

**Appendix 9-5  
 Discharge of Groundwater to River Yealm Based on Darcy Flux**

Equation	Q =	Kiwb	From Darcy		
			Description	Unit	Source
<b>Where</b>	Q =	?	Flow rate	m <sup>3</sup> /day	
	K =	See below	Hydraulic conductivity	m/day	Hydraulic conductivity testing of on site boreholes, Section 9.51 of report
	i =	0.1	Hydraulic gradient	Dimensionless	Drawing 9/6
	w =	300	Width of flow	m <sup>2</sup>	Width of outcrop adjacent to River Yealm
	b =	15	Mean saturated thickness	m	Assumed
<b>Results</b>					
	K m/s	Q cumecs	Q litres/s	m <sup>3</sup> /day	
Minimum	3.71E-08	0.00002	0.02	1.44	
Maximum	3.13E-06	0.00141	1.41	122	
Mean	7.80E-07	0.00035	0.35	30	