

Discharge calculations

As this variation is to combine both permits into one permit for the site, these figures will be based on our abstraction license 11/42/18.2/72 which sets out parameters for water use on site.

Abstraction license 11/42/18.2/72 total quantity:

7,460,865 m₃ per year

22,285 m₃ per day

928 m₃ per hour = 928,000 litres per hour

257.7 litres per second

The HRA doc 002 section 2.2.6 pages 6-7 states that approximately ¾ of water discharges from site through Outlet 1 in the Eastern channel and ¼ discharges from Outlet 2 in R block.

Calculations

ref		Annual m ₃	Daily m ₃	Hourly m ₃	Instantaneous l/s
A	Total volume abstracted	7,460,865	22,285	928	257.7
A*25%	P.05767 (1/4)	1,865,216.25	5,571.25	232	64.23
A*75%	P.05768 (3/4)	5,595,648.75	16,713.75	696	193.47

Rainfall and added groundwater to the effluent make it impossible to calculate these additions and also impossible to install a reliable flow measure device. Therefore all calculations are based on the abstraction licence quantities and these are measured through meters on the boreholes.