



The strong desire to introduce improved effluent discharge standards is currently impeded by the lack of cost effective technology.

Algae have the potential to transform the global wastewater industry through their efficient biological treatment properties.

Algaewheel is a unique technology that combines bacteria and algae to provide conventional wastewater treatment and nutrient removal in a single system. Algaewheel's energy efficient, environmentally friendly solution also has much lower costs than current systems.

Effective water treatment is essential to maintain healthy ecosystems. Population growth, changes in industrial processes, land use, and the application of commercial fertilizers and pesticides, have all combined to alter the amount and complexity of wastewater and to challenge traditional treatment processes and their associated costs.

Algaewheel replaces the typical equipment used in the biological process of a conventional wastewater plant.

The bacteria reduce the BOD loading, while the algae reduce nutrients and remove heavy metals in a reliable and stable process. The resulting high quality effluent can thus be safely released into watercourses or re-used. Algaewheel also captures and enhances the energy potential of the wastewater to produce high BTU biomass.

Today, nutrient removal is at the forefront of regulatory pressure. When an excess of nutrients are released into watercourses these can cause algal blooms, which upset the ecosystem, harm fish and humans and can interfere with treatment processes for drinking water.

Algaewheel presents the wastewater industry the opportunity to address key environmental issues and reduce both capital and operational costs of wastewater treatment as a whole.

CLEAN WATER    CLEAN ENVIRONMENT    LOWER COST



Algaewheel  
9333 N. Meridian Street  
Suite 108  
Indianapolis  
IN 46260

T: 317 582 1400  
Toll free: 877.algaewheel  
[www.algaewheel.com](http://www.algaewheel.com)

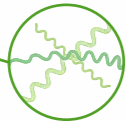


CLEAN WATER    CLEAN ENVIRONMENT    LOWER COST

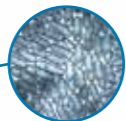
# CLEAN WATER

## wastewater treatment & nutrient removal

The algawheel system combines the biological processes of bacteria and algae to deliver improved wastewater treatment including nutrient and heavy metal removal in a stable and reliable process.



Algae grow on the surface of the wheel.



Bacteria grow inside the wheel on bio-balls.

The growth of algae produces oxygen which is required by the bacteria. The bacteria in turn produce the carbon dioxide required by the algae. Thus, an ecological balance is established in the algawheel system making it very stable and resistant to the fluctuations normally experienced in conventional wastewater treatment systems.



# CLEAN ENVIRONMENT

### energy efficiency

The algawheel process is extremely energy efficient and also removes the energy demand required for sludge digestion.

### sludge disposal elimination

The algawheel process captures sludge prior to digestion to preserve its energy and eliminate impacts of processing and disposal.

### greenhouse gas abatement

The algawheel process dramatically reduces carbon emissions and in addition algae absorb CO<sub>2</sub> as part of the photosynthetic process.

### clean energy feedstock

The algawheel process produces large quantities of high BTU biomass that can be processed into green energy.

# LOWER COST

### capital costs

An algawheel plant has a comparable cost to conventional activated sludge processes, while also providing nutrient removal.

### operational costs

An algawheel plant has lower operational costs due to its lower energy use and elimination of sludge digestion and disposal.

Algawheel delivers improved water quality, through an environmentally friendly solution that results in lower costs.