



### **Blue Farms (Urban Ecological Systems Ltd)**

Blue Farms take sustainable food production to the next level.

They produce commercial quantities of high-quality plants and fish to meet the demands of supermarket chains.

### **Compelling need for the project**

The client had progressed the concept to a certain point and were seeking an industry specialist to conduct an engineering review of their concept and scale it up to a full-scale process.

The objective was to value engineer the concept, optimising the benefits, and producing a solution that could be rolled out to industry.

**Bioconversion system to upgrade wastewater into a viable agricultural feedwater, for use in a facility in China.**  
**Services delivered: management consulting, design, engineering and project management**

### **Business value created for the client**

The client had a prototyped concept for a bioconversion system that would accept wastewater captured from an aquaculture fish farm.

The wastewater would then be processed, through a series of treatment stages, to turn it into a suitable nutrient feedwater for agricultural crops.

The system could also accept the returned excess feedwater and rebalance the nutrients for reuse.

Wiley was able to take this concept and develop it into a full-scale solution ready for installation, reducing cost and complexity, while improving on the cleanability and robust nature of the design.

### **The challenging scope Wiley delivered**

Our specialists absorbed the prototype concept quickly and were able to add value to the upscaled design immediately. We identified and costed suitable equipment and materials to suit the environmental conditions.

Wiley carried out an analysis and risk assessment of critical systems, followed by the development of redundant systems to support them. Finally, Wiley developed 3D design layouts that worked in with multiple system providers, to drive a fast delivery program.