Application under Regulation 77 of the Conservation of Habitats and Species Regulations 2017

Relating to

Prior Notification for Change of Use of an Agricultural Building to residential (Use Class C3) to form 4no dwellinghouses approved under application DC/22/2118

Swains Farm Brighton Road Henfield West Sussex BN5 9RP

BASELINE WATER USAGE ASSESMENT FOR MITIGATION SITE

The applicant has agreed to use another property to the north east of the application site for mitigation. The address of this property is

Pear Tree Farm,
Furners Lane,
Woodmancote,
Henfield
BN5 9HX

The mitigation property benefits from consent granted under DC/17/1374 for a settled gypsy accommodation site comprising 3 pitches and associated utility building.

The development comprises three pitches, each containing a static caravan, a touring caravan and a utility building.

The consent allows for a change of use of the land to the stationing of caravans but is not prescriptive of the number of bedrooms the static caravans should contain.

It is the owners intention however to site a three bedroom static caravan and a 1 bed touring caravan on each pitch.

In addition each pitch will have a day room space in the large day room building

As caravans are not subject to the building regulations limit of 125 litres / person / day the following document sets out the water usage of the caravans and day rooms that would be installed on site at Pear Tree farm.

Floor plans are included below



Static caravan floor plan



Touring caravan floor plan

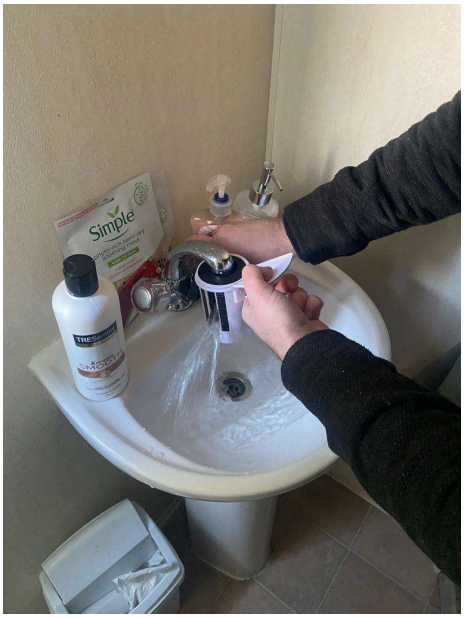


Day room floor plan

In order to calculate baseline water usage flow tests have been undertaken on the static caravan and touring caravan that would be installed on site.






Simple



As the day room is yet to be built the fittings proposed to be used have been specified to provide a baseline water usage.

The following summarises the flow rates for the caravans

Caravan fittings

Kitchen sink tap 22 litres per minute
Shower 12 litres per minute
Bathroom basin 20 litres per minute
En suite basin 20 litres per minute
Toilet 6 litre dual flush

The following summarises the flow rates and water usage for the day rooms

Day room fittings

Kitchen and utility room sink taps – Lusso Flow Mixer Tap Microsoft Word - WK305.docx (lussostone.com) 8.2 litres per minute

Shower - AICA Thermostatic Shower Mixer Square System https://www.aicabathrooms.co.uk/products/aica-thermostatic-shower-mixer-square-system-5-function-handshower-kit 10 litres per minute

Bathroom basin - Abode FLUX Basin Monobloc Mixer Tap https://www.sinks-taps.com/shop/abode-flux-basin-monobloc-mixer-tap.html 18.36 litres per minute

Bath - Linea 1700 x 700mm Luxury Double Ended Bath Linea 1700 x 700mm Luxury Double Ended Bath (15534) Acrylic - Bathshack 185 litres

Toilet Nuie Freya Rimless Close Coupled Toilet https://www.bathshack.com/nuie-freya-wc-pan-cistern-soft-close-seat-new.html 4 litre / 6 litre dual flush

Dishwasher – 1.25 litres per place setting
Washing machine - 8.17 litres / kg dry load

Using the above figures the water usage can be calculated using a Part G water calculator included overleaf.

This demonstrates a baseline water demand of 149.5 litres / person / day

This is significantly in excess of the 124.4 litres / person / day assumed in the Sadler Energy and Environmental Services Ltd Water Neutrality Statement.

On this basis it is clear that the figure used in the water neutrality strategy is sufficiently robust and the water saving proposed by the water neutrality scheme would in fact result in a larger water saving.

Water Calculator | WC | Taps (Other) | Taps (Kitchen/Utility) | Baths | Dishwashers | Washing Machines | Showers | H2O softeners | Greywater | Rainwater

Installation Type	Unit of Measure	Capacity/Flow rate (1)	Use Factor (2)	Fixed use (litres/person/day) (3)	Litres/person/day = [(1)x(2)] + (3) (4)
WC (single flush)	Flush Volume (litres)		4.42	0.00	0
WC (dual flush)	Full flush Volume (litres)	4	1.46	0.00	5.84
	Part flush Volume (litres)	6	2.96	0.00	17.76
WC (multiple fittings)	Average effective flushing Volume (litres)		4.42	0.00	0
Taps (excluding kitchen/utility room taps)	Flow rate (litres/min)	19.45	1.58	1.58	32.32
Bath (where shower also present)	Capacity to overflow(litres)	185.00	0.11	0.00	20.35
Shower (where bath also present)	Flow Rate(litres / minute)	10.00	4.37	0.00	43.70
Bath Only	Capacity to overflow(litres)		0.50	0.00	0
Shower Only	Flow Rate (litres/minute)		5.60	0.00	0
Kitchen/Utility room sink taps	Flow rate (litres/minute)	15.40	0.44	10.36	17.14
Washing Machine	(Litres/kg dry load)	8.17	2.1	0.00	17.16
Dishwasher	(Litres/place setting)	1.25	3.6	0.00	4.50
Waste disposal unit	(Litres/use)	☐ Present	3.08	0.00	0
Water Softener	(Litres/person/day)		1.00	0.00	0
	(5)	**Total Calculated use (litres/person/day) =SUM(column 4)**			158.77
	(6)	Contribution from greywater (litres/person/day)			0
	(7)	Contribution from rainwater (litres/person/day)			0
	(8)	Normalisation factor			0.91
	(9)	Total internal water consumption = [(5)-(6)-(7)]x(8) (litres/person/day)			144.48
	(10)	External water use			5.0
	(11)	**Total water consumption (Building Regulation 17.K) =(9)+(10)(litres/person/day)**			149.5

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