

Calculation of Average Dry Weather Flows

Separate foul and surface water systems will be constructed at the proposed development.

Albion has used the industry standard consumption rate of 150 litres/person /day to estimate the flows to the proposed works. However it has data from another site which indicates a consumption rate of around 120 litres per person per day is more realistic for new built properties which are metered and incorporate all the latest water saving devices.

Therefore given the consumption rate is conservative and the sewage network will be new an Infiltration element has not been included in the initial calculation.

Domestic

1600 domestic plots with occupancy rate of 2.5 persons/plot using 150 litres per day =
600 cubic meters/day

Retail & Commercial

Retail, commercial and public usage estimated at 800 population equivalent using 150 litres/day
=120 cubic meters/day

Process Losses and Average Dry Weather Flow Discharged

Calculations estimate the process will generate approximately 12 cubic meters /day of sludge.
Therefore the average DWF discharged is $720 - 12 = 708$ *cubic meters/day*.

Maximum Discharge Rate

A landscaped balancing pond will be constructed adjacent to the proposed plant. This pond will limit the peak flow to 17 litres per second i.e. approximately 2 X DWF.