HydroMentia

WATER TREATMENT TECHNOLOGIES

HydroMentia: Solutions for a Changing Environment

HydroMentia is a water treatment company recognized as a pioneer in achieving pollution control naturally.

The HydroMentia process is both natural…and economical…because we use a managed approach that results in a significant savings in both land and treatment costs.

Our patented treatment technologies, including the Algal Turf Scrubber® (ATS™), harness nature's own restorative power, using engineered systems to purify polluted lakes, streams, and estuaries.

Developed and proven through three decades of scientific research and commercial application, HydroMentia's technologies successfully remove and recycle harmful pollutants. Equally important, our technologies provide this solution at a lower cost.

"The Algal Turf Scrubber® harnesses the **natural cleansing properties** of periphytic algae, one of the most productive plants on earth."

HydroMentia's ATS™ Technology:

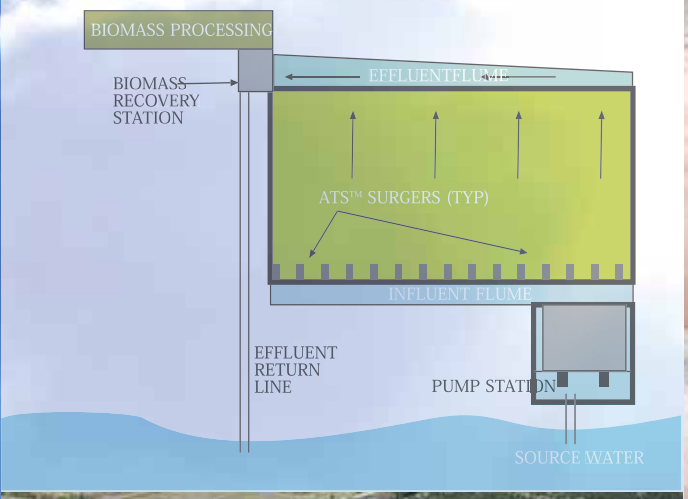
Innovation and Results

HydroMentia's Algal Turf Scrubber® (ATS™): The Algal Turf Scrubber® was pioneered by Dr. Walter Adey, former Director of Marine Systems Laboratories at the Smithsonian Institution and HydroMentia.

ATS™ systems are typically constructed near the impaired surface water. Polluted water is conveyed to the treatment system, where it is pulsed in waves across a sloped floway.

Algal turf, or dense mats of simple algae, are cultivated on a grid structure on the surface of the treatment floway. As water travels down the turf scrubber, pollutants are absorbed by the algae within the ATS™ treatment unit. A patented precipitation process helps to rapidly remove harmful pollutants from the water, including phosphorus and heavy metals.

Because the entire natural process is engineered and controlled, efficiencies in the treatment process are continuously maximized.



Winner:
Council for Sustainable Florida;
Leadership and Best Practices Award

Resource Recovery and Performance

Resource Recovery: Nitrogen and phosphorus - commonly found in polluted water bodies – are also essential plant nutrients.... but when they are allowed to build up in excess amounts, they overburden natural ecosystems. Other life forms cannot compete and rich biological diversity is lost.

The patented technologies developed by HydroMentia feature water treatment and crop recovery systems, which unlike typical stormwater and surface water treatment systems, collect and recycle these excess nutrients.

Cultured algae are routinely harvested and then processed into a marketable compost product. With this 100% sustainability approach, we can significantly reduce land requirements and treatment costs versus traditional treatment options.

Performance: HydroMentia's treatment systems are capable of reducing nutrient pollutants to meet the most stringent state and federal standards. Our technologies can be implemented as stand-alone systems, incorporated as an integral element of new facility designs or adapted as upgrades of existing facilities.

HydroMentia's team of water pollution control professionals work with clients and their engineering advisors to develop specific treatment designs and costs for each application.

Cost
Performance
Environmental Responsibility

The Benefits of Using HydroMentia Technology

Low Treatment Cost
HydroMentia's pollution control systems can be designed to reduce pollutants to natural background levels at a fraction of the capital and operating costs of competing systems.

Proven Performance
Managed aquatic plant systems are backed by a 30-year performance record in large scale applications up to 30 million gallons per day (mgd).

Compact Land Requirement
In typical stormwater applications, Algal Turf Scrubber® systems will remove 200-1,000 pounds of phosphorous and 500-8,000 pounds of nitrogen for every acre of process area. At these rates, ATS™ requires only 3-10% of the land area of treatment wetlands. The footprint for a 10 mgd treatment module requires as little as 2.5 acres, making ATS™ ideal where land is limited.

Sustainable & Recyclable Process
Pollutants are naturally recycled into harvested algal biomass. Processed biomass can be sold as organic soil enhancers and compost. Environmental concerns associated with the storage and disposal of sludge byproducts from chemical treatment systems are eliminated, and the process is 100% sustainable.

Adaptable
ATS™ systems offer custom solutions scaled to meet the severity of the pollution problem with capacities from several thousand to over 100 million gallons per day.

Fast Start-up
Due to simple construction and ease of installation, phases for design, construction and start-up can be streamlined to enable a fast, low-cost startup.

To learn more about HydroMentia and the potential benefits for your pollution control needs, contact Mark Zivojnovich at **(352) 804-5126** or visit us on the web at **hydromentia.com**

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hydromentia.com