construction identified a family needing a MicroFAST® 0.5 and asked them if they would be willing to upgrade at no additional cost to a BioBarrier® MBR system. With all of the benefits that this system promises, they agreed.

Solution

First of its kind in Idaho to evaluate membrane treatment for the single family home, the NSF®/ANSI STD 40/245 certified system was installed and has been tested every other month to show the effluent being treated to direct discharge characteristics, i.e. effluent quality of BOD <2 mg/L, TSS <2, Ammonia <1 and reduces Fecal Coliform and E. Coli to less than 10 cfu.

With these advanced, biological nutrient removal capabilities, the BioBarrier® is engineered in a small footprint and immersed directly in the aeration process in the tank. Utilizing flat sheet membranes for a versatile design and robust process, the BioBarrier® has a high surface area of membrane material in a double plate configuration. The membranes and processes used in this advanced system act as a physical barrier for nearly all common pollutants found in wastewater. The treated water moves through the pores to the space between the films. A pump then extracts the clean water to discharge in to the environment. Using a completely automated control strategy, the unique operation sequence of the BioBarrier® system requires no complicated backwash.

BioBarrier® drops down into tank with floats and air tube (one unit per 500 GPD).

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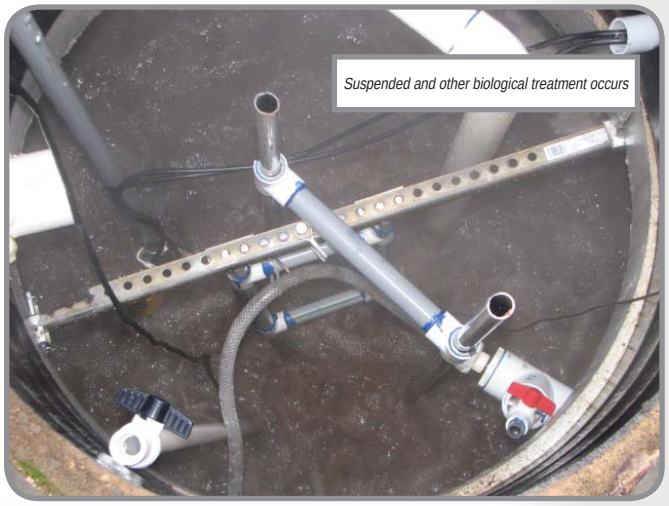
Results

The BioBarrier® MBR system, which received the 2009 Technology Award presented by the Environmental Business Journal (EBJ), provides new opportunities for wastewater recycling. After more than 8 months in operation, the test results have proven the system is capable for direct discharge.

"I really am amazed at what this little unit does, California standards on what class A effluent is can be easily attained by this unit all by itself. We've been testing the coliforms and I believe there is no need for further disinfection. The effluent is at acceptable levels for direct discharge to any where you would want to put it," says Mr. Spiers.

The BioBarrier® MBRs and HSMBR® systems are one of first MBR systems specifically designed for the onsite market. More than ever, onsite professionals and end users choose Bio-Microbics for their wastewater treatment requirements to help conserve natural resources, protect ground and surface waters, and overcome land constraints.


Suspended and other biological treatment occurs


Small footprint and landscape friendly design.

About Bio-Microbics, Inc.

With a worldwide emphasis on environmental concerns and improving water quality, Bio-Microbics manufactures proven wastewater and storm water treatment systems for decentralized communities and commercial properties. Ideal for concrete, fiberglass, steel, or plastic tanks, the simple, pre-engineered, modular design of our FAST® [including the popular MicroFAST®] wastewater treatment systems deliver consistent high performance. Successfully used for over 35 years in municipal, industrial, marine, commercial and residential properties located around the globe, the advanced FAST® (Fixed Activated Sludge Treatment) technology is easy to install and maintain. Our advanced wastewater and stormwater treatment products help treat the world's water better.

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