


CALCULATION SHEET

Client: Bryntysilio	Site: Bryntysilio	Project: Effluent volumes	Caulmert 	
Made by: DR High	Date: 26/03/2025	Checked by:	Date:	Sheet no.: 1
Approved by:	Date:			

Bryntysilio Outdoor Education Centre

Volume of discharge in revoked NRW permit ref WQD002056 13.6 Cu m/day

Volume of water used December 2023 to December 2024 (from meter reading) 885 Cu m

Volume of water used December 2024 to 25 March 2025 (from meter reading) 195 Cu m

Average volume of water used $\frac{885}{365} = 2.42$ Cu m/ day
Dec 24 to Dec 25

Average volume of water used $\frac{195}{84} = 2.32$ Cu m/ day
Dec 25 to 25 Mar 25

Actual use 25/3/25 from client email 26/3/25 4.53 Cu m

58	Young people	Visitors
5	Staff	Visitors
2	Kitchen staff	Day staff
5	Instructors	Day staff
3	Hwb staff	Day staff
3	Residents	Standard residential
5	Staying in Lodge	Visitors


Data on effluent produced taken from Flow & Loads 4

Usage	Number	per head/ day			per use/ day		
		Flow (l)	BOD(g)	Ammonia as N	Flow (l)	BOD(g)	Ammonia as N
Standard residential	3	150	60	8	450	180	24
Day staff	10	60	25	5	1200	500	100
Visitors	68	100	44	8	6800	2992	544
TOTAL					8450	3672	668

Day staff figures as 'open industrial site, eg construction, quarry, without canteen'

Visitor figures as 'caravan sites, touring, not serviced'

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Bryntysilio Outdoor Education Centre (continued)

Estimated volume of water generated using data from Flows & Loads 4 is an over estimate

Volume of water used 25/3/25 was 4.53 Cu m

This is $\frac{4.53}{8.45} = 54\%$ of the volume predicted by F & L

Table below is pro-rata of Flows & Loads Data to reflect actual water consumption

Usage	Daily total		
	Flow (l)	BOD(g)	Ammonia as N
Flows and Loads	8450	3672	668
54% of F & L values	4530	1969	358

Projected use from client email 26/3/25

100	Young people	Visitors
10	Staff	Visitors
4	Kitchen staff	Day staff
5	Instructors	Day staff
6	Hwb staff	Day staff
6	Residents	Standard residential
5	Staying in Lodge	Visitors

Data on effluent produced taken from Flow & Loads 4

Usage	Number	per head/ day			per use/ day		
		Flow (l)	BOD(g)	Ammonia as N	Flow (l)	BOD(g)	Ammonia as N
Standard residential	6	150	60	8	900	360	48
Day staff	15	60	25	5	1800	750	150
Visitors	115	100	44	8	11500	5060	920
TOTAL					14200	6170	1118

Usage	Daily total		
	Flow (l)	BOD(g)	Ammonia as N
Flows and Loads	14200	6170	1118
54% of F & L values	7613	3308	599

Predicted volumes for full occupancy