[redacted]

From: SM-Defra-Plan Cons Area Team (Sussex and Kent) (NE) <PlanConsAreaTeamSussexandKent@defra.gov.uk>
Sent: 15 April 2024 14:15
To: Planning
Subject: FW: 2024-04-29 471977 DC_24_0289 Demolition of outbuildings and construction of a new detached double storey dwelling (Class C3). 38A Quarry Way Southwater West Sussex RH13 9SU
Attachments: ufm2_Water_Neutrality_consult.pdf; 3AEC39F4DFE3478D8469FBD29676676B (2).pdf; 2. Water Neutrality HRA APPROPRIATE ASSESSMENT template.docx; Annex A to standard letters - April 2023 (PDF).PDF

Categories: Consultations

Thank you for consulting with Natural England regarding the following consultation(s).

The proposed development(s) falls within the Sussex North water supply zone; As set out in Natural England's Advice Note regarding Water Neutrality within the Sussex North Water Supply Zone, the existing water supply in the Sussex North water supply zone cannot be ruled out as contributing to the declines in wildlife within internationally protected sites in the Arun Valley SPA, SAC and Ramsar site. Achieving water neutrality is recognised as a suitable method to rule out potential adverse effects on the integrity of these sites arising from development.

Considering the supporting information provided by the applicant(s) and your authority's habitats regulation assessment (HRA) our advice is as follows.

Our ref	LPA ref	Planning Consultation and Location	Natural England's advice
471977	DC/24/0289 *HRA/AA* Demolition of outbuildings and construction of a new detached double storey dwelling (Class C3).	**Planning Consultation**: *HRA/AA* Demolition of outbuildings and construction of a new detached double storey dwelling (Class C3). **Location**: 38A Quarry Way Southwater West Sussex RH13 9SU	We concur with the conclusion of your authority's HRA appropriate assessment insofar that adverse effects on the integrity of the Arun Valley Designated sites can be ruled out, as such: We have no objections subject to the: delivery, management and maintenance of measures identified in the water neutrality statement to achieve water neutrality.

Further general advice on the protected species and other natural environment issues is provided in the attached Annex A.

If you have any queries relating to this advice please let us know.

[redacted]

[redacted]

[redacted]

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Water Neutrality Statement – 38A Quarry Way, Southwater RH13 9SU – Rev A

Introduction

This report has been produced to justify the construction of a proposed new 2 bed dwelling that is within the curtilage of the existing end of terrace property at Southwater.

The application site falls within the Sussex North Water Supply Zone as defined by Natural England and which includes supplies from groundwater abstraction which cannot, with certainty, demonstrate adverse impacts upon the defined Arun Valley SAC, SPA and Ramsar sites.

Background

The site is located within the Timber Mill estate and within the parish boundary of Southwater. The current proposed planning permission seeks to build a sustainable new home and upgrade the adjoining existing property's water usage.

Baseline Calculations (369 litres/day prior to offsetting)

The baseline water consumption rate for the existing residential dwelling uses 369l/d according to the most recent water bills. (*see Appendix D*). Alternative data using the Building Regulations Part G and BREEAM water calculators have also been considered in conjunction with the occupancy rates and consumption data for this site.

The existing baseline consumption has been fully evidence to give certainty of the actual mains water being use at the site with the metered water bills.

Proposal Demand (240.5litres/day)

This calculates what the water demands will be from the proposed dwelling when combined with the upgraded house. The data is presented in litres per person per day and they reflect the average occupancy of 38a Quarry Way 136.5 l/d plus 1 new-build x 1.88occupancy x 135l/p/d = 240.5 l/d

Water Reduction Measures (55.3 l/p/d)

Where the proposed water consumption is higher than the baseline consumption, we must first consider reducing water consumption in the proposed development through installing more water efficient fixtures and appliances. Completion of the Part G or BREEAM water calculators has helped to demonstrate the savings being made. Where highly efficient appliances are to be installed, details of an appliance that meets that high standard of water consumption have been submitted to demonstrate the efficiencies are achievable. (*see Appendix C*)

The Building Regulations Part G calculator shows that water consumption in the proposed new dwelling and the existing end of terrace can be reduced to 55.3 l/p/d. and this represents the worst case water usage (assuming both a bath and shower in each property).

Once all efficiency opportunities had been explored, water re-use through rain water harvesting/recycling has been taken into consideration. (*Further details see Appendix B*)

Offsetting measures (55.3 l/p/d)

The existing end of terrace has relatively dated/water-inefficient fixtures and fittings. The proposed new build provides a good opportunity to upgrade all new water-efficient fittings and flow restrictors. This associated water offsetting can be secured by a planning condition as the existing end terrace is fully contained within the application red line.

Water Neutrality Calculations/Budget

Baseline water usage Using the water bills	333 litres/day 369 litres/day	Existing End-Terrace = 2.47 x 135 l/p/d
Proposed build	104 litres/day	New 2 bed = 1.88 x 55.3 l/p/d
Existing end-terrace after Offsetting measures	136.5 litres/day	Existing 3 bed = 2.47 x 55.3 l/p/d
Resultant water usage	-92.5 litres/day -128.5 litres/day	Water neutral

The calculations and water mitigation strategy demonstrate that the proposed new build will achieve water neutrality

Evidence existing/baseline water consumption using the Building Regulations Part G Calculator Includes rainwater harvesting for all WCs, washing machines & all external water

55.3 l/p/d for existing water offsetting and 55.3 l/p/d proposed new dwelling

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)	6	1.46	0.00	8.76
	Part flush Volume (litres)	3	2.96	0.00	8.88
WC (multiple fittings)	Average effective flushing Volume (litres)		4.42	0.00	0
Taps (excluding kitchen/utility room taps)	Flow rate (litres/min)	4.00	1.58	1.58	7.90
Bath (where shower also present)	Capacity to overflow(litres)	130.00	0.11	0.00	14.30
Shower (where bath also present)	Flow Rate(litres / minute)	4.00	4.37	0.00	17.48
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)	4.00	0.44	10.36	12.12
Washing Machine	(Litres/kg dry load)	6.00	2.1	0.00	12.60
Dishwasher	(Litres/place setting)	0.90	3.6	0.00	3.24
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)			85.28
	(6)	Contribution from greywater (litres/person/day)			0
	(7)	Contribution from rainwater (litres/person/day)			30
	(8)	Normalisation factor			0.91
	(9)	Total internal water consumption = [(5)-(6)-(7)]x(8) (litres/person/day)			50.30
	(10)	External water use			5.0
	(11)	Total water consumption (Building Regulation 17.K) =(9)+(10)(litres/person/day)			55.3

Installation Type	Make/Model (*mandatory)		Litres/Person/Day
WC (dual flush)	Gerbrit Delta Concealed Cistern 12cm 6/3litres	*	17.64
Taps	Luxe monoblock	*	7.90
Baths (shower(s) present)	Apollo Back to the Wall	*	14.30
Showers (bath(s) present)	Bristan Shower outlet	*	17.48
Kitchen Taps	Bower Neptune Monoblock with flow restrictor	*	12.12
Washing Machines	Bosch WAQ 283S0GB A +++ rated	Make/Model required (if known)	12.60
Dishwasher	Bosch Active Water	Make/Model required (if known)	3.24
Contribution from rainwater (litres/person/day)	30	*	30

Figure 1: Building Regulations Part G -The Water Efficiency Calculator

Residential use and Rainwater Harvesting Demand

Water bills are available (*see Appendix D*) and a survey of all existing fixtures and fittings (*see Appendix A*) evidence the current water consumption rate. This has been provided within a Building Regulations Part G water calculator. The calculator has been supported with photographs of the fixtures and fittings, and an explanation of the methodology used to calculate the flow rates.

Based on extrapolated 2011 census data for Horsham District, average occupancy rates are as follows:

Two-bedroom dwellings:	1.88 occupants
Three-bedroom dwellings:	2.47 occupants

To achieve the water reductions under 85 l/p/d, the use of rainwater harvesting and greywater recycling has been included.

- 17.64 l/p/d for all Dual 6.0/3.0litre flush WCs
- 5.0 l/p/d for external water use (gardens and vehicle washing)
- 12.60 l/p/d for Washing Machines (A+++ rated 39litres)
- 50.30 l/p/d total demand

Rainwater Harvesting and Roof Collection of Rainfall

Rainfall will be collected from the roofs, the catchment area of which amounts to 125 square metres (in the horizontal plane – i.e. equating to the footprint and not the extent of the roof slopes).
Source: https://en.climate-data.org/europe/united-kingdom/england/horsham-6550/

Average annual rainfall in Horsham district for period 1991-2020 was 858.70mm
On average the wettest month is 78mm and the driest is 48mm.

Using this data the roof can harvest 92.75 cu m (92750 litres) in an average year; 10,000 litres in the average wettest month and 6,000 litres in the average driest month. The scheme will involve a 10,000 litre storage tank and a pump pressurised on demand to distribute water to all points in the garden.

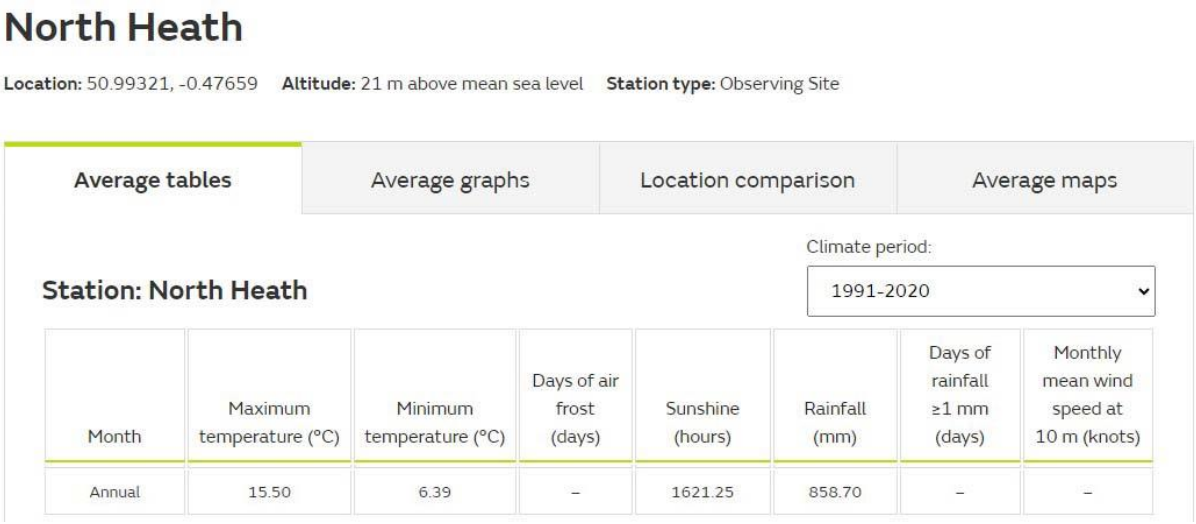
The proposed scheme will positively support the conservation aspects of the water neutrality initiative being pursued by the Council by reducing rather than increasing the overall use of mains water. The underground potable water tank is suitable for storing water that will be consumed by humans or animals.



Figure 2: Rainwater harvesting Endura Maxx tank:

- 5.0 l/p/d for external water use (garden, vehicle washing etc)

Roof collection for rain water harvesting can be achieved using the existing downpipes. The average annual rainfall at the nearest climate station of North Heath = 858.70mm



North Heath

Location: 50.99321, -0.47659 **Altitude:** 21 m above mean sea level **Station type:** Observing Site

Average tables | Average graphs | Location comparison | Average maps

Climate period: 1991-2020

Station: North Heath

Month	Maximum temperature (°C)	Minimum temperature (°C)	Days of air frost (days)	Sunshine (hours)	Rainfall (mm)	Days of rainfall ≥1 mm (days)	Monthly mean wind speed at 10 m (knots)
Annual	15.50	6.39	–	1621.25	858.70	–	–

Figure 3: North Heath rainfall (mm) 1991-2020

Rainwater Collection Calculation

Inputting all of the above figures into table A5.1 from the Building Regs Part G – BS 8515 gives the following results:

Collection area (m²)	Yield coefficient & filter efficiency	Rainfall average (mm/year)	Daily rainwater collection (litres)	Number of occupants	Daily rainwater per person (litres)
125.00	0.81	858.70	238.00	4.35	54.70

Rainwater collection (54.7 l/p/d would easily be able to satisfy the internal and external demand 30.0 l/p/d. therefore the rainwater harvesting (and the Part G calculator are credible and deliverable)

Rainwater Storage and Drought

The water storage tank is to be sized to hold at least 18days (5%) off the annual rainwater demand. Some tank manufacturers recommend using 21 days and Natural England request 35 days for extreme drought protection.

Tank size = 35days 30 l/p/d demand x 4.35 occupancy = 130.5

The Endura 10,000litre system would be suitable in conjunction with 2 x 100litre water butts (to assist with irrigation of the gardens). This will provide a total of 10,200 litres delivering over 35 days of drought protection.

The 10,000 litre gravity feed system includes a tank filter, submersible pump, loft header tank and control panel. The underground tank (2400 diameter x 2500 h) has an easily accessible fine filter for cleaning and maintenance.

Conclusion
A 2-bed house has an average occupancy of 1.88, and a 3-bed house has an average occupancy of 2.47. Total proposed occupancy would therefore be 1.88 + 2.47 = 4.35 persons

To be water neutral, the 4.35 average occupants must not consume more than 369 litres per day in total. This works out at consumption of 85 l/p/d (369 / 4.35).

Mitigation through improved water efficient fixtures and appliances to the existing end of terrace and the proposed new dwelling will be mitigated by rainwater harvesting tank and the use of grey water. This offsetting against 38A Quarry Way demonstrates the proposal can be seen as water neutral.

Therefore, it has been concluded that with mitigation the proposed development would result in no greater demand than existing, and Water Neutrality has been achieved. There is no clear or compelling evidence to suggest the nature and scale of the proposed development would result in a more intensive occupation of the dwelling necessitating an increased consumption of water that would result in a significant impact on the Arun Valley SAC, SPA and Ramsar sites. The grant of planning permission would not therefore adversely affect the integrity of the estate or conflict with policy 31 of the Horsham District Planning Framework 2015, National Planning Policy Framework 20 23 paragraph 180 and the Council's obligations under the Conservation of Habitats and Species Regulations 2017.

The applicants would be willing to accept a suitably worded planning condition to ensure that all of the above water reduction measures are implemented prior to first occupation of the new build. **The water offsetting measures should be secured by planning condition as the existing end of terrace is included within the application red/blue line.**

APPENDIX A: Fixtures & Appliances to Existing End of Terrace



Apollo Back to the Wall 1500 x 760mm curved Bath

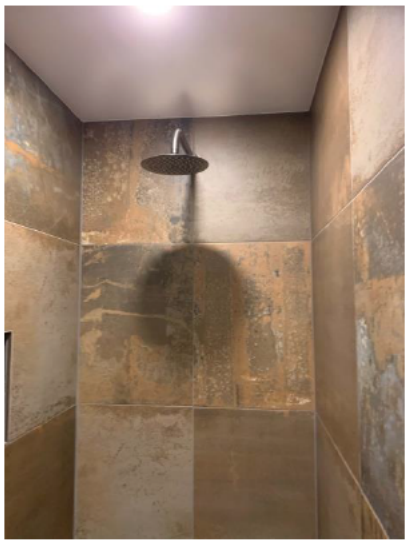
Water Usage: 130litres



Basin: Monoblock tap (currently with no flow restrictor)



Back to the Wall Water Closet: With a concealed cistern: 9litres per flush



Shower: 121litres per minute

96litres per average shower



Basin:



Close coupled WC: 4/6ltr flush



Bosch Logixx 7: Washing Machine 49litres per use



Bosch SMV40T10: Dish Washer 14litres per use on Economy 50



Kitchen Sink Monoblock tap (currently with no flow restrictor)



Cloak Room & WC Monoblock tap (currently with no flow restrictor)



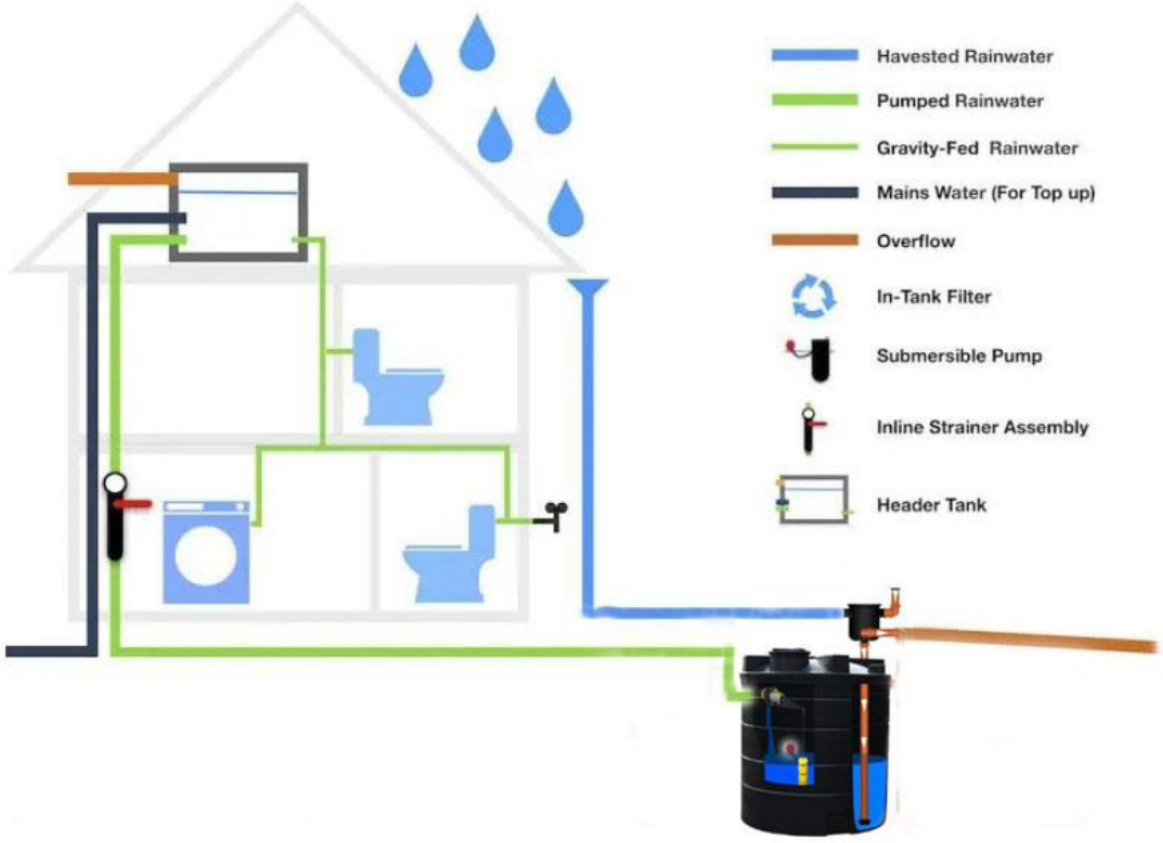
Close coupled WC
4/6 litre flush

APPENDIX B – Rain Water Harvesting





Rainwater Butts (two to be provided, one for each dwelling)



Rainwater Harvesting system has a fine filter inside the storage tank which is easily removed for cleaning and maintenance. A gravity fed system with a header tank to be fed from stored rainwater with mains back up in dry spells.

APPENDIX C – Examples of fixtures and appliances that comply with the Part G calculator



Geberit Delta Concealed Cistern 12cm 6 / 3 Litres

Part No.: 109.105.00.1

[redacted]

Be the first to write a review

In Stock

Quantity 1 ADD TO BASKET

Get It Wednesday Order in 20 hours and 58 minutes

Our Delivery Options

- FREE Standard Delivery Over £499 to UK mainland

Concealed cistern for a dual flush WC 6/3 litres.
BREEAM Guidance confirms that effective flush volume for a dual flush WC is the aerage of 1 ffull flush plus 2 reduced flushed to deliver and average of litres volume.



Toilet Cistern Tank Water Saving Bag

[redacted]

2121 in stock

1

The toilet cistern water saver is a simple, proven and low cost water saving device to help conserve water in toilet cisterns.

Pay in 3 interest-free payments on purchases from £30-£2,000 with PayPal. Learn more

PayPal

The safer, easier way to pay

EAN: 664918228927
SKU: 1096
Categories: Flow Restrictors, Tap Accessories, Water Saving
Tags: cistern, saving, toilet, water

For retrofitting to an existing WC

WATER SAVING SHOWERS / SHOWER FLOW LIMITER 4 LITRES PER MINUTE



SHOWER FLOW LIMITER 4 LITRES PER MINUTE

Product Code : SHW4L

Delivery: 2-3 Working Days

[redacted]

With ever increasing environmental issues it is essential that we all do our bit.

This restricts the flow of water to a shower to 4litres per minute



BASIN/PILLAR TAP FLOW LIMITERS 4 LITRES PER MINUTE (PAIR)

Product Code : TAP4L

Delivery: 2-3 Working Days [redacted]

4 litre per minute flow limiter. Can be fitted to most Sink and Basin taps. A 15mm compression fitting will be required for each limiter when fitting to Basin Mixers and Kitchen Mixers.

Qty: 1 ADD TO CART

Add to Wishlist | Add to Compare

RELATED PRODUCTS

Check items to add to the cart or select all

Restricts the sink and basin taps to 4litres per minute



Apollo Back To Wall Modern Curved Bath (1700 x 800mm)

Part No.: LBT40W

[redacted]

★★★★★ 10 Reviews | 11 Questions

In Stock

The Apollo Back To Wall Modern Curved Bath offers a clever solution for compact bathrooms. One side of this 1700mm-long D-shaped bath sits flush against the wall, while its sleek curved edge saves space. Uneven floors? Not a problem ... See More Info

Quantity - 1 + ADD TO BASKET

Bath (130 litre) 130 litres at full capacity



Arezzo Round 200mm Matt Black Fixed Shower Head + Wall Mounted Arm

Part No.: RDHDARBLK

[redacted]

★★★★★ Be the first to write a review | 4 Questions

In Stock

Quantity - 1 + ADD TO BASKET

Get It Wednesday Order in 10 hours and 44 minutes

Shower with flow restrictor at 4litres/minute or less



Bosch WAQ283S0GB Washing Machine in White

Bosch WAQ28350GB Washing Machine offers great water conservation, while ensuring that each type of laundry gets the right treatment. This smart and efficient front loading washing machine has a 1400 rpm spin speed and a spacious 8 kg capacity, making it the ideal machine for a busy lifestyle or a large family. There are 15 programmes to choose from, including special programmes for cotton, wool, pre-wash and anti-crease whilst saving water. Bosch WAQ28350GB Washing Machine is also **A+++ rated for energy efficiency and uses only 39 litres of water and 0.82 kWh per cycle.**

product id: 9794

[redacted]

Out of stock

Bosch washing machine Energy Efficiency Rated A+++ and uses 39litres of water at 8kg capacity



Graded Bosch SMS2HVW66G 60cm Freestanding White Dishwasher (B-46921)

BOSCH

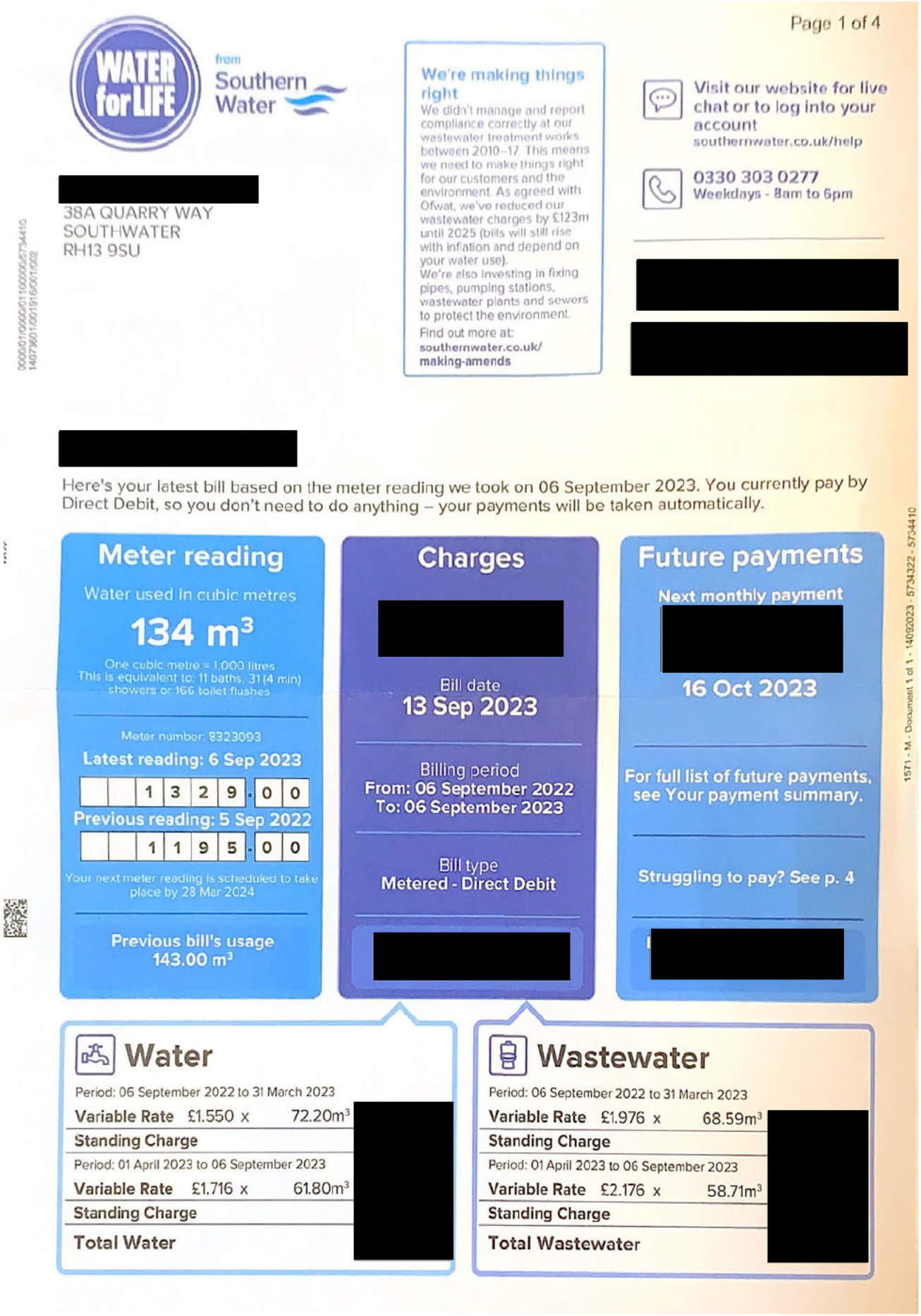
ONLY 1 LEFT | SKU#: NCSI653425

Key Features

- 13 Place Settings
- Up to 24 Hour Start Delay

Bosch Dishwasher (0.9 litres/place setting) – has a low water usage

APPENDIX D: Water Bills for 38A Quarry Way- RH13 9SU



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WATER for LIFE from Southern Water

[redacted]
38A QUARRY WAY
SOUTHWATER
RH13 9SU

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14073601.001916.001.002

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

[redacted]

[redacted]

Here's your latest bill based on the meter reading we took on 06 September 2023. You currently pay by Direct Debit, so you don't need to do anything – your payments will be taken automatically.

Meter reading

Water used in cubic metres

134 m³

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

Meter number: 8323093

Latest reading: 6 Sep 2023
1 3 2 9 . 0 0

Previous reading: 5 Sep 2022
1 1 9 5 . 0 0

Your next meter reading is scheduled to take place by 28 Mar 2024

Previous bill's usage
143.00 m³

Charges

[redacted]

Bill date
13 Sep 2023

Billing period
From: 06 September 2022
To: 06 September 2023

Bill type
Metered - Direct Debit

[redacted]

Future payments

Next monthly payment

[redacted]

16 Oct 2023

For full list of future payments, see Your payment summary.

Struggling to pay? See p. 4

[redacted]

1571 - M - Document 1 of 1 - 14092023 - 5734322 - 5734410

Water

Period: 06 September 2022 to 31 March 2023

Variable Rate	£1.550 x	72.20m³
Standing Charge		
Period: 01 April 2023 to 06 September 2023		
Variable Rate	£1.716 x	61.80m³
Standing Charge		
Total Water		

[redacted]

Wastewater

Period: 06 September 2022 to 31 March 2023

Variable Rate	£1.976 x	68.59m³
Standing Charge		
Period: 01 April 2023 to 06 September 2023		
Variable Rate	£2.176 x	58.71m³
Standing Charge		
Total Wastewater		

[redacted]

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)	6	1.46	0.00	8.76
	Part flush Volume (litres)	3	2.96	0.00	8.88
WC (multiple fittings)	Average effective flushing Volume (litres)		4.42	0.00	0
Taps (excluding kitchen/utility room taps)	Flow rate (litres/min)	4.00	1.58	1.58	7.90
Bath (where shower also present)	Capacity to overflow(litres)	130.00	0.11	0.00	14.30
Shower (where bath also present)	Flow Rate(litres / minute)	4.00	4.37	0.00	17.48
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)	4.00	0.44	10.36	12.12
Washing Machine	(Litres/kg dry load)	6.00	2.1	0.00	12.60
Dishwasher	(Litres/place setting)	0.90	3.6	0.00	3.24
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)			85.28
	(6)	Contribution from greywater (litres/person/day)			0
	(7)	Contribution from rainwater (litres/person/day)			30
	(8)	Normalisation factor			0.91
	(9)	Total internal water consumption = [(5)-(6)-(7)]x(8) (litres/person/day)			50.30
	(10)	External water use			5.0
	(11)	Total water consumption (Building Regulation 17.K) =(9)+(10)(litres/person/day)			55.3

Installation Type	Make/Model (mandatory)	Litres/Person/Day
WC (dual flush)	Gerbrit Delta Concealed Cistern 12cm 6/3litres	17.64
Taps	Luxe monoblock	7.90
Baths (shower(s) present)	Apollo Back to the Wall	14.30
Showers (bath(s) present)	Bristan Shower outlet	17.48
Kitchen Taps	Bower Neptune Monoblock with flow restrictor	12.12
Washing Machines	Bosch WAQ 283S0GB A +++ rated	12.60
Dishwasher	Bosch Active Water	3.24
Contribution from rainwater (litres/person/day)	30	30

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Terms and Conditions
System Requirements

Annex A – Additional advice

Natural England offers the following additional advice:

Landscape
Paragraph 174 of the National Planning Policy Framework (NPPF) highlights the need to protect and enhance valued landscapes through the planning system. This application may present opportunities to protect and enhance locally valued landscapes, including any local landscape designations. You may want to consider whether any local landscape features or characteristics (such as ponds, woodland, or dry-stone walls) could be incorporated into the development to respond to and enhance local landscape character and distinctiveness, in line with any local landscape character assessments. Where the impacts of development are likely to be significant, a Landscape & Visual Impact Assessment should be provided with the proposal to inform decision making. We refer you to the Landscape Institute Guidelines for Landscape and Visual Impact Assessment for further guidance.

Best and most versatile agricultural land and soils
Local planning authorities are responsible for ensuring that they have sufficient detailed agricultural land classification (ALC) information to apply NPPF policies (Paragraphs 174 and 175). This is the case regardless of whether the proposed development is sufficiently large to consult Natural England. Further information is contained in GOV.UK guidance Agricultural Land Classification information is available on the Magic website on the Data.Gov.uk website. If you consider the proposal has significant implications for further loss of 'best and most versatile' agricultural land, we would be pleased to discuss the matter further.

Guidance on soil protection is available in the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, and we recommend its use in the design and construction of development, including any planning conditions. For mineral working and landfilling separate guidance on soil protection for site restoration and aftercare is available on Gov.uk website. Detailed guidance on soil handling for mineral sites is contained in the Institute of Quarrying *Good Practice Guide for Handling Soils in Mineral Workings*.

Should the development proceed, we advise that the developer uses an appropriately experienced soil specialist to advise on, and supervise soil handling, including identifying when soils are dry enough to be handled and how to make the best use of soils on site.

Protected Species
Natural England has produced standing advice[1] to help planning authorities understand the impact of particular developments on protected species. We advise you to refer to this advice. Natural England will only provide bespoke advice on protected species where they form part of a Site of Special Scientific Interest or in exceptional circumstances.

Local sites and priority habitats and species
You should consider the impacts of the proposed development on any local wildlife or geodiversity sites, in line with paragraphs 175 and179 of the NPPF and any relevant development plan policy. There may also be opportunities to enhance local sites and improve their connectivity. Natural England does not hold locally specific information on local sites and recommends further information is obtained from appropriate bodies such as the local records centre, wildlife trust, geoconservation groups or recording societies.

Priority habitats and Species are of particular importance for nature conservation and are included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. List of priority habitats and species can be found on Gov.uk.
Natural England does not routinely hold species data, such data should be collected when impacts on priority habitats or species are considered likely. Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land, further information including links to the open mosaic habitats inventory can be found here.

[1] https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals

Annex A – Additional advice

Ancient woodland, ancient and veteran trees
You should consider any impacts on ancient woodland and ancient and veteran trees in line with paragraph 180 of the NPPF. Natural England maintains the Ancient Woodland Inventory which can help identify ancient woodland. Natural England and the Forestry Commission have produced standing advice for planning authorities in relation to ancient woodland and ancient and veteran trees. It should be taken into account by planning authorities when determining relevant planning applications. Natural England will only provide bespoke advice on ancient woodland, ancient and veteran trees where they form part of a Site of Special Scientific Interest or in exceptional circumstances.

Environmental gains
Development should provide net gains for biodiversity in line with the NPPF paragraphs 174(d), 179 and 180. Development also provides opportunities to secure wider environmental gains, as outlined in the NPPF (paragraphs 8, 73, 104, 120,174, 175 and 180). We advise you to follow the mitigation hierarchy as set out in paragraph 180 of the NPPF and firstly consider what existing environmental features on and around the site can be retained or enhanced or what new features could be incorporated into the development proposal. Where onsite measures are not possible, you should consider off site measures. Opportunities for enhancement might include:

- Restoring a neglected hedgerow.
- Creating a new pond as an attractive feature on the site.
- Planting trees characteristic to the local area to make a positive contribution to the local landscape.
- Using native plants in landscaping schemes for better nectar and seed sources for bees and birds.
- Incorporating swift boxes or bat boxes into the design of new buildings.
- Designing lighting to encourage wildlife.
- Adding a green roof to new buildings.

Natural England's Biodiversity Metric 4.0 may be used to calculate biodiversity losses and gains for terrestrial and intertidal habitats and can be used to inform any development project. For small development sites the Small Sites Metric may be used. This is a simplified version of Biodiversity Metric 4.0 and is designed for use where certain criteria are met.

Natural England's Environmental Benefits from Nature tool may be used to identify opportunities to enhance wider benefits from nature and to avoid and minimise any negative impacts. It is designed to work alongside Biodiversity Metric 4.0 and is available as a beta test version.

Green Infrastructure
Natural England's Green Infrastructure Framework provides evidence-based advice and tools on how to design, deliver and manage green infrastructure (GI) . GI should create and maintain green liveable places that enable people to experience and connect with nature, and that offer everyone, wherever they live, access to good quality parks, greenspaces, recreational, walking and cycling routes that are inclusive, safe, welcoming, well-managed and accessible for all. GI provision should enhance ecological networks, support ecosystems services and connect as a living network at local, regional and national scales.

Development should be designed to meet the 15 Green Infrastructure Principles. The Green Infrastructure Standards can be used to inform the quality, quantity and type of green infrastructure to be provided. Major development should have a GI plan including a long-term delivery and management plan. Relevant aspects of local authority green infrastructure strategies should be delivered where appropriate.

GI mapping resources are available here and here. These can be used to help assess deficiencies in greenspace provision and identify priority locations for new GI provision.

Access and Recreation
Natural England encourages any proposal to incorporate measures to help improve people's access to the natural environment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways should be considered. Links to urban fringe areas should also be explored to strengthen access networks, reduce fragmentation, and promote wider green infrastructure.

Annex A – Additional advice

Rights of Way, Access land, Coastal access and National Trails
Paragraphs 100 and 174 of the NPPF highlight the important of public rights of way and access. Development should consider potential impacts on access land, common land, rights of way and coastal access routes in the vicinity of the development. Consideration should also be given to the potential impacts on the any nearby National Trails. The National Trails website www.nationaltrail.co.uk provides information including contact details for the National Trail Officer. Appropriate mitigation measures should be incorporated for any adverse impacts.

Biodiversity duty
Your authority has a duty to have regard to conserving biodiversity as part of your decision making. Conserving biodiversity can also include restoration or enhancement to a population or habitat. Further information is available here.