

Development Services Drainage

Adoptable pumping station design criteria

We will require adoptable pumping stations to be designed using Anglian Water's criteria for the assessment of foul flows as stipulated below. This document forms part of our Local Practice for Pumping Stations.

The criterion to be used is as follows:

- **2.35 persons per property**
- **125 litres per head per day**
- **25% infiltration**

The above should be used with the number of properties to calculate the Dry Weather Flow (DWF)

- **Pump rate = 4 x DWF**
- **Emergency storage = 4 hours at 1DWF**
- **The peak inflow is considered to be 2.12 x DWF**

The above criteria are based on actual water consumption figures and represent a realistic assessment of foul flows generated by new developments. This is not a pumping restriction and the use of this criterion does not necessitate an additional storage requirement over and above the emergency storage requirement outlined above.

Example for 1000 unit development (Comparative SFA figures in brackets)

- **DWF = 1000 x 2.35 x 125 x 1.25 / 86400 = 4.25l/s**
- **Pump rate = 4 x 4.25l/s = 17l/s (46l/s)**
- **Storage volume = 4.25 x 60 x 60 x 4 = 61,200 litres (160,000 litres)**

The above methods are used to achieve consistency between flow assessments made as part of our pre-planning process and adoptable pumping stations delivered by developers.

The use of realistic criteria also leads to smaller pumps and associated power costs, smaller rising mains and a lower emergency storage requirement.

Please refer to the Design Construction Guidance (DCG) and Anglian Water's Local Practice for Pumping Stations for all other aspects of the pumping station design.