# Flow Metering for Industrial Discharge

# Introduction

In North and South Carolina, there are hundreds of industries that discharge their sewer outfall to their local wastewater authority. To meet the requirements of their wastewater permits, each of these facilities is must maintain a permanently mounted flow meter to log the volume of effluent wastewater they discharge.

According to Scott Huneycutt, Engineering Division Director for Union County NC Public Works, there are currently 85 permitted commercial and industrial facilities requiring permanent flow meter sites in Union County alone.

Union County's wastewater permits call for billing customers to maintain:

- Permanently mounted flow meter(s) with sampler output and mechanical totalizer
- Primary device(s) (flume or weir)
- Totalized flow reports with electronic or paper backup
- Third party calibrations of flow meter to be done annually, semi-annually, or quarterly

### **Perfect Solution**

The Hach® FL1500 is the perfect solution for the permanent billing meter application. With the addition of a US9000 ultrasonic sensor, or the BL9000 bubbler module, the FL1500 can provide dependable flow reporting to meet the permit standards of virtually any wastewater authority. The FL1500 is simple to use, with an interface that is easy to navigate. The device can also log data from rain gauges and pH probes, as well as distribute data via digital and analog outputs.

## **Simplicity and Reliability**

The Foxhole Landfill located in Mecklenburg County, NC is now using a Hach FL1500 with BL9000 bubbler which replaced a Teledyne Isco 4230 meter that had been damaged from numerous lightning strikes. This application required the FL1500 to tie into two existing sampler outputs, a 4/20 ma analog output, and log data from an old rain gauge.



Data logged into the FL1500 can be accessed via USB port or by USB laptop interface.



## **Industrial and Municipal Applications**

#### **Novo Nordisk**

Novo Nordisk Pharmaceuticals recently expanded operations in Clayton, NC. One of the requirements of this expansion was to install a new billing meter site for the expansion, but the monitoring site was located away from the facility with no electrical power available. The solution was to provide a Hach FL1500 with BL9000 bubbler powered by solar array from TyconSolar.

#### Mauser, Inc

Mauser, Inc. in Charlotte, NC has had numerous issues with their existing billing meter over the past three years. This meter was replaced with a Hach FL1500 with BL9000 bubbler.

#### Town of Mebane, NC

Town of Mebane, NC is using a Hach FL1500 with FloDar to monitor their wastewater treatment plant effluent.









FL1500 with BL9000 bubbler installed in locations in North Carolina (US). Solar powered installation allows for use where no electrical power is available.

## **Conclusion**

Industries in North Carolina require permanently mounted flow meters to log the volume of effluent water they discharge, and many have turned to the FL1500 from Hach to serve their needs. Featuring ease of use and rugged reliability, the FL1500 solves the challenge of flow logging, and is the perfect solution for permanent billing meter applications.

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