



# BIOFILTRO

worm powered wastewater solutions

A WASTEWATER SYSTEM  
REGENERATIVE BY NATURE  
RESTORATIVE BY DESIGN

## TRANSFORM YOUR LAGOON AND GENERATE CARBON CREDITS

### A NATURE BASED SOLUTION FOR LIQUID MANURE

BioFiltro's patented worm powered wastewater system catalyzes the digestive power of worms and microbes to **remove 70 - 99% of total nitrogen, phosphorus, ammonia, and total volatile solids** from liquid manure within a four hour process. When installed upstream of the lagoon, we prevent solids from arriving to the lagoon and thus **prevent the formation of methane and other green house gases from occurring**. As such, our system enables you to achieve nutrient management plans, reduce your land application area, and/or increase your herd size while **generating up to 8 carbon credits per milking head per year**. Plus, our system's byproduct is vermicompost, a nutritious amendment that builds soil health by improving water retention, root structure, and biodiversity.

Over 90% of dairy solids are smaller than 50 microns, which means that it is impossible to mechanically separate it out. By installing DCC Waterbeds, you minimize the amount of solids that enter the liquid stream in the first place, thereby reducing the headache and cost of solids management and hauling. Plus, BioFiltro's hydraulic loading rate is primarily determined by solids, so the fewer the solids, the more cost effective our system becomes.

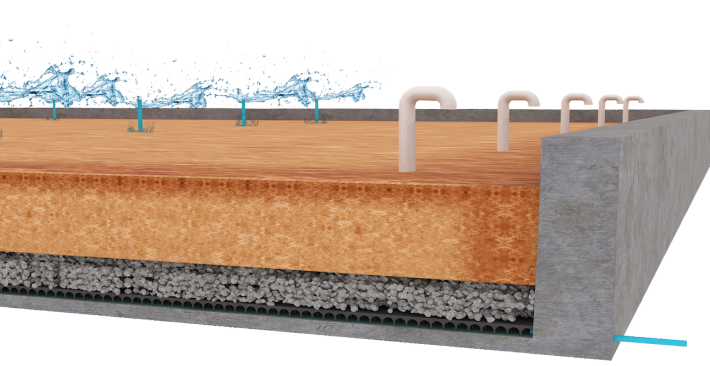


[info@biofiltro.com](mailto:info@biofiltro.com)

[www.biofiltro.com](http://www.biofiltro.com)

(530) 564 4260





## A ROYAL CASE FOR WORMS, COWS, AND WATERBEDS

BioFiltro's BIDA® System consists of wood chips, crushed rock, and drainage cells. Worms and microbes feed on the liquid manure that is delivered through a surface irrigation system and, as worms burrow through the bed digesting solids, they create channels which aerate the system and generate castings rich in microbes which consumes dissolved and soluble contaminants.

At Royal Dairy, in Royal City, WA, BioFiltro built a BIDA® System in 2017 that has a 90%+ lifetime removal of Total Phosphorus, Ammonia, Total Nitrogen, and Total Volatile Suspended Solids. In 2020, the project was verified to generate ~42,000 carbon credits per year and, in 2021, DCC Waterbeds were installed to reduce solids loading on the system so as to reduce maintenance requirements.



By Using Worms, Each Milking Cow  
at Royal Dairy Will Generate  
6 - 8 Carbon Credits A Year

upstream of BioFiltro



BioFiltro



downstream of BioFiltro







# SIMPLER MANURE MANAGEMENT STARTS IN THE BARN

**DCC Waterbeds®**  
Dual Chamber Cow Waterbeds

## DO MORE WITH LESS

**Less bedding.** With DCC Waterbeds you can give your cows consistent daily comfort with to up 90% less top bedding. This means **more options** for how much and how often you choose to bed your cows.

**Less equipment and maintenance.** With DCC Waterbeds, less top bedding means fewer trips to the barn and less maintenance on bedding equipment, giving you **more time** to focus on work outside the barn.

**Less manure volume.** Are you managing your manure or is your manure managing you? With DCC Waterbeds, less top bedding means a lower total volume of waste to process and store, helping you turn your manure from a burden to **more of a benefit**. When followed by BioFiltro's BIDA® System, you can more easily meet the requirements of your nutrient management plan.

**Less labor.** Labor availability and rising wages continue to challenge dairies. Less bedding, fewer repairs and simpler manure management means your employees can be better utilized in **more profitable** areas on your farm.







**RESULTS  
THAT MATTER**

**DCC Waterbeds®**  
Dual Chamber Cow Waterbeds

## **PUT DCC WATERBEDS TO WORK FOR YOU**

**Proven long-life comfort.** As the world leader in cow waterbeds we have over 20 years of helping farmers achieve their cow health and business goals. With easily managed stall bedding and cleaning, DCC Waterbeds **work** to give you healthy legs and udders, supporting your production and operational objectives.

**Pairs with modern technology.** DCC Waterbeds are compatible with many technologies - robotic milking, slatted floors, vacuum, flush or automatic scrape manure systems. We make **easier work** in the stall, so your paired technologies can do a better job for you outside the stall.

**Low total cost of ownership.** DCC Waterbeds' superior material construction means many years of consistent comfort for your cows with lower total stall management costs. Less labor costs, less bedding usage and fewer related repairs means a better bottom line. Nothing **works** like DCC Waterbeds to provide you a cost-effective solution for cow comfort.

**Let your manure work for you.** A cleaner manure stream means simpler management after it leaves the barn, making it **work better** as a nutrient source, soil amendment, and when paired with BioFiltro's BIDA® System, a green water solution for your on-farm and in-field needs.

