

Period	Mean Flow (m ³ /s)	Q number (%)	Flow (m ³ /s)
Annl	17.32756831	5	54
Jan	31.45	10	39
Feb	26.30	15	32
Mar	19.55	20	26
Apr	14.99	30	19
May	10.14	40	14
Jun	8.22	50	11
Jul	6.74	60	8
Aug	7.24	70	7
Sep	9.28	80	5
Oct	19.00	90	4
Nov	25.55	95	3
Dec	30.25	99	2

Table 1: Anticipated flows throughout the year for the defined catchment

The following graph shows the amount of water predicted to be flowing past the proposed hydro intake throughout the year. The water flow predictions are produced by WHS Lowflows modelling and the predicted flows are based on historical average rainfall data and do not represent water flow that may occur during unusually dry or wet years.

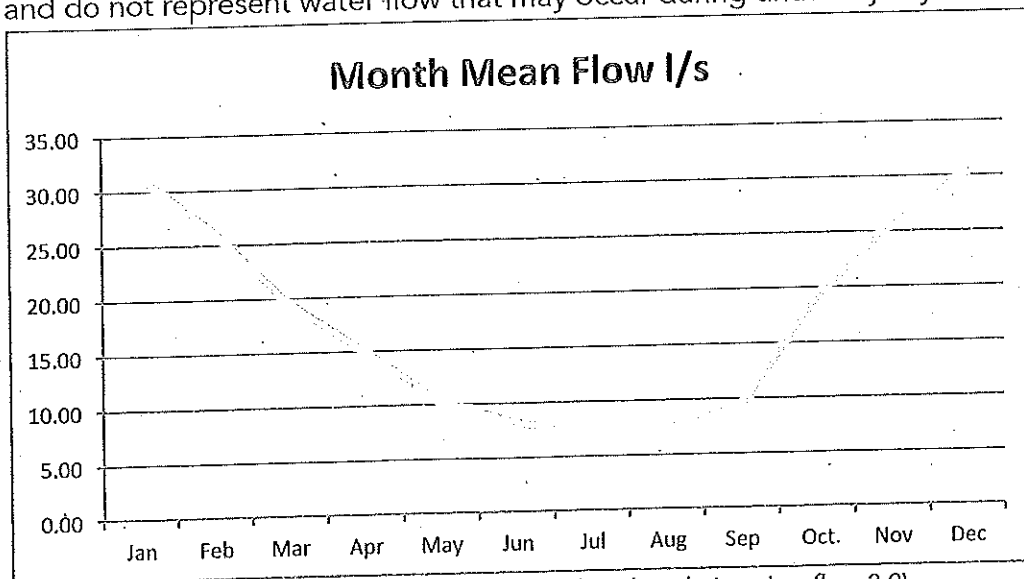


Fig 1. Graph of Seasonal Flow (Source Wallingford Hydrosolutions Lowflow 2.0)

Calculates How Much Water The System Will Use								
% of year flow will be exceeded	Period Flow Rate (l/s)	Q95 Adjusted Flow (l/s)	Allowed Abstraction flow from Q95 Flow	TGV Design Abstraction flow (l/s)	% of Allowed flow used by TGV design	Residual Flow in Watercourse Above HOF (l/s)		Abstracted Volume M ³
100%	2.00	0.00	0.00	0.00	0.00	2.00	100%	0
95%	3.00	0.00	0.00	0.00	0.00	3.00	100%	0
90%	3.50	0.50	0.50	0.00	0.00	3.50	100%	0
85%	4.00	1.00	1.00	0.00	0.00	4.00	100%	0
80%	4.50	1.50	1.50	1.50	1.00	3.00	67%	2,365
75%	5.50	2.50	2.50	2.50	1.00	3.00	55%	3,942
70%	6.50	3.50	3.50	3.50	1.00	3.00	46%	5,519
65%	7.25	4.25	4.25	4.25	1.00	3.00	41%	6,701
60%	8.00	5.00	5.00	5.00	1.00	3.00	38%	7,884
55%	9.25	6.25	6.25	6.25	1.00	3.00	32%	9,855
50%	10.50	7.50	7.50	7.50	1.00	3.00	29%	11,826
45%	12.25	9.25	9.25	9.25	1.00	3.00	24%	14,585
40%	14.00	11.00	11.00	11.00	1.00	3.00	21%	17,345
35%	16.25	13.25	13.25	13.25	1.00	3.00	18%	20,893
30%	18.50	15.50	15.50	15.50	1.00	3.00	16%	24,440
25%	22.00	19.00	19.00	17.33	0.91	4.67	21%	27,322
20%	25.50	22.50	22.50	17.33	0.77	8.17	32%	27,322
15%	32.25	29.25	29.25	17.33	0.59	14.92	46%	27,322
10%	39.00	36.00	36.00	17.33	0.48	21.67	56%	27,322
5%	54.00	51.00	51.00	17.33	0.34	36.67	68%	27,322

% of year flow will be exceeded	Calculates Head Loss in Pipe					Calculates Power Produced			
	Gen Start Up Flow m ³ /sec	1 Water Velocity In pipe (m/s)	Composite Head Loss	Adjusted head (m)	% head loss	Design Power Mid (Kw)	Design Power High (Kw)	Design Annual (kWhrs) Mid	Design Annual (kWhrs) High
100%	0.000	0.000	0.00	50.00	0.00%	0.00	0.00	0	0
95%	0.000	0.000	0.00	50.00	0.00%	0.00	0.00	0	0
90%	0.000	0.000	0.00	50.00	0.00%	0.00	0.00	0	0
85%	0.000	0.000	0.00	50.00	0.00%	0.00	0.00	0	0
80%	0.002	0.096	0.02	49.98	0.05%	0.55	0.59	242	258
75%	0.003	0.160	0.06	49.94	0.11%	0.92	0.98	402	429
70%	0.004	0.224	0.10	49.90	0.20%	1.28	1.37	563	600
65%	0.004	0.272	0.14	49.86	0.28%	1.56	1.66	683	728
60%	0.005	0.319	0.19	49.81	0.38%	1.83	1.95	803	856
55%	0.006	0.399	0.28	49.72	0.56%	2.29	2.44	1001	1068
50%	0.008	0.479	0.39	49.61	0.78%	2.74	2.92	1199	1279
45%	0.009	0.591	0.57	49.43	1.14%	3.36	3.59	1473	1572
40%	0.011	0.703	0.78	49.22	1.57%	3.98	4.25	1745	1861
35%	0.013	0.846	1.10	48.90	2.20%	4.77	5.08	2088	2227
30%	0.016	0.990	1.47	48.53	2.94%	5.53	5.90	2424	2586
25%	0.017	1.107	1.81	48.19	3.61%	6.14	6.55	2691	2871
20%	0.017	1.107	1.81	48.19	3.61%	6.14	6.55	2691	2871
15%	0.017	1.107	1.81	48.19	3.61%	6.14	6.55	2691	2871
10%	0.017	1.107	1.81	48.19	3.61%	6.14	6.55	2691	2871
5%	0.017	1.107	1.81	48.19	3.61%	6.14	6.55	2691	2871