

Introduction

1.1 This Water Neutrality Statement (WNS) has been prepared on behalf of Cosmo Empire Limited to demonstrate how the proposed conversion of unit 2 into 2 separate dwellings 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 a 4 bedroom house and a 6 bedroom house whilst losing a 9 bedroom house.

2.4 This statement relates to the proposed sub-division

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

Additional Demand

4.1 As previously defined, the proposed redevelopment of the site will provide an a 4 bedroom house and a 6 bedroom house whilst losing a 9 bedroom house.

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 taking account of the loss of the 9 bedroom house, the population of the proposed development is estimated to be an increase of 2.86 persons (4 bed @ 2.86 persons plus 5+ bed at 3.09 persons less 5+ bed loss 3.09 persons)

4.5 Using the Building Regulations water consumption figure of 125 litres per person per day and population size of 2.86, it is estimated that the total water usage per day for the proposed development would be 357.5 litres per day.

4.7 Based on actual metered use with the remaining water credit of 755.29 litres per day following the implementation of DC/25/0037 and DC/25/0359 the proposed development results in a water credit remaining of 397.79. 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 314.6 litres per day.

Based on the actual metered use for the baseline the remaining water credit is 607.44 litres per day 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 2.86 it is estimated that the mains water demand per day for the proposed development can be reduced to 241.53 litres per day.

5.6 Based on actual following the implementation of DC/25/0037 and DC/25/0359 the proposed development results in a water credit remaining of 680.51 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.

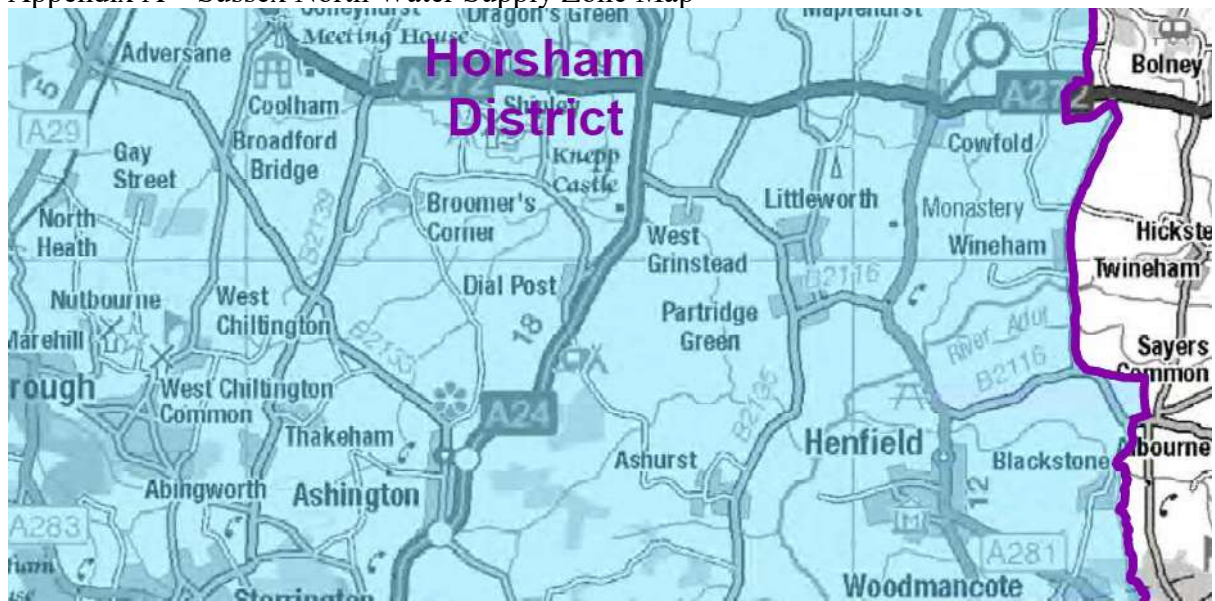
7.2 Based on actual metered water usage the development is water neutral.

7.3 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.

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

7.5 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		 A photograph of a smart water meter with a digital display showing 0 m³. The meter is white with a clear plastic cover and is mounted on a pipe. The background is a dark, textured surface.
30 January 2025	0	19.5771	19,577	2,796.71	 A photograph of the same smart water meter, now showing a reading of 19.5771 m³. The meter is mounted on a pipe, and the background is a dark, textured surface.
6 February 2025	19.5771	38.3524	18,775	2,682.14	 A photograph of the smart water meter showing a reading of 38.3524 m³. The meter is mounted on a pipe, and the background is a dark, textured surface.
13 February 2025	38.3524	55.7163	17.3639	2,480.56	 A photograph of the smart water meter showing a reading of 55.7163 m³. The meter is mounted on a pipe, and the background is a dark, textured surface.

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

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		

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Fixtures and Fittings - Part G Specifications

Item	Capacity/Flow rate	Overview
Toilet (Dual Flush)	4/2 litres	The Gap Dual flow 4/2L WC cistern with bottom inlet for compact back-to-wall fixtures below. E 385 m.
Basin Tap	2.7 litres/minute	Joseph Miles The Joseph Miles... E 190 m.
Bath	130 litres	Ideal Standard Simplicity Water Saving Steel bath 170cm x 70cm (130 Litres) E 160 m.
Showers	6 litres/minute	Triton Triton TROUBLE SHOOTING GUIDE E 120 m.

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:  • Tap for use with the flow regulator must be made of brass or stainless steel, having a 1/2 inch thread • Operating pressure range - Max. 1.2 bar (Max. 5.2 bar) • A 1/2" flow regulator is available in 300 • Please look at flow rate guidelines and the water for a further information page • Please look at flow rate guidelines and the water for a further information page <table border="1" data-bbox="959 981 1209 1099"> <thead> <tr> <th>Flow</th> <th>Flow rate (litres per minute)</th> <th>Order code</th> </tr> </thead> <tbody> <tr> <td>Flow</td> <td>1 litres per minute</td> <td>805 57</td> </tr> <tr> <td>Flow</td> <td>2 litres per minute</td> <td>805 58</td> </tr> <tr> <td>Flow</td> <td>3 litres per minute</td> <td>805 59</td> </tr> <tr> <td>Flow</td> <td>4 litres per minute</td> <td>805 60</td> </tr> <tr> <td>Flow</td> <td>5 litres per minute</td> <td>805 61</td> </tr> <tr> <td>Flow</td> <td>6 litres per minute</td> <td>805 62</td> </tr> </tbody> </table>	Flow	Flow rate (litres per minute)	Order code	Flow	1 litres per minute	805 57	Flow	2 litres per minute	805 58	Flow	3 litres per minute	805 59	Flow	4 litres per minute	805 60	Flow	5 litres per minute	805 61	Flow	6 litres per minute	805 62
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