

### Anglian Water Wholesale Sampling Guidance

This guidance supports information on trade effluent sampling in the Anglian Water Wholesale Operation Manual. This should be referred to for specific interpretations of the Operational Terms and Market Codes.

#### 1. Introduction

This section covers reasons we sample, the frequency of sampling and the analysis we undertake.

Consented Trade Effluent premises are visited by Anglian Water's Catchment Quality representatives, as part of our regulatory duties. Part of this visit will normally include inspecting and sampling the Trade Effluent discharge. Such visits are on an unannounced, regular and randomised basis, at a frequency that is consistent to the risk the trade discharge poses to assets and to Anglian Water's regulatory compliance and the wholesale revenue derived from the discharge.

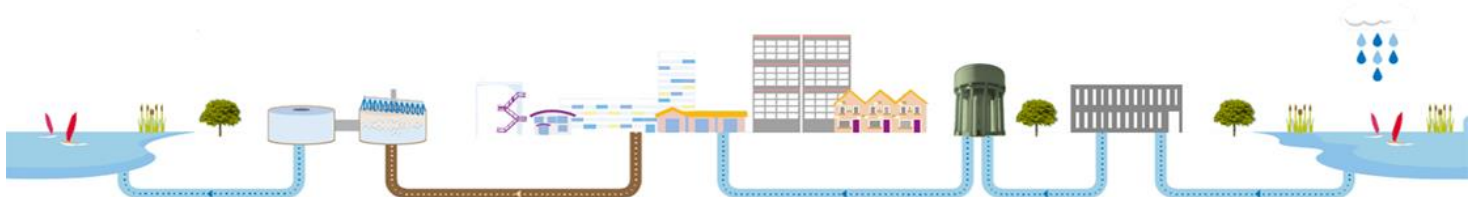
#### 1.1 Anglian Water Trade Effluent Samplers

All Anglian Water Trade Effluent samplers are trained to take Trade Effluent samples and assessed as competent. This assessment is regularly reviewed.

#### 1.2 Purpose of Trade Effluent Sampling

Samples are taken for two reasons;

- i) To check NHHCs are complying with the terms of the Consent
- ii) To provide data to raise a Wholesale Charge



These are covered in more detail below.

### 1.3 Types of Samples

A spot sample is a single or 'grab' sample. A composite sample is one made up of various grab samples normally taken over a set time period. In some cases a composite can be taken over a set period of flow, for instance one sample for every 100 m<sup>3</sup> discharged. These are called flow proportional composite samples.

### 1.4 Frequency of Trade Effluent Sampling

The frequency of effluent compliance and Wholesale charging samples are independent of each other and both are based on set criteria to ensure we are fair to all.

When we sample for compliance we will analyse some or all of the chemicals (referred to as determinands) on the Consent. Every determinand on each Consent will be analysed at least once a year. The frequency that any determinand is analysed for is set, objectively, depending on the risk the discharge poses to Anglian Water.

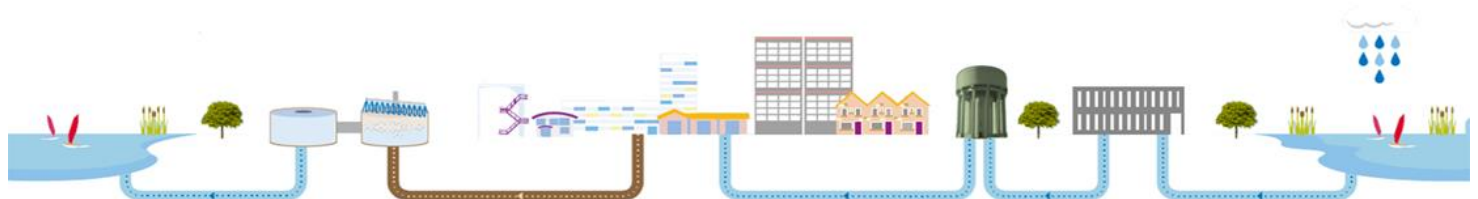
### 1.5 Analysis of Samples

When a sample is taken to raise a Wholesale charge, it will be analysed for settled Chemical Oxygen Demand (COD) and Total Suspended Solids (TSS); the two determinands that are used to raise a Trade Effluent Wholesale charge via the Mogden formula.

When practical Anglian Water will combine the sample visit to check compliance and for charging but if the frequencies are different we may sample just for one purpose.

### 1.6 Supplying Sample Results

Anglian Water routinely pass sample results to the NHHC and their Retailer within 1 day of the sample analysis being completed and checked, as per Market Codes. All sample results are available for Retailers to view via the Retailer portal, the NHHC will receive directly the results of all compliance samples by e-mail. Where we do not have a valid e-mail address we will inform the NHHC by letter of our inability to



send results and retain them awaiting a response.

For compliance samples, the result will include every analysed determinand on the Consent, but for charging samples only COD and TSS will be analysed for.

If a Retailer or a NHHC requests extra sample results, for instance in preparation for an audit, a charge is made to prepare and send these. These are laid out in our published Wholesale Scheme of Charges.

## 1.7 Quality of the Results

All analysis is carried out at accredited laboratories and will only be used to assess compliance and/or for charging if they pass the standards required by the Laboratory. These standards include preservation and transportation from the NHHC's site.

## 2. Compliance Sampling

Where samples are taken to check for compliance against the limits on the Consent document, these will be taken at random intervals and will generally be spread evenly throughout the year.

The frequency at which we routinely attend premises for an inspection visit and take a sample solely to compare against the consent (and not to raise a charge) is determined by a risk model (Trade Effluent Risk Assessment –TERA) we have been using in Anglian Water for several years. This model takes into account factors such as the type of process being undertaken on site, the values on the Consent and the relative size of the sewerage catchment being discharged into.

The number of visits in a year (sometimes referred to as the 'TERA score') may be as high as 48 or as low as 0.

Anglian Water regularly reviews the TERA model to improve its relevance in the light of experience or in response to new regulatory drivers and this may result in a new TERA score. Similarly, if a NHHC becomes non-compliant against their discharge limits, this may result in a higher TERA score and so more visits.

In exceptional circumstances, for instance, where there is a pollution incident or where a discharge is impacting on Anglian Water's assets, then more visits will be planned and more samples taken over and above the TERA score.



All samples taken for compliance will be spot samples not composite.

The attendance on site to obtain a sample will not always result in a sample being taken; there may be no discharge taking place. In such cases the visit will be recorded as a 'no flow' and be regarded as a 'sample' visit for the purposes of TERA frequency. We may attempt to obtain an actual sample at a later date in place of the 'no flow' so as to obtain a value.

A Consent may contain a range of chemicals (determinands) on it and the Wholesaler will test the most relevant ones each time a sample is taken, and for all of them, at least once a year.

If the Wholesaler suspects that a discharge is of poor quality, then a 'formal sample' may be taken. This is the same process as taking any other spot sample, but the details are recorded more extensively. The taking of a formal sample is ideally witnessed by a representative of the Discharger and who is requested to choose a sample so they may have it analysed themselves. A formal sample can still be taken if a representative is not present at the moment of collection. A representative of the Discharger is legally cautioned.

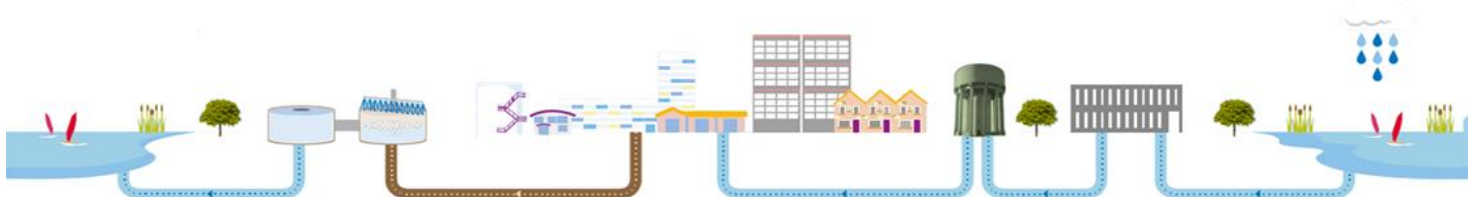
### 3. Sampling for Charging

See also the 'Wholesale Charging Guidance'

Where samples are taken to raise a charge, these will be taken at random intervals and will normally be spread evenly throughout the year. The frequency of sampling is based on the financial value of the discharge.

In all cases where Catchment Quality representatives attend site for an inspection visit with the intention of taking a sample for charging purposes and there is a discharge, then the sample must be taken. Samples will not be postponed (or conversely a sample taken if one had not originally been intended) because of the quality of the effluent. For instance, if it is exceptionally 'clean' or exceptionally 'dirty'.

The attendance on site to obtain a sample will not always result in a sample being taken, often there may be no discharge taking place. In such cases the visit will be recorded as a 'no flow' and be regarded as a 'sample' for the purposes of meeting



the required sampling frequency. We may attempt to obtain an actual sample at a later date to replace the 'no flow' so as to obtain a value.

