



# Northern Monk Brewery



## Installation of a Bio-Augmentation Wastewater Treatment Plant

### The Company

Founded in 2013, Northern Monk are an Independent Brewery based in Holbeck, Leeds. Beer is brewed across 2 sites, The Old Flax Store with Tap Room, and a 2nd larger brewery in Sydenham Rd, established in 2017 to accommodate the increasing popularity of their beers.

### The Problem

Northern Monk required an effluent treatment system that could handle the increased capacity the new site could provide, and ensure environmental compliance. The Brewery's wastewater contains solids from the brewing process, and sugars, creating high Chemical Oxygen Demand (**COD**) which required an innovative solution.

### The Project

Smart Storm designed a complete, bespoke effluent treatment system to address the 'consent to discharge' parameters, ensuring the new Brewery was discharging within the consent to discharge limits:-

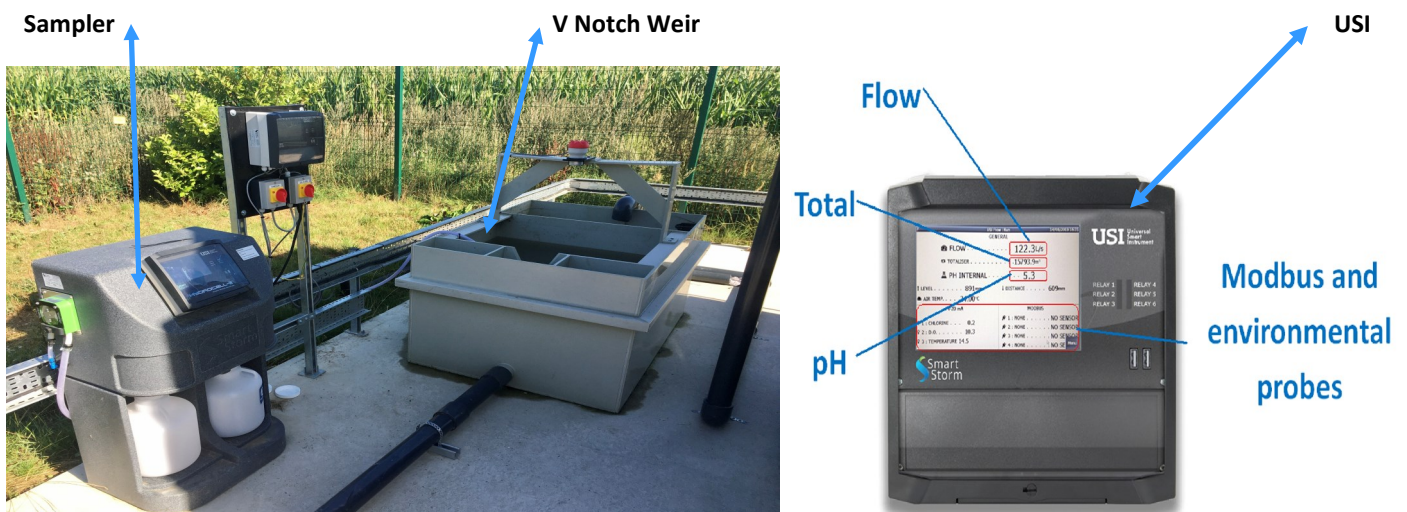
- ♦ **Lamellar clarifier** to drop out solids and to comply with consent limits **(1)**
- ♦ **pH balancing** with acid and caustic for optimal Bio Augmentation **(2 & 3)**
- ♦ **Bio Augmentation** in Bio reactors with strains of bacteria specifically designed for brewery effluent to reduce the **COD (4)**



**'Biological Augmentation'** is the addition of targeted bacterial cultures to speed up the rate of degradation of waste water contaminants. This is an extremely efficient and cost effective way of reducing industrial effluent loads such as COD, suspended solids, ammonia and other organic pollutants. **Our bio-reactors** are specifically designed to achieve the optimal performance from the targeted bacteria.

## Monitoring the treated Wastewater

Smart Storm's own range of intuitive monitoring instruments are used to allow accurate monitoring and enable continuous treatment of the effluent from the brewing process. Evidence of environmental compliance is critical and Smart Storm's systems provide accurate flow measurement for billing purposes and effluent compliance.



The USI combines everything you need in a single product, saving on space and cost of additional Instrumentation and installation. This is the only instrument on the market designed specifically for trade effluent monitoring and control, allowing you to always be in charge of your wastewater management.



## The Outcome

**Laurence Dowson**  
Operations Manager

*"Smart Storm's bespoke Bio Augmentation Plant was designed to ensure that current, and future levels of wastewater, will be environmentally compliant with Yorkshire Water's consent limits."*

**For more information contact Smart Storm Ltd:-**

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