



Consulting Civil Engineers

## Existing Fittings Survey

**Pickwick, Turnpike Road, Amberley, West Sussex**

**For**

**Rural Regeneration Ltd**

Rev – P-

Reference **C2935**


Date **7<sup>th</sup> December 2023**

Revision	Date of Issue	Comments	Prepared By	Checked By
P-	07.12.23	Initial Issue	LT	CS


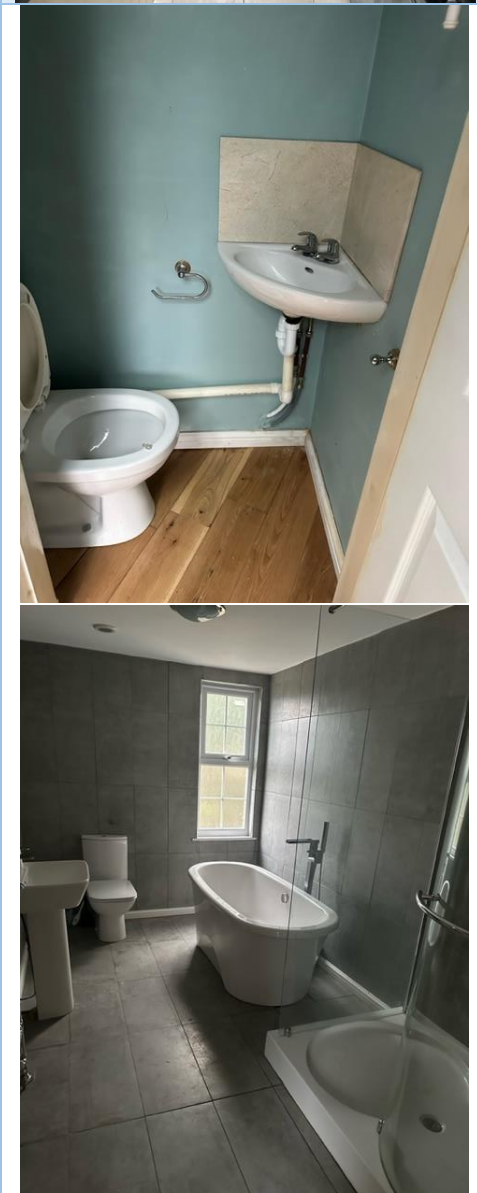
## **1 Introduction**

- 1.1.1 CGS Civils Ltd has been appointed by Rural Regeneration Ltd to undertake an Existing Fittings Survey in support of a Water Neutrality Report (C2935 Water Neutrality Report) for a proposed development at Pickwick, Turnpike Road, West Sussex. Planning permission is sought to convert the existing 4-bedroom dwelling to form one 2-bedroom, one 3-bedroom and two 4-bedroom dwellings.
- 1.1.2 The purpose of this report is to provide an overview on the existing fittings and their water usages as well also show the proposed water usage changes on the site as a result of the recommendations made within the Water Neutrality report.
- 1.1.3 The water usage calculations within this report have been made using the Water Calculator from Building Regulations G as per the accompanied Water Neutrality Report.



## 2 Existing 4-bedroom property at Pickwick

Fittings	Type of Fitting	Existing Water usage (l/p/day)
	Taps (excluding kitchen)	11.06

		
 	<p>Shower (bath also present)</p>	<p>43.70</p>

	<p>Kitchen sink taps</p>	<p>13.88</p>
	<p>Toilets</p>	<p>9.34 – Full Flush 13.32 – Part Flush</p>

		
	<p>Baths</p>	<p>20.35</p>

	<p>Washing Machine</p>	<p>17.16</p>
	<p>Dishwasher Pool top-up (Existing pool dimensions are 32ft x 16ft, or 9.76m x 4.88m)</p>	<p>4.50 285.77 (based on a loss of 6mm per day due to evaporation)</p>
	<p>Annual pool refill for cleaning (Existing pool dimensions are 9.76m x 4.88m, depth varies from 1m to 2.5m deep, with one third of the pool being 2.5m deep, total volume is 94.09m<sup>3</sup>)</p>	<p>257.60 (94,090 l/year)</p>
	<p>Total (l/p/day) with normalisation factor and 5l/p/day added for outdoor use (refer to appendix A):</p>	<p>126.31</p>
	<p>Total (l//day) for an occupancy level of 2.86</p>	<p>361.25</p>
	<p>Total (l/day) once the pool top-up and annual refill is accounted for:</p>	<p>904.62</p>

### 3 Conclusion

3.1.1 The above table shows that the water demand from the existing site can be calculated to be **904.62 l/day**. As the proposed site will only have a demand of **850.81 l/day**, the site is considered to be water neutral.



## 4 Appendices

### 4.1 Appendix A:

Table 1 – Water Calculator from Building Regulations Part G – Information input from existing properties prior to any mitigation.

The Water Calculator for New Dwellings with Water efficient measures					
Installation Type	Unit of measure	Volume/ flow rate	Use factor	Fixed use	Litres/person/day
WC (Single Use)	Flush volume (l)	0	4.42	0	0
WC (Dual Flush)	Full Flush Vol.	6.4	1.46	0	9.34
	Part Flush vol.	4.5	2.96	0	13.32
WC (Multiple Fittings)	Average effective flush volume (l)	0	4.42	0	0
Taps (excl. Kitchen)	Flow rate (l/min)	6	1.58	1.58	11.06
Bath (shower also present)	Capacity to overflow (l)	185	0.11	0	20.35
Shower (bath also present)	Flow rate (l/min)	10	4.37	0	43.70
Bath only	Capacity to overflow (l)		0.5	0	0
Shower only	Flow rate (l/min)		5.6	0	0
Kitchen sink taps	Flow rate (l/min)	8	0.44	10.36	13.88
Washing Machine	Litres/kg dry load	8.17	2.1	0	17.16
Dishwasher	litres/place setting	1.25	3.6	0	4.50
Waste disposal unit	litres/use	0	3.08	0	0
Water softener	litres/person/day	0	1	0	0
Total Calculated use (l/p/d)					133.31
Contribution from greywater (l/p/d)					0
Contribution from rainwater (l/p/d)					0
Normalisation factor					0.91
External water use					5
Total water consumption (36(1)) (l/p/d)					126.31