**Water Neutrality Statement**

**Proposed conversion of existing workshop and gym at**

**Greets House, Friday Street, Warnham RH12 3QY**

**Horsham District Council Planning ref DC/24/0700** July 2024

**Introduction.**

This is a modest (Householder) application which requires no increase of floorspace or footprint.

It is not intended to increase the number of occupants within Greets House – simply the creation of a facility to allow a returning son to experience semi-independent living.

However, Horsham DC have considered the space to be capable of independent occupation as a self-contained dwelling. They have therefore requested this statement to demonstrate that water consumption will not increase as a result of the proposed conversion of existing ancillary space.

**Existing Baseline water usage.**

The last two bills from Southern Water are appended. They cover the period of April 24th 2023 to April 18th 2024 and show a total water use of 189,00 litres over 357 days. This equates to 529 litres per day.

The typical occupancy rate for a 4 bedroom house within Horsham DC is 2.86.

If we apply this rate for purposes of establishing water use per person per day the result is 185l/pp/pd.

In fact that would represent a modest increase in actual occupancy on average since April 2023 but we will assume this number for the purposes of comparison in this Statement.

It should be noted that the existing living arrangement provides a bedroom with en-suite facilities for the applicant's son and which is currently used by him. Therefore the anticipated water use should remain closely in line with the existing use.

However, it is acknowledged that the existing water consumption per person per day allows scope for some reduction. Therefore certain water saving measures are proposed and some of which are already being undertaken in anticipation of the proposed family living arrangement.

These measures include :-

Removal of 2 baths and replacement with showers

Fitting of flow restrictor taps to 3 wash basins

Installation of 2500litres of rainwater harvesting

The extended habitable space is intended for single occupancy. The Horsham DC typical occupancy rate for a one bedroom dwelling is 1.32. Therefore the assumed water usage under Building Regulations Part G Schedule 1 would be 1.32 x 125 = 165l/d.

This assumes a separate unit of accommodation, fully independently occupied as a new dwelling within the curtilage of Greets House.

In reality the proposal does not provide fully independent living facilities with regard to water consumption. There will be no washing machine/laundry facility and just a basic galley kitchen unit (no dishwasher) This of course reflects the close family relationship of the occupants.

**Part G Calculator for the Annex**

| Installation | Units of Measure | Capacity/Flow Rate | Use Factor | Fixed Use | Litres/pp/pd |
|---|---|---|---|---|---|
| WC dual flush | Ave flush vol. litres | 4.0 | 4.52 | 0.0 | 18.08 |
| Shower Only | Flow rate (l/min) | 8.0 | 5.6 | 0.0 | 44.8 |
| Taps (exc sink) | Flow rate (l/min) | 6.0 | 1.58 | 1.58 | 11.06 |
| Sink | Flow rate (l/min) | 5.0 | 0.44 | 10.36 | 12.56 |

No washing machine/ no dishwasher/no external space and associated water use.

Total water use pp/pd = 86.5 l

Factor in potential occupancy of 1.32. 86.5 x 1.32 = 114.18 litres total use.

**Conclusion** – to clearly achieve water neutrality it is necessary to demonstrate a potential reduction of 115 litres of water use per day within the existing dwelling.

The recommendation is to aim for a reduction in use to meet Approved Document G requirements to achieve 125 litres per person per day. This is not necessarily required but serves as a useful guide to potential water economy.

This will be attained by continuing to install water saving measures so that the Maximum Fitting Consumption figures as set out within the Building Regulations and referred above (and as appended).

The adoption of this approach will ensure the following projected total daily water consumption.

Assume 3* residents within Greets House – 3 x 125 = 375 litres per day (* Horsham DC average 2.86)

Add Annex water use (as set out above) 115 litres per day

**Projected total water use per day 490 litres.**

This compares with the current use of 529 litres (as evidenced by Southern Water bills)

The Water Neutrality requirement is therefore met.

It should be noted that the above assumed water saving assessment excludes the benefit of the rainwater harvesting measures (2500 litres) which will shortly be installed. The system has not received a detailed installation impact assessment but will patently serve to further reduce the overall water demand for this property.

Buchan Rum Architects Ltd.

Appendices Southern Water bills 2023-24

Building Regs G2 Table 2.1 to show maximum fittings consumption to meet 125 l/pp/pd

WATER for LIFE from Southern Water

MS V DAVIES & MR M POCHET
GREETS HOUSE
9 FRIDAY STREET
WARNHAM
RH12 3QY

0000/01/0000/0101000/6375883
15180101/009265/001/002

**We're making things right**
We didn't manage and report compliance correctly at our wastewater treatment works between 2010–17. This means we need to make things right for our customers and the environment. As agreed with Ofwat, we've reduced our wastewater charges by £123m until 2025 (bills will still rise with inflation and depend on your water use).
We're also investing in fixing pipes, pumping stations, wastewater plants and sewers to protect the environment.
Find out more at:
**southernwater.co.uk/making-amends**

**Visit our website for live chat or to log into your account**
**southernwater.co.uk/help**

**0330 303 0277**
**Weekdays - 8am to 6pm**

**Your customer number**
22341345

**Your payment reference**
0004 5182 5794X

Dear Ms V DAVIES & Mr M POCHET,

Here's your latest bill based on the meter reading we took on 08 April 2024. You currently pay by cash – see page two for your payment options.

## Meter reading

Water used in cubic metres

**56 m³**

One cubic metre = 1,000 litres
This is equivalent to: 11 baths, 31 (4 min) showers or 166 toilet flushes

Meter number: 8090187

**Latest reading: 8 Apr 2024**

| | | 2 | 2 | 7 | 0 | . | 0 | 0 |
|---|---|---|---|---|---|---|---|---|

**Previous reading: 24 Oct 2023**

| | | 2 | 2 | 1 | 4 | . | 0 | 0 |
|---|---|---|---|---|---|---|---|---|

Your next meter reading is scheduled to take place by 31 Oct 2024

**Previous bill's usage**
**133.00 m³**

## Charges

**£246.79**

Bill date
**11 Apr 2024**

Billing period
**From: 25 October 2023**
**To: 08 April 2024**

Bill type
**Metered - Cash**

**Previous bill's charges**
**£537.08**

## Future payments

Total payment of
**£246.79**

Due by
**27 April 2024**

**To pay your bill**
See how to pay on p. 2

Struggling to pay? See p. 3

## Water

Period: 25 October 2023 to 31 March 2024

| | | | | |
|---|---|---|---|---|
| **Variable Rate** | £1.716 x | 53.30m³ | = | £91.46 |
| **Standing Charge** | | | = | £9.11 |

Period: 01 April 2024 to 08 April 2024

| | | | | |
|---|---|---|---|---|
| **Variable Rate** | £1.958 x | 2.70m³ | = | £5.29 |
| **Standing Charge** | | | = | £0.53 |
| **Total Water** | | | | **£106.39** |

## Wastewater

Period: 25 October 2023 to 31 March 2024

| | | | | |
|---|---|---|---|---|
| **Variable Rate** | £2.176 x | 49.30m³ | = | £107.28 |
| **Standing Charge** | | | = | £25.51 |

Period: 01 April 2024 to 08 April 2024

| | | | | |
|---|---|---|---|---|
| **Variable Rate** | £2.461 x | 2.50m³ | = | £6.15 |
| **Standing Charge** | | | = | £1.46 |
| **Total Wastewater** | | | | **£140.40** |

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WATER for LIFE

from Southern Water

MS V DAVIES & MR M POCHET
GREETS HOUSE
9 FRIDAY STREET
WARNHAM
RH12 3QY

paid 22/11/23
£537.08

0000/01/0000/0110/0000/5865201
1427750/1/002043/001/002

**We're making things right**

We didn't manage and report compliance correctly at our wastewater treatment works between 2010–17. This means we need to make things right for our customers and the environment. As agreed with Ofwat, we've reduced our wastewater charges by £123m until 2025 (bills will still rise with inflation and depend on your water use).
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**Weekdays - 8am to 6pm**

**Your customer number**
22341345

**Your payment reference**
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Dear Ms V DAVIES & Mr M POCHET,

Here's your latest bill based on the meter reading we took on 24 October 2023. You currently pay by cash – see page two for your payment options.

## Meter reading

Water used in cubic metres

**133 m³**

One cubic metre = 1,000 litres
This is equivalent to: 11 baths, 31 (4 min) showers or 166 toilet flushes

Meter number: 8090187

**Latest reading: 24 Oct 2023**

| | | 2 | 2 | 1 | 4 | . | 0 | 0 |
|---|---|---|---|---|---|---|---|---|

**Previous reading: 18 Apr 2023**

| | | 2 | 0 | 8 | 1 | . | 0 | 0 |
|---|---|---|---|---|---|---|---|---|

Your next meter reading is scheduled to take place by 01 May 2024

**Previous bill's usage**
**69.00 m³**

## Charges

**£537.08**

Bill date
**25 Oct 2023**

Billing period
**From: 19 April 2023**
**To: 24 October 2023**

Bill type
**Metered - Cash**

**Previous bill's charges**
**£272.89**

## Future payments

Total payment of
**£537.08**

Due by
**10 November 2023**

**To pay your bill**
See how to pay on p. 2

Struggling to pay? See p. 3

## Water

Period: 19 April 2023 to 24 October 2023

| | | | | |
|---|---|---|---|---|
| **Variable Rate** | £1.716 x | 133.00m³ | = | £228.23 |
| **Standing Charge** | | | = | £10.82 |
| **Total Water** | | | | **£239.05** |

## Wastewater

Period: 19 April 2023 to 24 October 2023

| | | | | |
|---|---|---|---|---|
| **Variable Rate** | £2.176 x | 123.03m³ | = | £267.71 |
| **Standing Charge** | | | = | £30.32 |
| **Total Wastewater** | | | | **£298.03** |

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# Guidance

## Performance

In the Secretary of State's view Requirement G2 will be met for new dwellings if:

a. the estimated consumption of wholesome water resulting from the design of cold and hot water systems (calculated in accordance with the methodology set out in Appendix A to this approved document and taking into account the use of any alternative sources of water provided in accordance with G1(2)) is not greater than the standard set by the Secretary of State of 125 litres/person/day of ***wholesome water*** or 110 litres/person/day where the optional requirement applies;

b. the manner in which ***sanitary appliances*** and white goods used in the design calculation undertaken to demonstrate compliance with paragraph (a) are provided and installed in the dwelling takes account of the other provisions in this approved document;

c. the manner in which any alternative sources of water used in the design calculation undertaken to demonstrate compliance with paragraph (a) are supplied to the dwelling, takes account of other provisions in this approved document;

d. a record of the ***sanitary appliances*** and white goods used in the water consumption calculation and installed in the dwelling is provided along with sufficient other information enabling ***building*** owners or occupiers to maintain the ***building*** and its services so as to maintain the water efficiency of the ***building***. In this context, relevant white goods are washing machines and dishwashers;

e. a record of the alternative sources of water used in the water consumption calculation and supplied to the dwelling is provided along with sufficient other information enabling ***building*** owners or occupiers to maintain the ***building*** and its services so as to maintain the water efficiency of the ***building***.

Where a ***building*** consists of more than one dwelling (such as a block of flats) it should be designed so that the estimated consumption of wholesome water resulting from the design of the cold and hot water systems for each individual dwelling should be no greater than the target.

## General

**2.1** The water used by ***sanitary appliances*** and relevant white goods in a new dwelling should be calculated using the manufacturer's declared value for water consumption of each of those appliances and white goods.

**2.2** The estimated water consumption of a new dwelling should be calculated in accordance with the methodology set out in Appendix A, referred to as the water efficiency calculator.

**2.3** The estimated consumption of ***wholesome water*** of a new dwelling should be no more than 125 litres/person/day or 110 litres/person/day where the optional requirement applies. This includes a fixed factor of water for outdoor use of 5 litres/person/day.

**2.4** Where alternative sources of water are to be used in the dwelling design, this should be reflected in the estimate of water use.

## Fittings approach

**2.5** As an alternative to calculating the water consumption (as paragraph 2.2), a fittings approach that is based on the water efficiency calculator methodology may be used.

**2.6** Where the fittings approach is used, the water consumption of the fittings provided must not exceed the values in Table 2.1. If they do, the water efficiency calculator must be completed to demonstrate compliance. Similarly, where a shower is not to be provided or where a waste disposal unit, a water softener or water re-use is to be provided the water efficiency calculator must be completed.

Table 2.1 **Maximum fittings consumption**

| Water fitting | Maximum consumption |
|---|---|
| WC | 6/4 litres dual flush or 4.5 litres single flush |
| Shower | 10 l/min |
| Bath | 185 litres |
| Basin taps | 6 l/min |
| Sink taps | 8 l/min |
| Dishwasher | 1.25 l/place setting |
| Washing machine | 8.17 l/kilogram |

**2.7** Where the fittings approach is used, the notice given under regulation 37 should state "Less than 125 litres/person/day using fittings approach".