



DESIGN & COST FACT SHEET

MODULAR & SCALABLE

RAPID DEPLOYMENT UNITS - FLEXIBLE IMPLEMENTATION

RegenAqua adapts to available land, budget, or treatment requirements. Systems can start small and expand as needed. Rapid Deployment Units (RDU's) are a compact unit designed to act as a pre-facility during the initial phase or deployment. They allow for site-specific testing of wastewater and conditions.

SIMPLIFIED OPERATION

NO SPECIALIST WORKFORCE REQUIRED

Unlike traditional plants, RegenAqua doesn't need highly trained operators. The system is intuitive, making it ideal for regional communities and opening up local employment pathways – more like managing a farm than running a complex treatment unit such as a Membrane Bioreactor or Reverse Osmosis.

KEY METRICS

>50%

>50% Cost Reduction: RegenAqua's capital and operational costs are less than half those of traditional wastewater treatment systems.

Energy

Low-energy Design: Powered by nature-sunlight, solar, and a simple paddle wheel system-RegenAqua requires minimal electricity and no complex machinery.

Maintenance

Minimal Maintenance: With fewer moving parts and no need for intensive chemicals or filters, ongoing maintenance is low-cost and straightforward.

SMART, DATA-DRIVEN EFFICIENCY

- **Built-In Analytics:** RegenAqua systems collect real-time performance data across diverse climates and wastewater profiles.
- **Continual Improvement:** Ongoing R&D ensures each new design is more efficient than the last.
- **Future-Ready Intelligence:** Our growing performance database is laying the groundwork for AI integration—enabling predictive insights and performance optimisation tailored to any environment.



DEMONSTRATION OF COMMERCIAL ADVANTAGE

Comparison table from a competing technologies report, generated by Worley Consulting.

Comparison Unit	RegenAqua	Constructed Wetlands	Membrane Bioreactor (MBR)
Equivalent Nitrogen Remediation Comparison	10,000 kg N pa	10,000 kg N pa	10,000 kg N pa
Remediation Performance (kg N/hectare per annum)	3,000	1,000	33,000
Project Area for Equivalent Remediation	3.3 hectares	10 hectares	0.3 hectares
Construction cost (\$M)	\$11,000,000	\$22,000,000	\$29,000,000
Opex (\$ pa)	\$500,000	\$400,000	\$1,100,000
Total Cost (PV Capex + Opex over 20 yrs, discount rate 7%)	\$16,000,000 (\$800,000 pa)	\$26,000,000 (\$1,300,000 pa)	\$41,000,000 (\$2,050,000 pa)
Equivalent Nitrogen remediation rate (\$/kg Nitrogen removed pa)	\$80	\$130	\$205
Chemical Requirements	Chemical Free	Chemical Free	Methanol, Alum, Caustic, CIP chemicals
Carbon Position	160 tonnes CO ₂ sequestered p.a.	160 tonnes CO ₂ sequestered p.a.	Carbon Emitter

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