UNIVERSITY OF MARYLAND
CAMPUS RECREATION SERVICES

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Dear Association for the Advancement of Sustainability in Higher Education (AASHE),

I am Matthew Quigley, Manager of Pool Operations for Campus Recreation Services of the University of Maryland. Sphagnum Moss pools utilize, at some point in their circulation system, the natural properties of Sphagnum Moss as a water treatment method. The system(s) used at our aquatic facilities were installed by the inventing company, Creative Water Solutions, who is currently the sole proprietor of the system. The indoor systems were installed in August 2011; while our outdoor systems followed suite in April 2012. The reasoning behind their installation was the expectation that this sustainable product would decrease the amount of harmful chemicals (disinfectants) used to treat the pool water as well as reduce the amount of water wasted through backwashing (process of rinsing the filters in order to protect their effectiveness). With this expectation our department would be at the forefront of sustainable water treatment while decreasing our effect on the environment and increasing our human health benefits.

The Sphagnum Moss water treatment systems work to inhibit the growth of biofilm, microorganisms that grow on pool surfaces which had been killed previously with increasingly stronger doses of chlorine disinfectant. With the system inhibiting the growth, the biofilm is easily killed and the pools remained sanitary with the use of less chlorine. The moss also acts as a pH buffer allowing us to decrease the use of chemicals such as sodium bicarbonate, Carbon dioxide and muriatic acid to balance our pH. This system decreases the growth of biofilm in our filters in turn leading to less backwashing; decreasing the amount of water sent to waste and amount of energy needed to heat new water. The University of Maryland was the first facility of its magnitude (nearly 2 million gallons) and first university to utilize the Sphagnum Moss water treatment system. As mentioned previously the moss acts to decrease our chemical and water usage; interestingly enough the moss is actually waste from the orchid industry in New Zealand. Maryland has not only been a leader by being the first to install this system but has also lead the way in giving multiple tours, interviews, and presentations instructing other universities and municipalities on the benefits of this sustainable effort.

The Sphagnum Moss has proven to produce positive benefits in that we used the money saved from the first six months on the indoor pools to purchase two systems for the outdoor pools. We have also seen savings of 750,000 gallons of water and $30,000 in chemical purchases. We have, and will continue to advocate for the use of Sphagnum Moss at other universities. Future plans include introducing variable frequency drives in our pumps to reduce energy usage and installing solar panels to heat some of pools and create free, sustainable energy for our facilities.

Sincerely,

Matt Quigley

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