



ENVIRONMENTAL FACT SHEET

ENVIRONMENTAL IMPACT AT A GLANCE

CARBON-NEUTRAL & CHEMICAL-FREE

- **Low-Energy Process:** RegenAqua runs on solar and gravity-fed flows—only requiring energy to pump water and turn paddle wheels.
- **Macroalgae as Nature's Solar Panel:** Macroalgae are among the most efficient organisms on earth at capturing carbon. Every cell is a highly effective photosynthetic unit, actively sequestering CO₂ during growth.
- **Zero Chemicals:** No chemicals are used in the treatment process. RegenAqua can even help reduce chemical dosing requirements in upstream and downstream treatment steps (e.g. Alum, chlorine).

KEY METRICS

50t

Carbon Sequestration up to 50tCO₂/ha/year captured by macroalgae during growth.

370t

RegenAqua abates 370 tCO₂-e/ha/year through avoided emissions, chemical offsets, and biomass reuse.

~1/8

The energy of conventional Membrane Bioreactors (MBRs)

2 t DIN

Removes up to 2t DIN and 1t TP/ha/year

CIRCULAR ECONOMY IN ACTION

Capture → Reuse: RegenAqua traps nutrients and contaminants before they reach natural ecosystems – then transforms that captured biomass into valuable products.

One Biomass, Multiple Pathways: RegenAqua's harvested algae enables low-emissions reuse across agriculture, biofuels, and soil restoration.

From Waste to Worth: Closing the loop with macroalgal innovation.



WATERWAYS & ECOSYSTEMS

RegenAqua is protecting waterways and ecosystems through its nature-based solution:



Waste as a Resource

RegenAqua treats wastewater not as a burden, but as a source of recoverable nutrients and carbon.



Improved Discharge Quality

By removing nitrogen, phosphorus, and other pollutants before water is released, RegenAqua protects rivers, reefs, and aquatic ecosystems.

LAND-FRIENDLY DEPLOYMENT

- RegenAqua is suitable for non-arable land—it doesn't compete with agriculture for high-value farmland.
- Modular design means it scales to suit available space and budget while maximising environmental return.



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