

# Leviathan™

*Bringing Dead Zones Back to Life*

*It will take a monster to eat a dead zone.*

**Introducing Leviathan:**

- Processes throughputs of up to 8,000 gallons per minute
- Pulls from any depth
- Provides the complete "wetland effect", including aerobic, anaerobic and anoxic microbial nutrient conversion
- Digests benthic-zone carbon deposition
- Operates via grid or off-grid power



Leviathan provides sufficient, concentrated wetland effect to contend with large, nutrient-rich, stratified bodies of water, otherwise known as dead zones, in both freshwater and marine settings.

A standard Leviathan provides over a million square feet of wetland surface area. When combined with circulation provided by a highly efficient low pressure, high volume pump, this wetland machine can move huge volumes of nutrients - nitrates, phosphates and ammonia - as well as carbon into and through the food chain. Without this wetland effect, these same nutrients accumulate in aquatic benthic zones, resulting in stratified water devoid of oxygen.



# Leviathan™

## Bringing dead zones back to life.

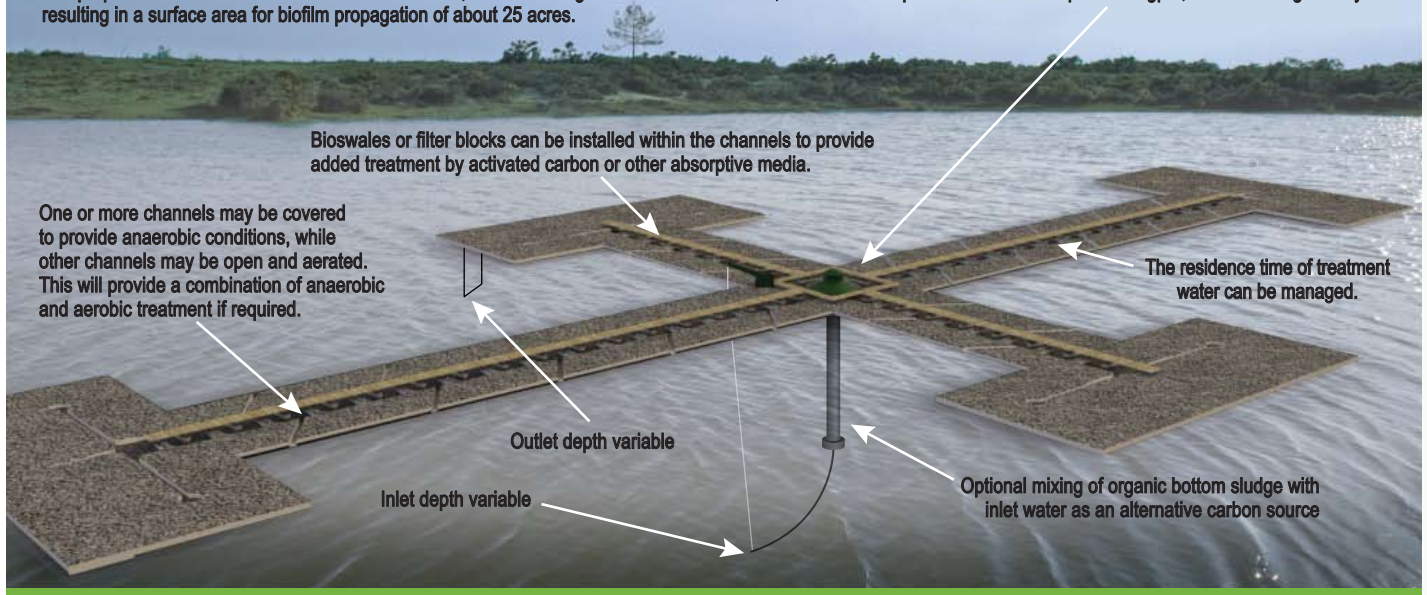
With 2500 ft<sup>2</sup> of top surface and a designable through-the-pump flow rate of up to 8400 gallons per minute, this “wetland workhorse” runs like a machine to expose both point and non-point source nutrients and other contaminants to over 1,000,000 ft<sup>2</sup> of BioHaven® Floating Treatment Wetland surface area. This high-performance design represents today’s state-of-the-art culmination of wetland biomimicry.



## A Workhorse of Cutting-Edge Green Technology

The proposed structure has a surface area of 2500 sf, and an average thickness of 16 inches, resulting in a surface area for biofilm propagation of about 25 acres.

Pump has a flow rate of up to 8400 gpm, or 4.2 billion gallons/year



As water is drawn into Leviathan’s inlet pipe, water from other locations within the waterway will move in to fill the void. Similarly, as water is discharged from the outlet of the system, water will be pushed away from the discharge zone. The flows that do not pass directly through the system’s pump are called “induced currents”. These currents result in relatively large-scale and slow moving circulation patterns that provide additional vertical and horizontal mixing of the water. The magnitudes of the induced currents are dependent upon site and system specifics, and they can commonly be several times greater than the flow rate of water that goes directly through the pump.

- If a 2500 ft<sup>2</sup> footprint with 1,000,000 ft<sup>2</sup> of wetland surface is not enough to biomediate your nutrient challenge, the Leviathan is modular and can be readily scaled up.
- The Leviathan’s internal, low pressure, high volume pump system can operate either off the grid or on the grid.
- To compliment an environmental setting, the Leviathan’s configuration can be naturalized at the client’s discretion.
- A Leviathan system can be paired with conventional BioHaven Floating Islands. This combination will result in an optimized floating wetland that will enhance fish, wildlife, and native macrophytes while cost-effectively cleaning massive volumes of water.

©2009 Floating Island International Patent pending



## Floating Island Southeast

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

L:V1.rev1/10

Phone: 888-660-3473 Email: [info@floatingislandse.com](mailto:info@floatingislandse.com)