Water Neutrality Statement Lock House

10 June 2025

Introduction

1.1 This Water Neutrality Statement (WNS) has been prepared on behalf of Cosmo Empire Limited to demonstrate how the proposed development of a holiday lodge at Lock House, Partridge Green, will achieve water neutrality.
1.2 Following the issue of Natural England's (NE's) Position Statement on Water Neutrality within the Sussex North Water Supply Zone (SNWSZ) it is understood that Horsham District Council (HDC) require all new and reserved matters planning applications to demonstrate that a development within the SNWSZ can be water neutral.
1.3 The SNWSZ covers part of the Horsham District, as well as parts of the neighbouring Chichester, Arun and Crawley Districts. A plan showing the supply area can be found in Appendix A.
1.4 This WNS sets out the following:
a. Baseline calculations for the existing development;
b. Additional demand as a result of the proposed development;
c. What water reduction measures have been employed, such as water efficient fixtures and fittings

Background

2.1 The proposed development is located at Lock House, Lock Lane, Partridge Green (RH13 8EG).
2.2 The site has been consented previously for a stable block.
2.3 The proposed development will provide an 8 bedroom holiday let unit with large sitting room..
2.4 This statement relates to the proposed holiday let

Baseline Calculations

3.1 The existing proposed conversion of Lock House per planning consent DC/25/0037 has a baseline accepted use of 1,783.3 litres per day and a proposed use of 1,223.2 litres per day based upon 110 litres/person per day. The existing consented use leaves a water credit of 560.1 litres per day.
3.2 The proposed conversion of 2 No. buildings to holiday lets per planning consent DC/25/0359 uses 334.95 litres per day leaving a remaining water credit of 225.25 litres per day.
3.3 Actual metered water use since 23 January 2025 has a baseline use of 2,902.38 litres per day as evidence by the meter readings shown in Appendix B1. On the basis of Actual metered use the remaining water credit following implementation of DC/25/0037 and DC/25/0359 is 1,344.23 litres per day.

Additional Demand

4.1 As previously defined, the proposed redevelopment of the site will provide an 8 bedroom holiday let

4.2 Part G of the current Buildings Regulations recommends that all developments achieve a 'water efficient' consumption of 125 litres per person per day. This water consumption figure can be used with the population of the proposed development to calculate what the future demand is likely to be.

The occupancy levels for the development have been drawn from local census data (as recommended by HDC in their water neutrality methodology guidance) and this is summarised in Table 4.1 below.

1 Bed	2 Bed	3 Bed	4 Bed	5 Bed
1.32	1.88	2.47	2.86	3.09

Table 4.1 – Average district occupancy levels per dwelling size

4.4 Using the above census data and the housing mix defined above, the population of the proposed development is estimated to be 3.09 persons when fully let so on the basis of annual occupancy of 70% 2.163 persons.

4.5 Using the Building Regulations water consumption figure of 125 litres per person per day and population size of 2.163, it is estimated that the total water usage per day for the proposed development would be 270.38 litres per day.

4.6 Therefore, following the development there is a deficit of 45.125 litres per day using the baseline use accepted by DC/25/0037. At this stage, the proposed development cannot be considered to be water neutral.

4.7 Based on actual metered use with the remaining water credit of 1,344.23 litres per day following the implementation of DC/25/0037 and DC/25/0359 the proposed development results in a water credit remaining of 1,073.85. At this stage, the proposed development can be considered to be water neutral.

Policy 37 Horsham District Planning framework

Water reduction measures are proposed to reduce the water consumption below 110 litres per person per day as set out below. However, for these calculations 110 litres per person per day has been allowed.

Based upon 70% occupancy this will lead to proposed water use of 237.93 litres per day.

On this basis the development is not water neutral with a deficit of 12.68 litres per day based on the baseline use approved under DC/25/0037.

However, based on the actual metered use for the baseline the remaining water credit is 1,106.30 and the development can be considered water neutral.

Water Reduction Measures

5.1 To further minimise the demand on the mains water, it is proposed that the new dwellings will achieve a water efficiency of less than 110 litres per person per day of water, which will be in accordance with the optional water efficiency target set out in the Building Regulations Part G. This will be achieved through the use of water efficient fixtures and fittings.

5.2 A water calculation in accordance with Buildings Regulations Part G has been carried out and confirms that the proposed dwellings will achieve a water consumption of 84.45 litres per person per day, which includes an allowance of 5

litres per person per day for external water usage. A copy of the Part G calculation can be found in Appendix D and is summarised in Table 5.1, below:

	Total Water Usage (l/p/day)
WC (full flush)	5.84
WC (part flush)	5.92
Taps (Excluding Kitchen)	5.85
Shower	26.22
Bath	14.30
Kitchen Taps	12.12
Washing Machine	13.50
Dishwasher	3.56
Total	87.31
Normalisation Factor	0.91
Total	79.45
External Water Use	5
Total	84.45

Table 5.1 – Water Usage

5.3 A copy of the proposed fixtures and fittings to achieve the above water consumption can be found in Appendix D.

5.4 Using the Part G water consumption figure of 84.45 litres per person per day and the census-based development population of 3.09 at 70% occupancy it is estimated that the mains water demand per day for the proposed development can be reduced to 182.67 litres per day.

5.5 Therefore, following the redevelopment of the site, there will be a net water credit remaining of 43 litres per day based on the baseline water use accepted for DC/25/0037. At this stage, the proposed development can be considered to be water neutral.

5.6 Based on actual metered use with the remaining water credit of 1,344.23 litres per day following the implementation of DC/25/0037 and DC/25/0359 the proposed development results in a water credit remaining of 1,161.56 litres per day. At this stage, the proposed development can be considered to be water neutral.

Summary and Conclusions

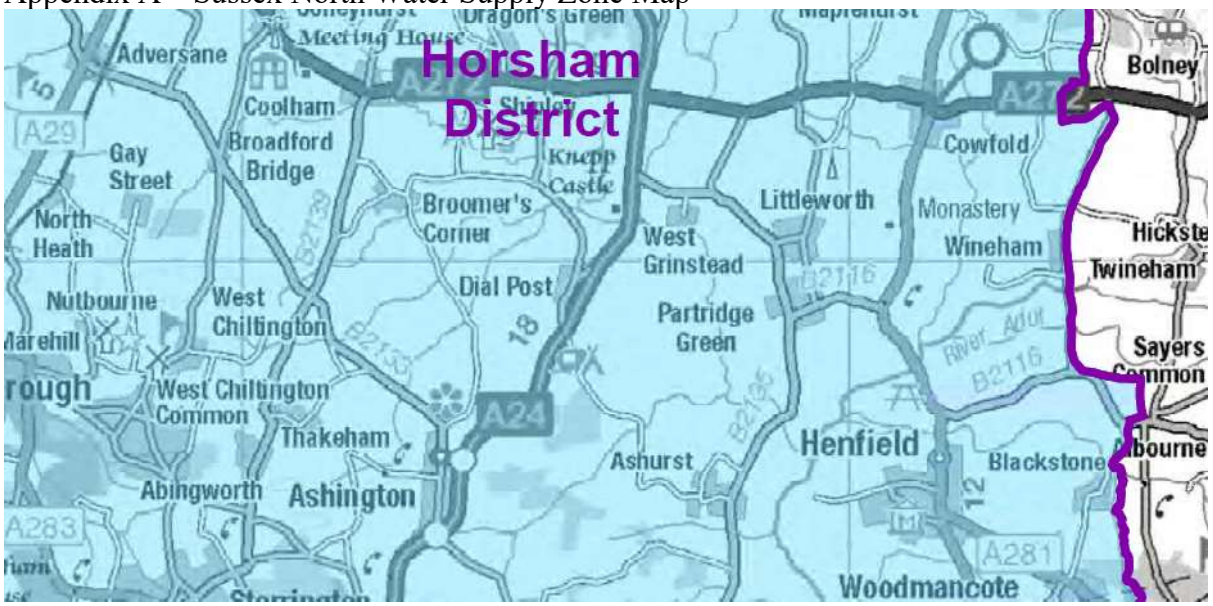
7.1 This Technical Note sets out the water usage strategy for the proposed development at Lock House, Lock Lane, Partridge Green.

7.2 The proposal is to incorporate water efficient fixtures and in the proposed dwelling, in order to minimise the mains water demand of the proposed development.

7.3 The proposed development represents a net decrease in water demand within the SNWSZ.

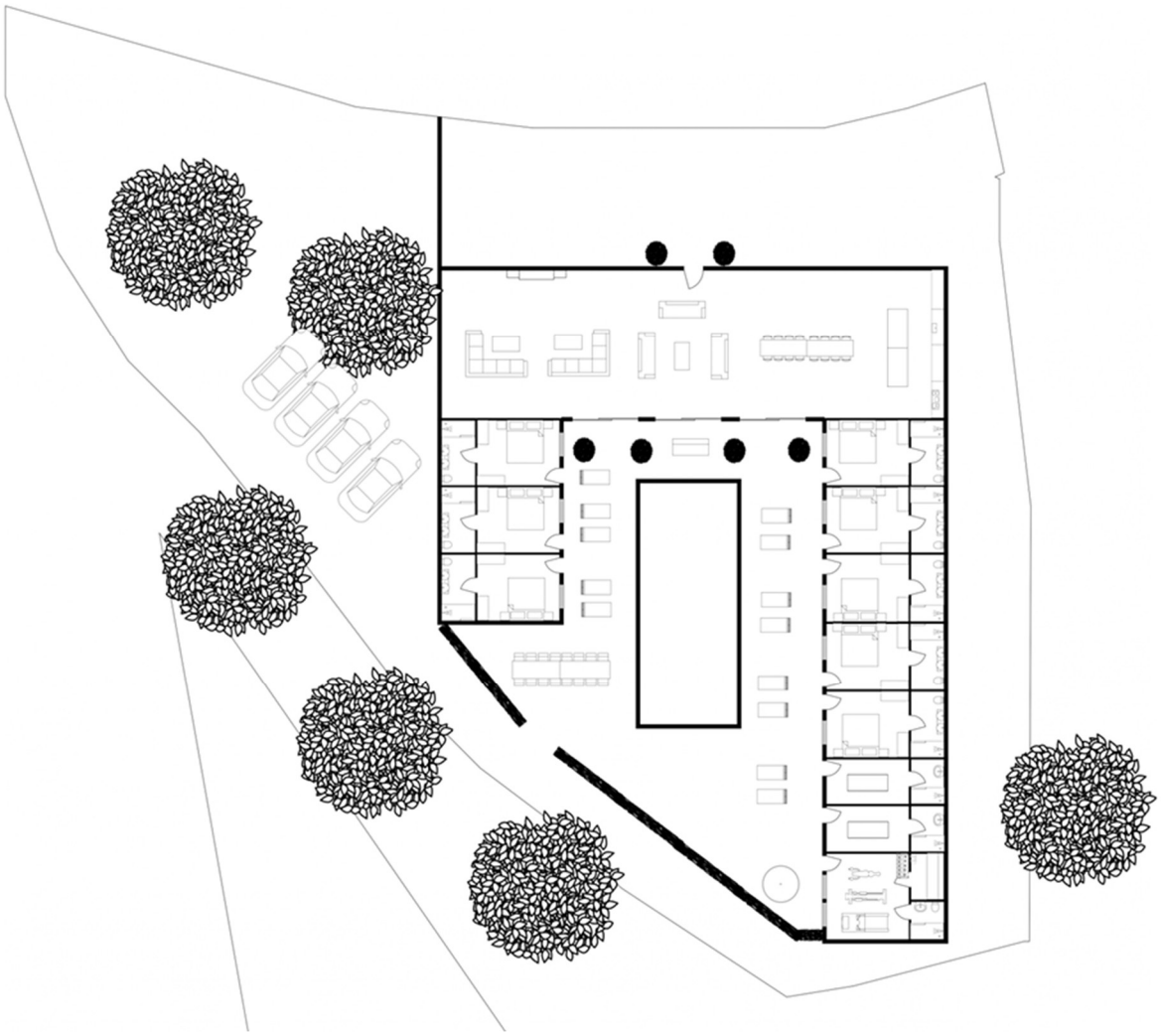
7.4 This strategy will minimise the impact of the new development on the SNWSZ. This WNS confirms the proposal will be water neutral once complete and therefore satisfying NE’s requirements.

Appendix A – Sussex North Water Supply Zone Map



Appendix B

Proposed plans



Appendix B1

LOCK HOUSE – DC/25/0359

WATER NEUTRALITY CHECK METER USE

In accordance with Horsham District Council's guidance "Water neutrality and planning applications" updated 16 January 2025 which states:

"Baseline Calculations

It is critical that the statement clearly establishes what the baseline water consumption rate is for the existing or most recent use. Where historic water bills for the site are not available, alternative data using the Building Regulations Part G or BREAM water calculators should be used, along with appropriate occupancy rates and consumption data for any industrial processes being undertake at the site. The data should be presented in litres per person per day. Further information is set out separately below. It is critical that existing baseline consumption is fully evidence to give certainty of the actual mains water being use at a site. Metered water bills are the best way to achieve this certainty .....

For residential schemes, we will expect to see water consumption calculations for any existing use of the site, and the proposed use. These must be set out in litres per person per day (l/p/d). Where an existing residential dwelling is to be demolished/replaced, copies of recent metered water bills within the last three years is the best evidence of existing consumption. Where water bills are not available, a survey of all existing fixtures and fittings that evidences their current water consumption rate should be provided within a Building Regulations Part G water calculator or equivalent. The calculator should be supported with photographs of the fixtures and fittings, and an explanation of the methodology used to calculate the flow rates etc. The resultant per person water consumption figure should then be multiplied by the current number of occupants or, if the dwelling is vacant, the average occupancy rate for that size of dwelling"

The water neutrality statement has been prepared in accordance with this guidance because the water supply to Lock House is not metered.

However, a check water meter was installed on 23 January 2025 and photos have been taken to record actual consumption:

Date	Opening reading (m3)	Closing reading (m3)	Use - Litres	Use Litres/day	Photo of meter
23 January 2025	-	0	0		
30 January 2025	0	19.5771	19,577	2,796.71	
6 February 2025	19.5771	38.3524	18,775	2,682.14	
13 February 2025	38.3524	55.7163	17.3639	2,480.56	

23 April 2025	55.7163	210.2484	154,532	2,239.60	
30 May 2025	210.2484	397.6275	187.3791	5,064.30	
average 23 Jan 2025 – 30 May 2025	0	397.6275	397,627.5	2,902.38	

Baseline water use per the survey in the water neutrality statement is 1,783.30 litres per day which compares with actual water consumption for the period since the water meter was installed of 2,902.38 litres per day.

Appendix C – Part G Calculations

Part G - Flow Survey

Fixture	Capacity/Flow Rate	Use Factor	Fixed Use	litres/person/day
WC (Single Flush)		4.42		0.00
WC (Dual Flush)	10.5	1.46		15.33
WC (Dual Flush) Part	5.25	2.96		15.54
Taps (excluding kitchen)	5	1.58	1.58	9.48
Bath (where shower present)	190	0.11		20.90
Shower (where bath present)	6	4.37		26.22
Bath Only		0.5		0.00
Shower Only		5.6		0.00
Kitchen Sink	8	0.44	10.36	13.88
Washing Machine	7	2.1		14.70
Dishwasher	0.8	3.6		2.88
Total calculated use (litres/person/day)				118.93
Normalisation Factor				0.91
Total Water Consumption (CSH) (litres/person/day)				108.23
External Water Use				5.00
Total Water Consumption (Part G) (litres/person/day)				113.23

Mains Water	113.23	litres/person/day
Total	113.23	litres/person/day

	Census	No. Units	Population	Mains Water Usage
Existing 1-bedroom	1.32	1.00	1.32	149.46
Existing 14-bedroom	13.00	1.00	13.00	1,734.96
	Totals	**2.00**	**14.32**	**1,884.41**

Existing Swimming Pool - Water Usage

	Width (m)	Length (m)	Average Depth (m)	Volume (m^3)	Volume (Litres)	Water Usage (litres per day)
Swimming Pool	5	12	1.6	96	96,000	**263.01**

Appendix D – Proposed water usage

Part G - Proposed Water Usage

Fixture	Capacity/Flow Rate	Use Factor	Fixed Use	litres/person/day
WC (Single Flush)		4.42		0.00
WC (Dual Flush)	4	1.46		5.84
WC (Dual Flush) Part	2	2.96		5.92
Taps (excluding kitchen)	2.7	1.58	1.58	5.85
Bath (where shower present)	130	0.11		14.30
Shower (where bath present)	6	4.37		26.22
Bath Only		0.5		0.00
Shower Only		5.6		0.00
Kitchen Sink	4	0.44	10.36	12.12
Washing Machine	6.43	2.1		13.50
Dishwasher	0.99	3.6		3.56
	Total calculated use (litres/person/day)			87.31
Normalisation Factor				0.91
Total Water Consumption (CSH) (litres/person/day)				79.45
External Water Use				5.00
Total Water Consumption (Part G) (litres/person/day)				84.45

	Units	Census	Population At 70% occupancy	Mains Water usage		
Proposed 5 bed dwelling	1	3.09	2.163	182.67		
Totals	1	3.09	2.163	182.67		

Fixtures and Fittings - Part G Specifications

Item	Capacity/Flow rate	Overview
Toilet (Dual Flush)	4/2 litres	The Gap 
Basin Tap	2.7 litres/minute	Joseph Miles 
Bath	130 litres	Ideal Standard 
Shower	6 litres/minute	Triton 

Kitchen Sink	4 litres/minute	Tap with flow regulator - Affinity by Moores  Utility Chrome utility lever sink mixer tap Tap Height: 380mm Order code: 805 56 Flow Regulator: