

MONSTER INDUSTRIAL™



The final product - Class A biosolids - washed, cleaned, dried and ready for land application



Monster Solutions

JWCE's Honey Monster Helps Big Fish Environmental Find Clean Water

For several years, local Michigan municipalities were overloaded with septage disposal issues and it was difficult for private pumpers to offload as land-application of septage became illegal. So John Campbell, founder of Big Fish Environmental and a 29 year veteran of septic tank pumping, started developing a unique and efficient septage receiving and treatment plant design.

Campbell reviewed several septage receiving units from other manufacturers before choosing the Honey Monster® Septage Receiving System from JWC Environmental in Costa Mesa, CA. "The hair removal in the auger portion of the Honey Monster resulted in virtually no downstream clogging," said Campbell. "The screening ability also made our homogenizing process more consistent per slurry load."

Campbell provides consulting for pumpers interested in developing their own business running a receiving and treatment facility. By combining proprietary equipment as part of a treatment process, Campbell was able to develop a self-contained plant that can receive septage from the local municipality, private septage haulers, and other industrial producers. They all need to address waste processing.

In 2005, the first Big Fish Environmental facility was built in Charlevoix, Michigan. "We put our process to the test and were receiving an average of 20,000 GPD waste from private septage haulers, local produce processors and municipal waste including fats, oils and grease," said Campbell. "We basically took and tested all the septage waste that no one else wanted to handle."

First, septage is received from pumper trucks by the Honey

PROJECT: Develop reusable biosolids processing plant

SOLUTION: Honey Monster®

CONSULTANT: Big Fish Environmental

Monster and then flows into a two-compartment equalization tank. As part of this process, the Honey Monster's high removal rate of inorganic solids along with the homogenization of organics proved crucial in Big Fish meeting EPA specifications for 503 exceptional quality Class A biosolids.

The Honey Monster is an easy-to-install automated system. First, septage flows through the rock trap where heavy items fall out. Rags, plastics, debris and other solids are quickly shredded by the powerful HYDRO grinder. The Auger Monster® screen removes, washes and compacts the solids, putting organics back into the waste stream, decreasing volume and reducing odor. The Auger's tilt and swivel feature allows easy access for inspections.

The first compartment of the equalization tank blends air and bacteria with the septage, creating a slurry which is degrittled in the second compartment. This slurry then passes through a series of mixing tanks for further aeration, bio-filtration, mixing and lime stabilization. Big Fish continues testing to maintain the correct methodology in mixing aerobic micro organisms for treating the incoming septage.

The last step is dewatering through a screwpress, producing pathogen free Class A biosolids and discharging effluent back to the municipal treatment plant for further processing. Campbell's ultimate goal is to produce 'drinkable' water.

Part of Big Fish's development process is achieving EPA Environmental Technology Verification (ETV) which is now in final approval stages. Biosolids produced at the Charlevoix plant are approved by the State of Michigan as EQ Class A reusable biosolids and are being distributed over agricultural fields.

With testing and design streamlined, Campbell is eager to install more septage receiving facilities throughout Michigan and





Improper disposal of septage is a problem everywhere. Michigan lawmakers now require haulers to use receiving stations such as the one at Big Fish Environmental (photo from St. Clair County)

neighboring states.

“We have several different design packages that can be customized to fit specific applications,” Campbell explained.

These low maintenance, small footprint septage processing plants are a cost effective alternative to land application and the high screening and inorganic removal benefits of the Honey Monster are key features of the Big Fish design.

About Big Fish Environmental

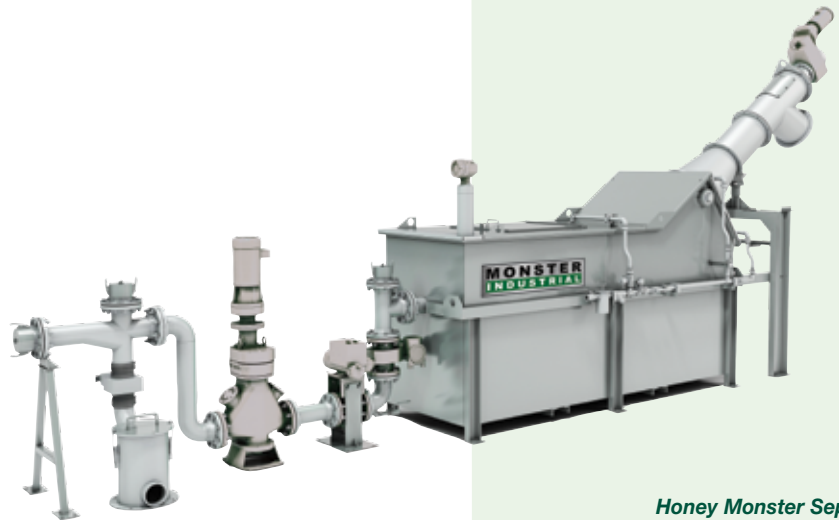
John Campbell, founder of Big Fish Environmental, specializes in the design and construction of septage and sludge receiving and treatment facilities. For more information: Big Fish Environmental, 12608 Taylor Road, P.O. Box 528, Charlevoix, MI 49720, 231-547-4429, fax 231-547-2057 online: www.bigfishenvironmental.com.

About JWC Environmental

Founded in 1973, JWC Environmental is a global leader in high-efficiency, dual-shafted waste grinders. We've built and shipped over 35,000 Monster shredders, screens and compaction systems to customers around the world. We offer over 200 different shredder configurations. Our commitment to quality and reliability makes Monster grinders legendary in many industries.

Our line of HYDRO grinders are designed to reduce the size of solids in a liquid solution. Our SHRED series is built for reducing tough solids in wet or dry hopper fed systems. Our team will find, or custom build, the Monster Industrial shredder that's right for your application. Don't waste it – grind it with Monster Industrial.

JWC Environmental distributes its products through a global network of independent representatives and distributors. In addition, JWC provides extensive sales and service support through regional and international product support centers.



Honey Monster Septage Receiving System

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JWC
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Trust Monster Quality™

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