

<b>Subject:</b>	River Restoration Project	
<b>From:</b>	Gary Harrison	
<b>Date:</b>	24/01/2025	
<b>For information/discussion/decision/action</b> [please delete as appropriate]	Decision	
<b>Summary of decisions or actions requested (including timing):</b> Approve Purchase of Lorawan IOT Turbidity Monitor		
<b>Financial implications:</b> [please explain any costs associated with decisions or actions, and whether these have already been budgeted for] £413.98 ex VAT from £500 remaining in Millfield Maintenance budget.		
<b>Communications:</b> [do we need to communicate with residents and how will this be done if so]		

I am writing to request approval for the purchase of a remote LoRaWAN water turbidity sensor to support the ongoing river restoration project along the stretch of the River Evenlode bordering Mill Field in Charlbury, Oxfordshire. This device will play a critical role in monitoring the effectiveness of our interventions, particularly the impact of naturally fallen trees and sediment management on water quality.

**Purpose of the Device:**

The turbidity monitor will allow for real-time, remote data collection on water clarity, enabling us to:

- Assess reductions in suspended sediment levels resulting from re-siltation processes.
- Monitor the deposition of fine sediments and the improvement in water quality over time.
- Provide evidence-based feedback for adaptive management and reporting to stakeholders.
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**Proposed Device Specifications:**

- LoRaWAN connectivity for low-power, long-range wireless data transmission.
- High accuracy turbidity measurement capability (e.g., NTU range suited for natural river monitoring).
- Durable and waterproof design suitable for outdoor deployment in variable river conditions.
- Real-time data logging and integration with existing monitoring platforms.
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**Estimated Cost:**

The estimated cost for the turbidity monitor, including installation and initial setup, is £413.98 ex VAT. I have attached quotations from a UK Supplier for your reference.

**Justification:**

By investing in this turbidity monitor, we will enhance our ability to collect continuous, reliable data without the need for frequent manual sampling. This will improve the project's overall efficiency, reduce labour costs, and ensure high-quality data for evaluating ecological improvements.

I kindly request your approval for this purchase to support our project's objectives. If approved, I can proceed with arranging for procurement and deployment.

	Product	Price	Quantity	Subtotal
x	 Optional Water Quality Probes for Dragino WQS Series - DR-TS1- Water Turbidity Sensor <small>Available on backorder</small>	From £341.99	1	£341.99 (ex. VAT)
x	 WQS-LB LoRaWAN Water Quality Sensor Converter <small>Available on backorder</small>	From £71.99	1	£71.99 (ex. VAT)

[APPLY COUPON](#) [UPDATE CART](#)

**Cart totals**

<b>Subtotal</b>	£413.98 (ex. VAT)
<b>Shipping</b>	<input checked="" type="radio"/> Free Delivery <input type="radio"/> Next Day Delivery (DHL, order before 2pm): £15.00 (ex. VAT) <small>Shipping options will be updated during checkout.</small> <a href="#">Calculate shipping</a>
<b>VAT</b>	£82.80
<b>Total</b>	£496.78

[PROCEED TO CHECKOUT](#)