

Introduction

1.1 This Water Neutrality Statement (WNS) has been prepared on behalf of Cosmo Empire Limited to demonstrate how the proposed development of the roof extension to unit 1 increasing it from a 3 bedroom house to a 5 bedroom house, and the extension to the garage house making it a 4 bedroom house instead of a 3 bedroom house 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 currently consists of a fourteen-bed house with an exterior one-bed studio-garage, plus an outdoor and indoor swimming pool and surrounding land.

2.3 The proposed redevelopment of Lock House will provide 4no. total units. 3no. units from the existing fourteen-bed house, consisting of 1no. three-bed dwellings and 2no. five-bed houses. It will also provide 1no. unit from the existing one-bed studio garage, consisting of 1no. three-bed house.

2.4 This statement relates to the proposed roof extension and garage house extension.

Baseline Calculations

3.1 The baseline use metered for the period 23 January 2025 to 17 November 2025 is 2,480.24 litres per day as analysed with the photographed meter readings in Appendix B1.

3.2 Using Building regulations standards of 125 litres per day planning consent DC/25/0037 has a use of 1,390 litres per day and planning consent DC/25/0359 has a use of 380.625 litres per day leaving a remaining water credit of 755.29 litres per day.

3.3 Using HDC standards of 110 litres per day planning consent DC/25/0037 has a use of 1,223.2 litres per day and planning consent DC/25/0359 has a use of 335 litres per day leaving a remaining water credit of 922.04 litres per day.

3.4 On the basis of the grant of the planning consent for the 'super holiday cottage' application submitted the use is 270.38 litres per day leaving a remaining water credit of 484.91 based on building regulations standards of 125 litres/person/day and 237.93 litres per day leaving a remaining water credit of 684.11 based on HDC standards of 110 litres/per/day.

Additional Demand

4.1 As previously defined, the proposed redevelopment of the site will provide a 5 bedroom house instead of a 3 bedroom house through the roof extension and a 4 bedroom house instead of a 3 bedroom house through the garage extension.

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 increase by 0.62 by the roof extension and 0.39 by the garage extension totalling 1.01.

4.5 Using the Building Regulations water consumption figure of 125 litres per person per day and population size of 1.01, it is estimated that the total water usage per day for the proposed development would be 126.25 litres per day.

4.6 Therefore, following the extensions there will remain a water credit of 358.66 litres per day. 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.

This will lead to proposed water use of 111.1 litres per day.

On this basis the development is water neutral with a water credit remaining of 573.01 litres per day.

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 1.01 it is estimated that the mains water demand per day for the proposed development can be reduced to 85.29litres per day.

Summary and Conclusions

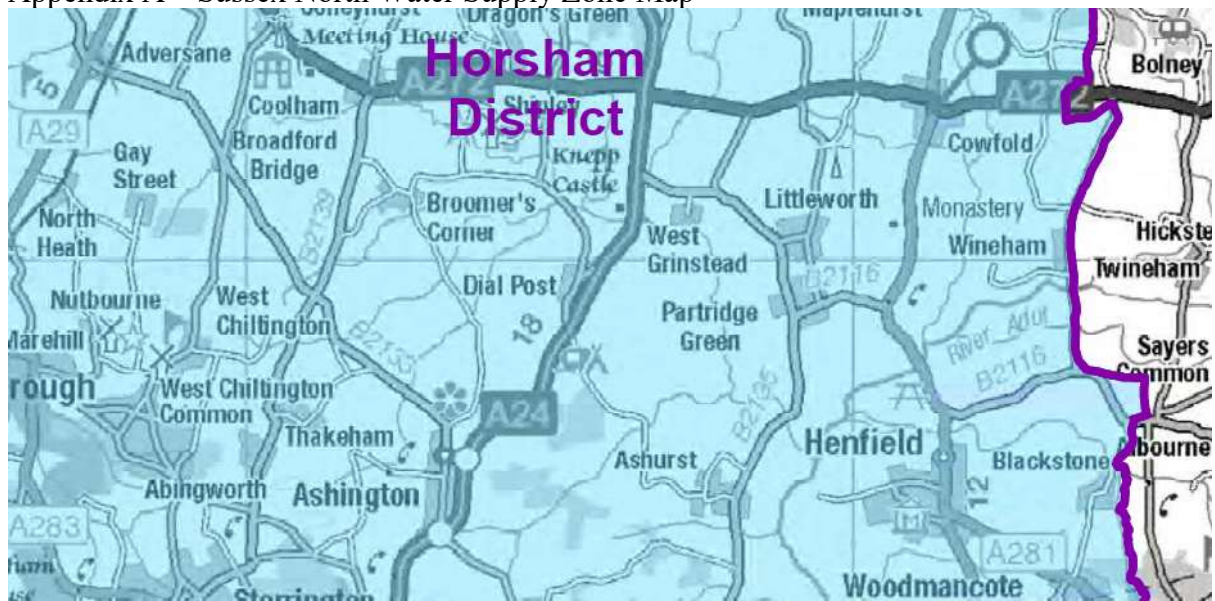
7.1 This Technical Note sets out the water usage strategy for the proposed development at Lock House, Lock Lane, Partridge Green.

7.2 The proposal is to incorporate water efficient fixtures and in the proposed dwellings, 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.

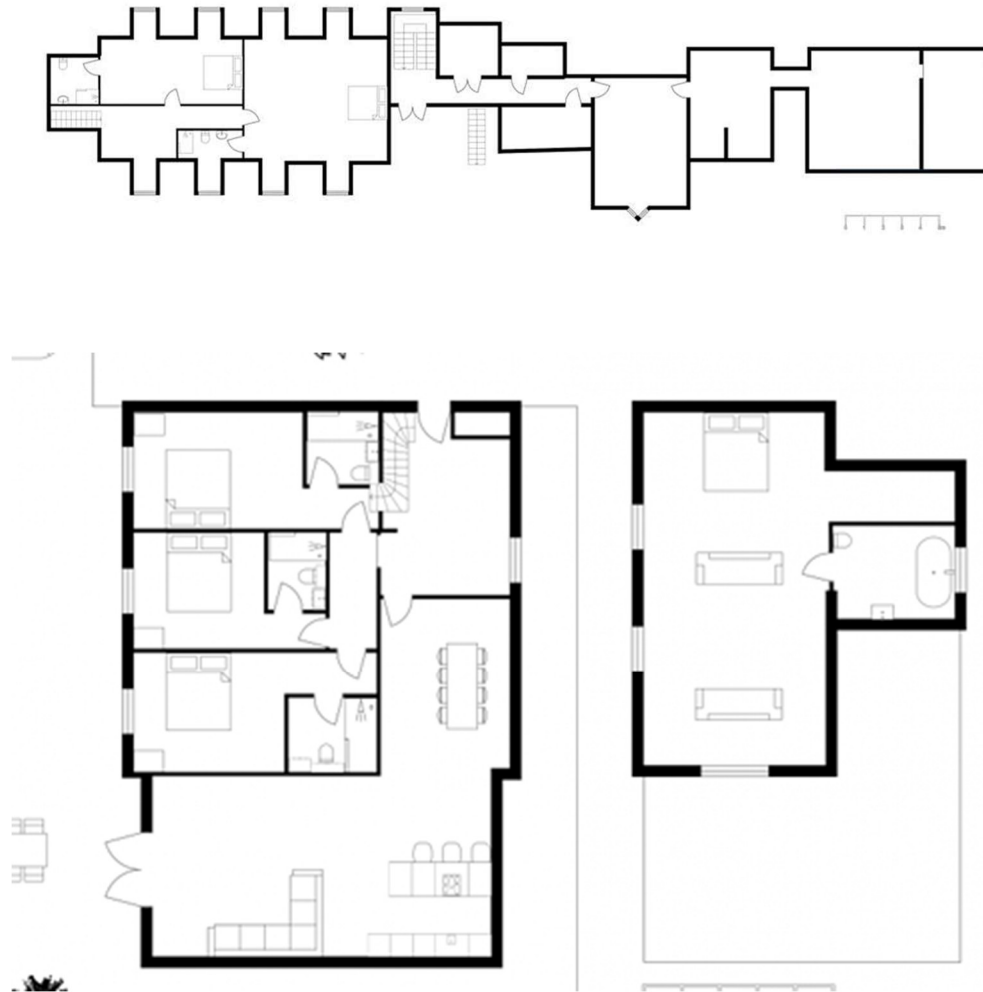
7.4 This strategy will minimise the impact of the new development on the SNWSZ. This WNS confirms the proposal will be water neutral once complete and therefore satisfying NE's requirements.

Appendix A – Sussex North Water Supply Zone Map

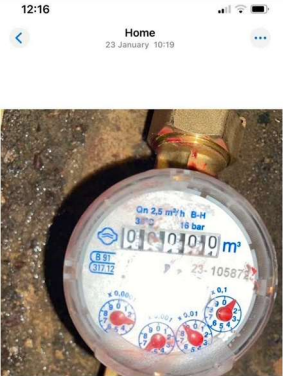


Appendix B

Proposed plans



Appendix B1

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	
17 Nov 2025	397.6275	736.6311	366.0036	2,165.70	
average 23 Jan 2025 – 17 Nov 2025	0	736.6311	736.6311	2,480.24	

Baseline water use is actually 2,480.24 litres per day over nearly a 12 month monitoring period.

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 (m³)	Volume (Litres)	Water Usage (litres per day)
Swimming Pool	5	12	1.6	96	96,000	263.01

PROPOSED WATER USE LOCK HOUSE CONVERSION – 939.08

WATER CREDIT AVAILABLE 1,208.84

Appendix D – Proposed water usage

Part G - Proposed Water Usage

Fixture	Capacity/Flow Rate	Use Factor	Fixed Use	litres/person/day
WVC (Single Flush)		4.42		0.00
WVC (Dual Flush)	4	1.46		5.84
WVC (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	Mains Water usage		
Proposed 3 bed dwelling	-1	2.47	-2.47	-208.59		
Proposed 5 bed dwelling	1	3.09	3.09	260.95		
Totals	0		0.62	52.36		

--

Fixtures and Fittings - Part G Specifications

[illegible]

