

20th December 2023

Water Neutrality in Sussex North

Christmas Showcase Special



Agenda

- 11.00** **Welcome and housekeeping**
- 11:05** **JBA** - Paul Eccleston
- 11:20** **WSP** - James Ellaway
- 11:35** **The Bathroom Manufacturer Association (bma)** - Andy McLean
- 11:50** **SDS Ltd** - Sam Burgess
- 12:05** **Aquality** - Lutz Johnen
- 12:20** **Ecoprod** - Jacob Tompkins
- 12:35** **Groundbreaker** - Steve Leigh
- 12:55** **Close**

Housekeeping



Please note we will be recording today's session; this will be available on our website shortly: [Water Neutrality \(southernwater.co.uk\)](https://southernwater.co.uk)



Please remain on mute during the presentations.



We will not have time for questions during this session, any questions can be sent direct to the third party



Southern Water does **not** endorse the companies in this showcase



Water neutrality for ‘very minor’ developments

Water Neutrality Webinar, 20 December 2023

Paul Eccleston, JBA Consulting



Major vs minor development



Major development

- Housing developments of 10 or more units or >0.5Ha.
- Commercial development with a floorspace >1,000m² or >1Ha. in total
- Change of use of >1,000m²
- Mineral extraction
- Waste development

Minor development

- Housing developments of 1 to 9 units and <0.5Ha.
- Commercial development with a floorspace <1,000m² and <1Ha. in total
- Gypsy and traveller sites up to 9 pitches
- Household applications
- Change of use
- Listed building consent



'Very minor' development?



© the-green-room.co.uk

Annexes

**Single-dwelling
change of use**



© Waltham Forest Council



© self-build.co.uk

**Self-build and
one-off
developers**

Types of applications impacted by water neutrality



Screened in

- **Any development proposals that consume mains water are potentially impacted.**
- General Permitted Development Order (GDPO) except Schedule 2 Parts 1 and 2
- Applications for non-material amendments

Screened out

- Housing applications except annexes and swimming pools.
- GDPO Schedule 2 Part 1: Development within the curtilage of a dwellinghouse
- GDPO Schedule 2 Part 2: Minor operations



Typical characteristics of very minor developers



- Development as a personal project, not a career.
- Timelines may be related to life events (illness, caring, retirement, children returning home after university etc).
- No access to other sites within Sussex North where offsetting can be applied.
- All their development risk is in one site.



Key issues for very minor developers



- Cost of *demonstrating* Water Neutrality is high (as a % of total cost of the development) compared to larger developers.
- Conversions often are working within greater constraints of the existing site and buildings than would be a case for new builds.
- Cost and time-delay of a s106 agreement can be prohibitive.
- Non-material amendments – may require material amendments just to accommodate water neutrality.
- Not a priority for LPAs.



A close-up photograph of a red brick wall. The bricks are arranged in a standard running bond pattern. The color of the bricks varies from a deep red to a lighter, more orange-red hue. The mortar joints are a light, off-white color. Overlaid on the center of the image is the text "water" and "neutrality" in a white, cursive, handwritten-style font. The word "water" is positioned above "neutrality", and they are both centered horizontally. The text is semi-transparent, allowing the texture of the bricks to be seen through it.

water
neutrality

Water neutrality statements for very minor developments

Quantifying existing / prior usage

- Water bills and meter readings
- Flow testing of existing fittings
- Evidence of prior use e.g. number of employees



Optimising efficiency

- Selection of taps and fittings
- High-efficiency appliances
- Rainwater harvesting (RwH)
- Greywater harvesting (GwH)



Offsetting

- Replacing high-use fittings
- High-efficiency appliances
- Retrofit RwH or GwH
- s106 agreements
- Credits?



Solutions

National government

- Appliance labelling and minimum efficiency standards.

LPAs in Sussex North

- A streamlined process where the costs and timescales are clear and the risks are minimised.
- Access to the SNOWS scheme.
- Clarity on how to demonstrate that interventions will be in-perpetuity.

Southern Water

- Environmental efficiency incentives.

Developers

- General openness to adopting water efficiency (including RWH).
- Evidence suggests on-site offsetting is often achievable but can be very dependent upon replacing one or two inefficient fittings.

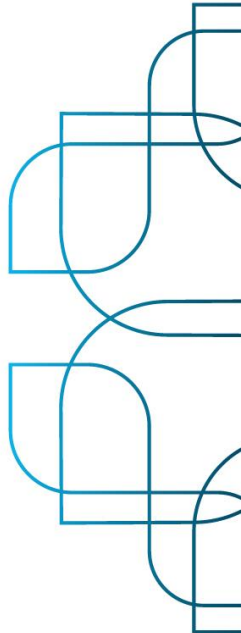
Retail and suppliers

- Appliance labelling (some specialists filling gap but major suppliers often poor).



Thank you, any questions?

paul.eccleston@jbaconsulting.com





Southern Water
Water Neutrality Webinar
20 December 2023

INTRODUCTION



JAMES ELLAWAY

james.ellaway@wsp.com

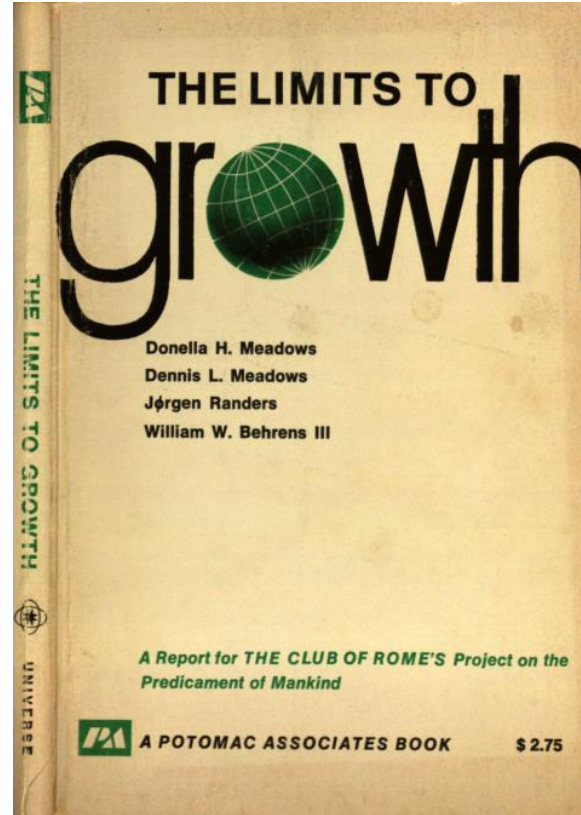
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Limits to growth

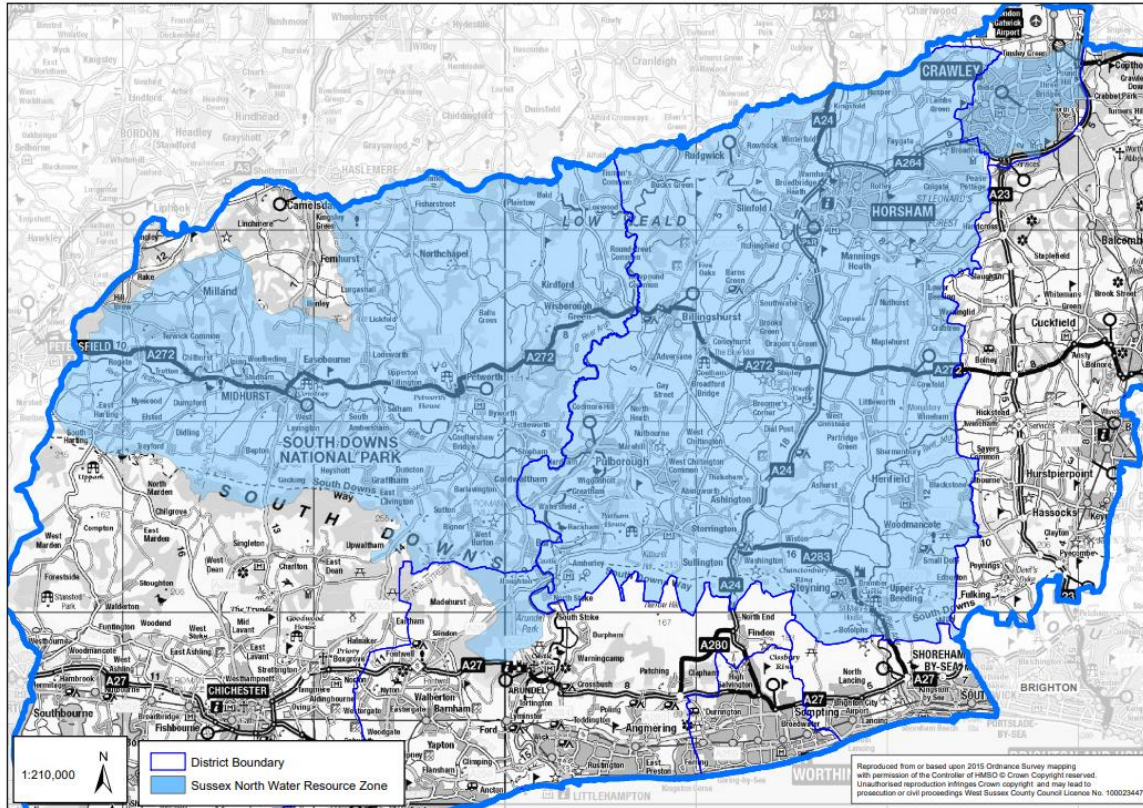


An Essay on the Principle of Population

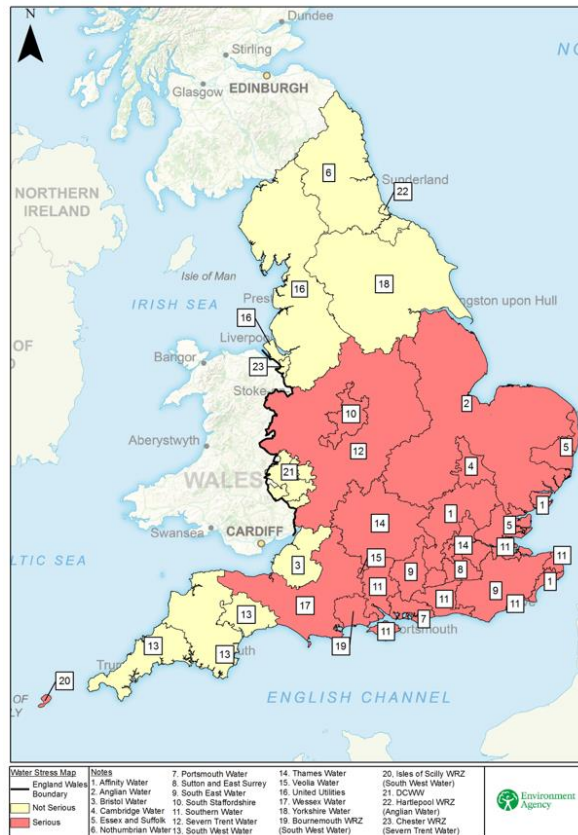
Thomas Malthus



Sussex North WRZ



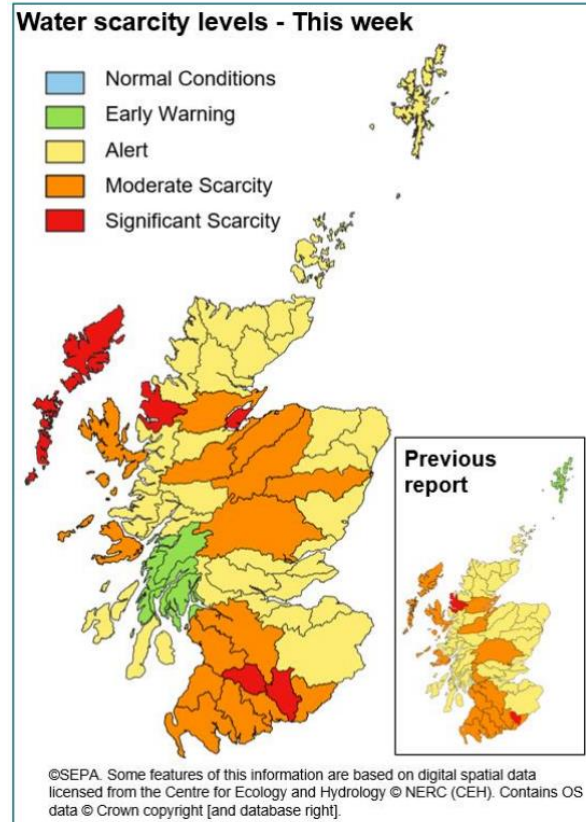
Water stressed areas in England



Scotland is OK though?



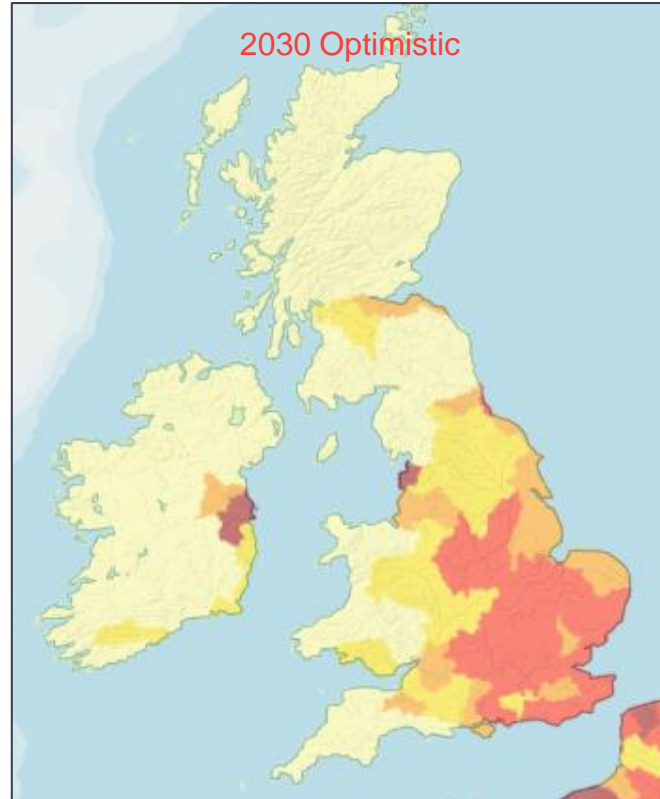
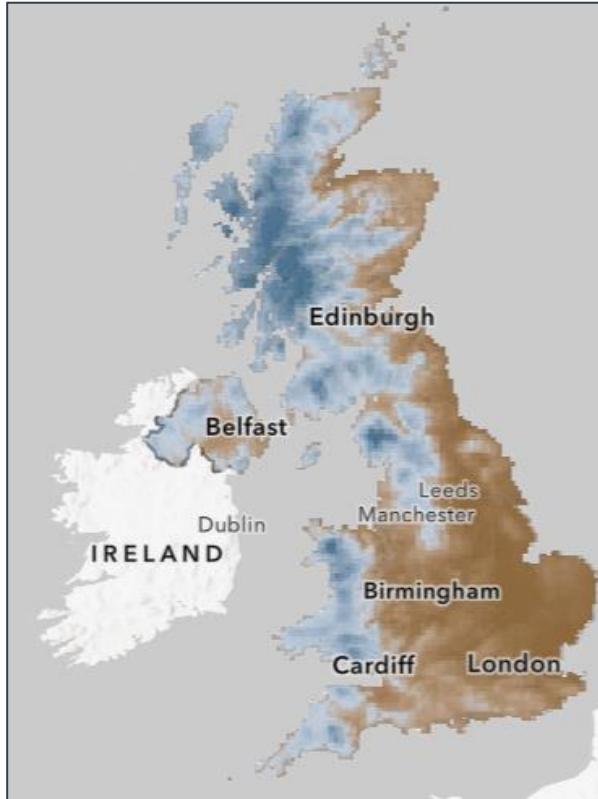
Water scarcity in Scotland!?



Meanwhile, in East Anglia

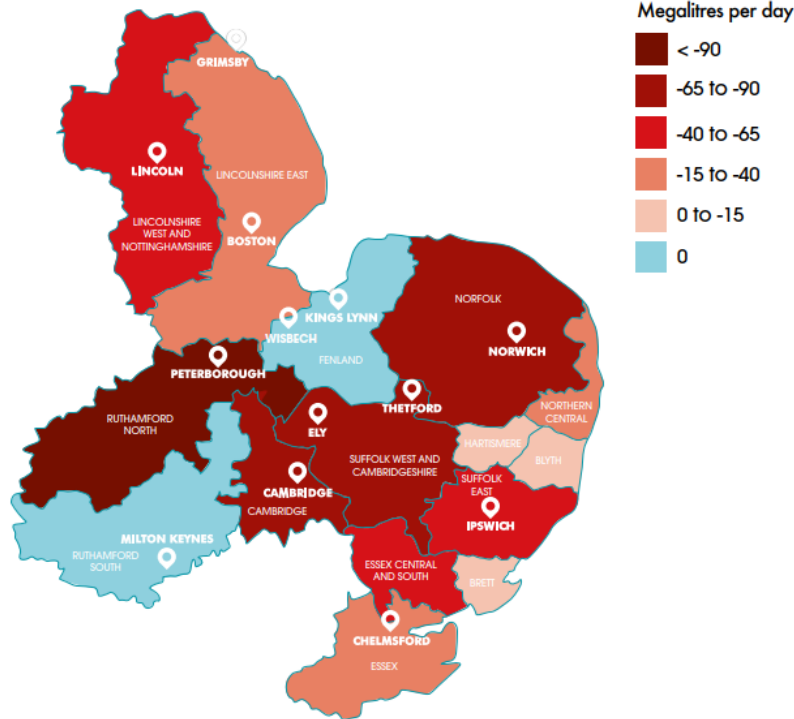


Climate change is changing rainfall distribution



The challenge in Cambridge is acute – 80lppd

Figure iii: Projected supply-demand deficits in 2050 (Public Water Supply only, under 'Resilience' (BAU+) Environmental Destination scenario)



NEWS

Home Cost of Living War in Ukraine Climate UK World Business Politics Culture Tech

England Local News Regions Cambridgeshire

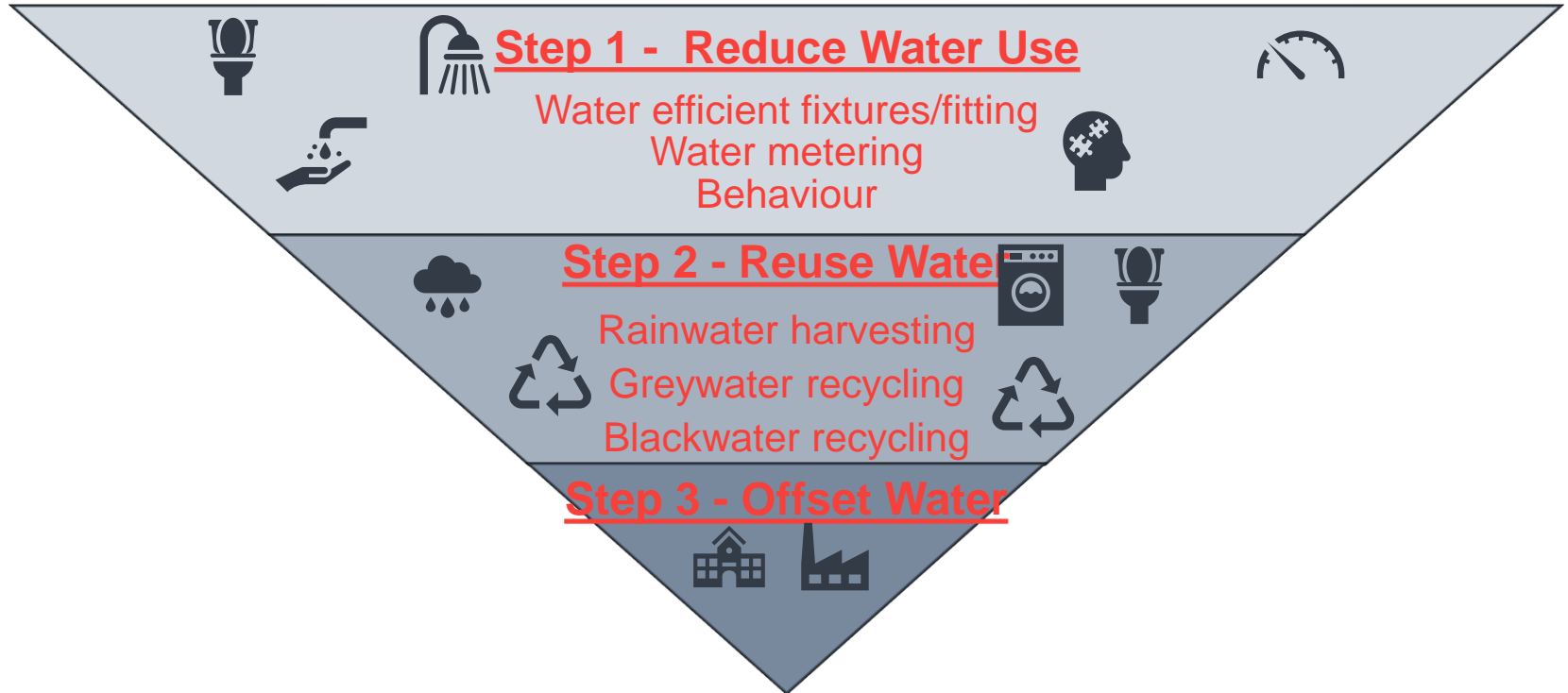
Cambridge house building to be 'supercharged' - Gove

© 24 July



Michael Gove said Cambridge's growth was being slowed by a lack of laboratory space and new housing

Achieving water neutrality



WSP has:



Award-winning water efficiency experience:

- 750,000 customer contacts
- 61,000 water audits completed
- 314,000 water efficiency products fitted
- Saving an average 55l/property/day.



An innovative online water efficiency virtual house engagement tool for domestic customers (in dev).



Embedded staff in Southern Water and other water companies, with great client contacts.



Engineering & scientific know-how plus experience working with the regulators.

NORTHUMBRIAN WATER *living water* **ESSEX & SUFFOLK WATER** *living water*



Wessex Water
YTL GROUP

SWIG
Sustainable
Water Industry Group



We can solve your water neutrality challenges...



Our experienced multi-disciplinary team...



can provide early advice to inform your developing masterplans...



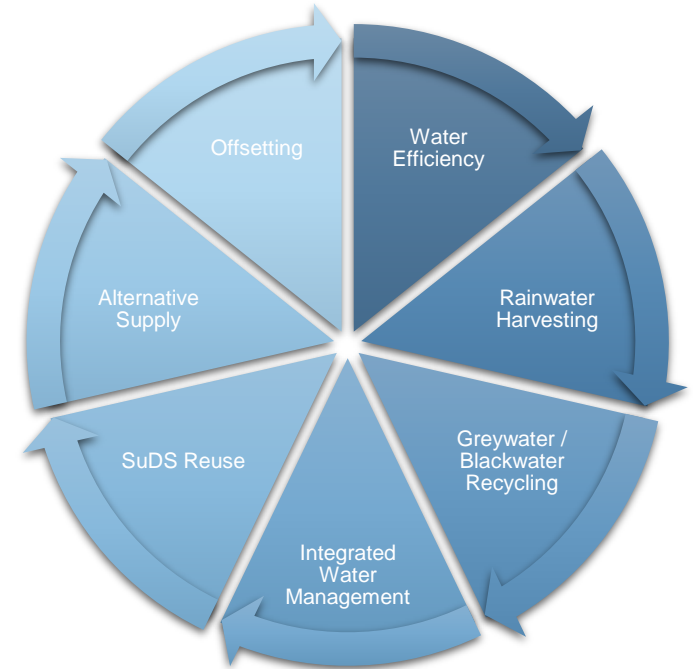
identify mitigation and offset solutions...



and design a compliant integrated water management strategy.



Our early professional advice offers great VFM!

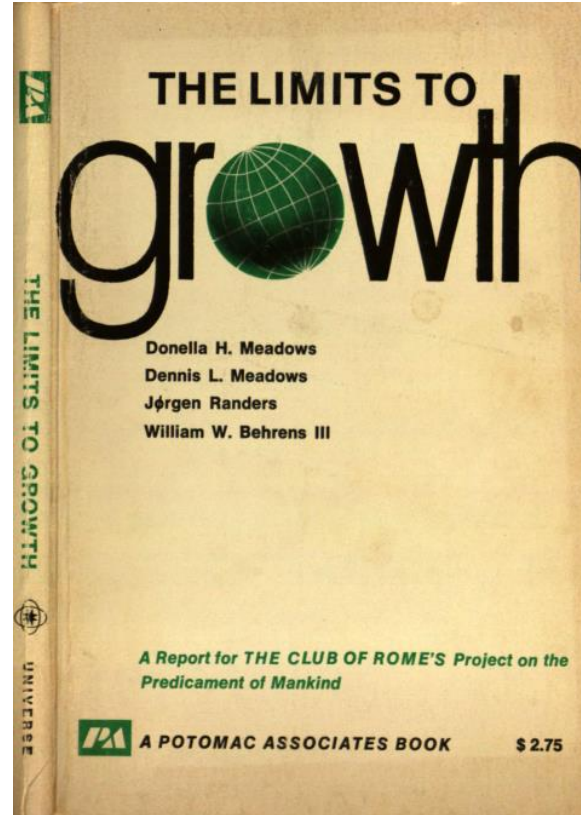


So, have we reached a limit to growth?



An Essay on the Principle of Population

Thomas Malthus



THANK YOU

CONTACT DETAILS



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Water Saving Technologies
20th December 2023

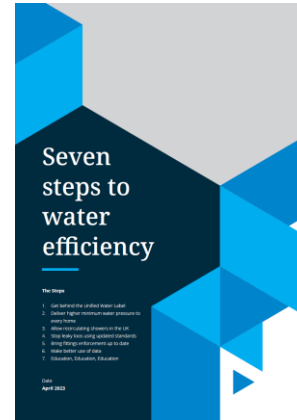
Water Efficiency

Our organisation has two current areas of focus: sustainability and product compliance.

Seven steps to water efficiency

The Steps

1. Get behind the Water Label
2. Deliver higher minimum water pressure to every home
3. Allow recirculating showers in the UK
4. Stop leaky loos using updated standards
5. Bring fittings enforcement up to date
6. Make better use of data
7. Education, Education, Education



The Bathroom

Basin Taps

Baths

Showers Instant Heating Electric

Shower Control Valves

Shower Handsets

Shower Outlet

WC Cisterns

WC Pans



Basin Taps

Cold Start

Warm Start

Flow Limiters

Spray Pattern Technologies

Aerators

Flow Regulators

Timed flow

Electronic Sensor Taps

Auto Shut off



Baths

Reduced Depth

Lower Overflow position

Smaller 1700mm reduce to 1500mm

Pre-Set Measured Fill



Showers

Integrated electronic timers

Instant Heated Water

Boost Functions

Low Flow Shower Head Designs

Flow Regulators

ECO Functions for optimum water energy saving.

Warm Start

Auto Shut Off (Valve Controls)



Shower Handsets /Outlets

Spray Technologies / micro holes

Flow Regulators

Air Introduction

Atomising Showers

Boost Button

Venturi Technology



Recirculating Showers

Building Regs

“Greywater is domestic wastewater excluding faecal matter and urine. When appropriately treated this may replace the use of wholesome water in WCs, Urinals, irrigation and washing machines.”

Water Supply (Water Quality) Regulations 2010

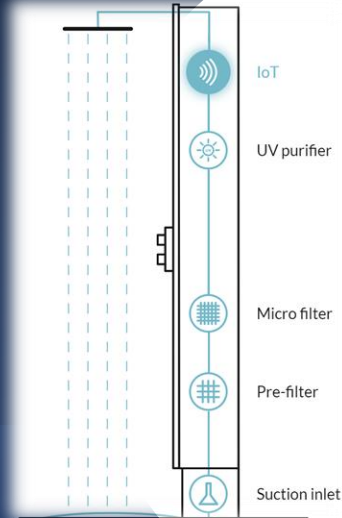
4.—(1) Water supplied to premises—

(a) for such domestic purposes as consist in or include, cooking, drinking, food preparation or **washing**, or.....

is, subject to paragraphs (4) and (5), to be regarded as **wholesome**

Estimates depending on the unit 10min shower can save up 60% of water

8 litre per min reduced to 3.2 litres per min.



WC Pans and Cisterns

Delayed Filling

Inlet Valve Leak Detection

Delayed Fill Valves

Reduced Flush

Dual Flush

Pressurised Cisterns

Infrared Detection

Macerators

Leak Reduction Outlet

Vacuum Products

Syphon Use

Storage Grey Water
Systems

Bowl /Sump Design

Composting Toilet



Calculation summary:

Installation type	Unit of measure	Capacity / flow rate	Use factor	Fixed use	Litres / person / day
WCs (single flush)	Flush volume (litres)	2.38	4.42	0	7.04
Taps (excl. kitchen/utility room)	Flow rate (litres/minute)	4.6	1.58	1.58	8.85
Bath	Capacity to overflow (litres)	80	0.11	0	8.8
Shower	Flow rate (litres / minute)	3.2	4.37	0	13.98
Kitchen/utility room sink taps	Flow rate (litres / minute)	6	0.44	10.36	13
Washing machine	Litres / kg dry load	8.17	2.1	0	17.16
Dishwasher	Litres / place setting	1.25	3.6	0	4.5
Waste disposal unit	Litres / use		3.08	0	
Water softener	Litres / person / day		1.00	0	

Total Calculated use (litres/person/day)	80.22
Contribution from greywater (litres/person/day)	
Contribution from rainwater (litres/person/day)	
Normalisation factor	0.91
Total internal water consumption (litres/person/day)	73.00
External water use	5.00
Total water consumption (Building Regulation 17.K)	78.00

Any Questions

Please email

andy.mclean@bathroom-association.org.uk



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Infrastructure
Systems



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WATER TECHNOLOGY**

OPTIMISED DESIGN, ENGINEERED TO LAST

SDS Water Reuse

Sam Burgess – SDS Water Reuse Manager

E. sam.burgess@sdslimited.com M. 07870 483291

Contents

Who are SDS?

Water – The Next Big Global Challenge

What is Greywater Recycling?

What is Rainwater Harvesting?

Smart, Smarter & Smarter Again

Case Studies, Demonstrators & Results

Technology & How it Can Help – The Bigger
Picture

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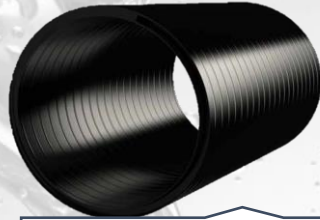
Who are SDS?

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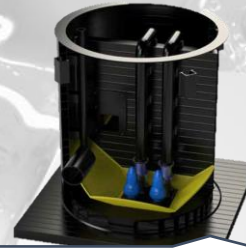
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GEOLight



HDPE Pipe Systems



Pump Chambers &
Manholes



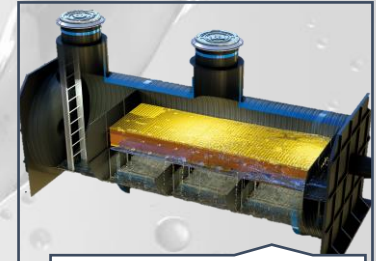
Aqua-Swirl



On-Demand
Greywater



Rainwater
Harvesting

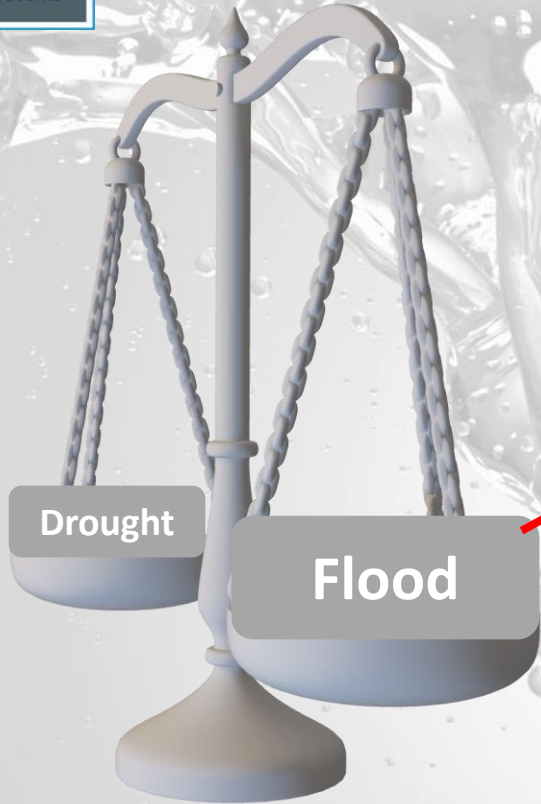


Aqua-Filter



Water - The Next Big Global Environmental Challenge

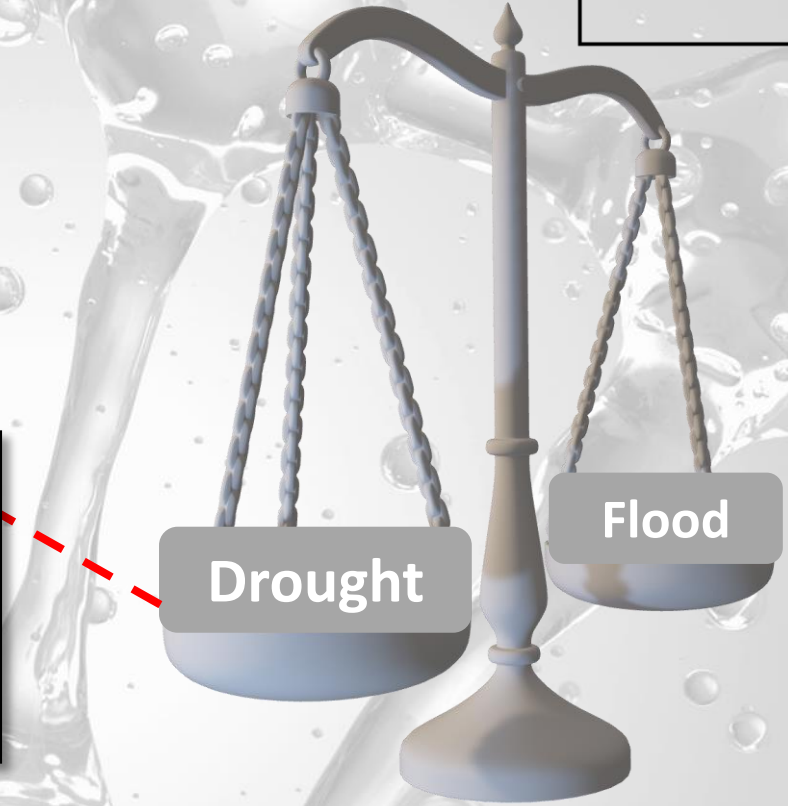
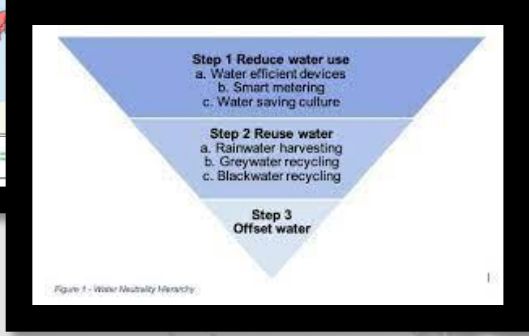
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Water - The Next Big Global Environmental Challenge

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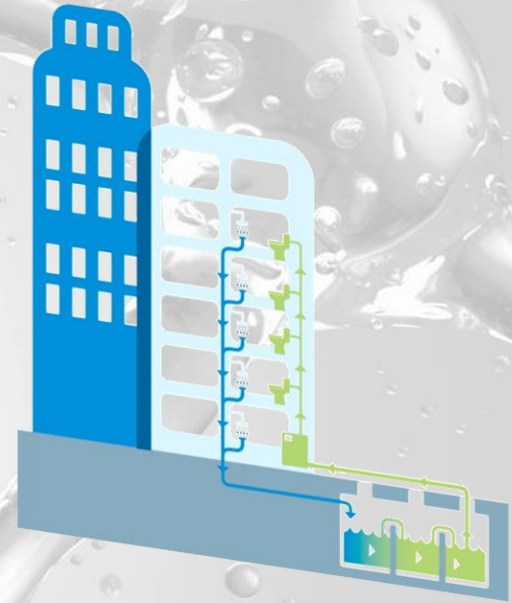
What is Greywater Recycling?

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Collection of bath and shower water for sufficient treatment to enable re-use in non-potable applications i.e.

- From hotel showers / baths to supply toilet flushing
- From communal flats bathrooms (excluding foul) for toilet flushing, laundry and irrigation.



There are two main types of System used in the UK.

swimming pool effluent but is generally



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Greywater On Demand - Basic Principles of Treatment

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The plant only operates when required to replace water drawn from the treated water tank

The collection and treated water tanks are typically sized for 6-12hrs of collection or demand, respectively.

A low dosage of chlorine is added to collection tank to ensure sanitary conditions and to aid first stage disc filtration (100-125 microns).

The filtered greywater is then forced through the ultramembrane under high pressure & flowrate.

The system automatically backwashes based on pressure drop across filters

The treated water tank is monitored and dosed with low level chlorine.



The Plant shown
here can treat up
to 48m³/day

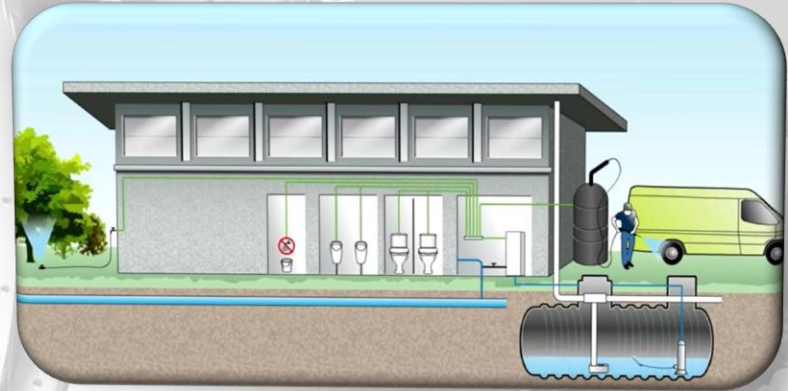
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Rainwater Harvesting – Basic Principles

Variety Of Tank Types

Filtration, Calmed Inlets,
Floating Extraction (Inc
Blue/Green Roofs)
Variety of onward Pumping
& Control – VSD,
Duty/Standby, WRAS
approved top up systems &
BMS integration



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Rainwater Harvesting – Design Principles

Sizing

- Amount and intensity of rainfall – geographic data.
- Size and type of the collection surface.
- Building usage including number and type of intended applications (present and future).

Calculation methods

- The simplified approach. – 50l per person per day (domestic) – Not often used.
- The intermediate approach
- The detailed approach. – This is what is commonly used for Water Neutrality

The Design

- Given the information required most good manufacturers should be able to design a suitable system to comply with BSEN 16941-1:2018 (formerly BS 8515).
- Tank sized to hold 18 days of requirement.

Rainwater Harvesting – Design Principles

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SMART, SMARTER & SMARTER Again

We have
been on a
journey:

The aim:

- To make at-source **rainwater harvesting, reuse and control** “smart”, utilising existing or required attenuation volume.
- To tackle both flooding and drought with one intelligent system capable of doing many different things.



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Rainfall forecast received in mm/24hours.

Intellistorm monitors and awaits next forecast.

Intellistorm Controls the outlet of the attenuation volume.

Attenuation void calculation is completed (catchment (m²) x rainfall (mm) x coefficient).

Intellistorm creates & maintains necessary tank void, retaining water at the max permissible level for reuse.

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Benefits of Intellistorm

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No need for extra storage of the RWH volume.

Saving in space and cost of tank and excavation .

Maximum possible storage of rainwater is achieved.

The water is discharged to the surface water sewer before the rain event.

Reduced load on stressed sewers at peak storm times.

Stand alone system not needing Wi-Fi signal to operate.

Feedback of operation to web page available through the SDS SYMBiotIC system.

Programmable to individual requirements.



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Intellistorm SuDS Case Study – Babraham Research Campus

Initially tasked with designing tanks, in line with specification, for SW attenuation, with a sump dug to supply RWH. However, having identified issues with the design, SDS provided options for the client for a functional system, maximising the potential for water reuse whilst maintaining the SW attenuation qualities.

Consequently, the Campus has an unbroken supply of water for servicing the campus needs, with sufficient water available for WC flushing and for irrigation/ maintenance.

To comply with the Environment Act 2021 and the Council's Doubling Nature Strategy, it was important that the development, and its water strategy, should not adversely impact on several European protected species, (bats, great crested newts and otters), or priority species (water voles). In fact, the development can boast a substantial net gain in biodiversity of 32%, some 3x the mandatory requirement.



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Case Study – Barratt Developments Z House

“The Z House is a unique zero carbon concept home that showcases the future of the sustainable living in the UK”

SDS supplied and installed SDS WaterBank™ ‘Intellistorm®’ system, in this instance an above ground system was deployed to irrigate a Green Wall.

By actively monitoring the weather forecasts, Intellistorm® controls the level of water held in the tank; in dry spells it will keep the green wall watered and, when it’s raining, it will let nature do the job; it will even prompt you if the tank requires topping up to be able to keep the green wall alive – otherwise it is happy looking after itself!

Intellistorm® balances nature’s demand for irrigation and wildlife’s need for water with the desire to capture stormwater during rainfall, so the smart water tank ensures there is always capacity for absorbing unexpected rainfall.

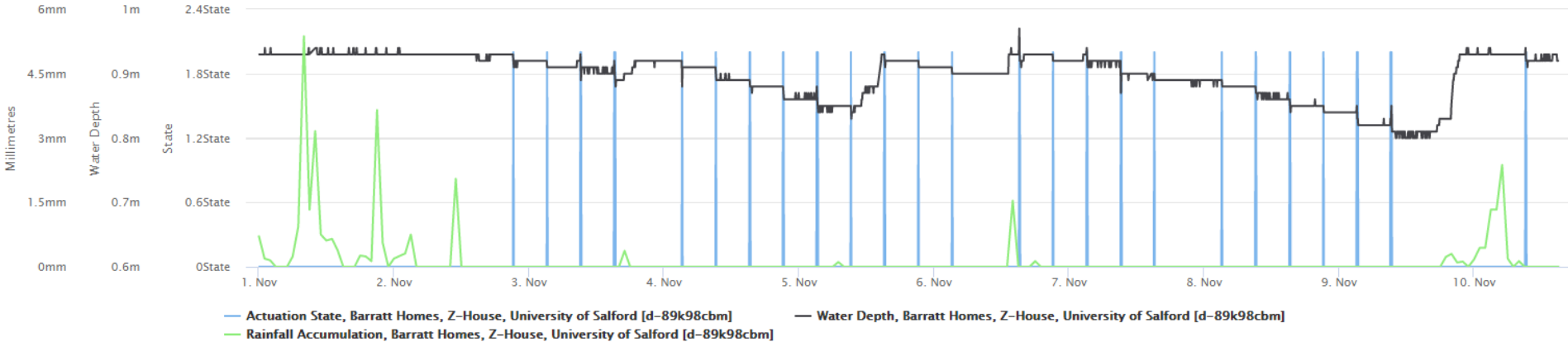


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Case Study - Barratt Developments Z House

01-Nov-2021 00:00/10-Nov-2021 15:00



- The SDS WaterBank™ ‘Intellistorm®’ system maximises rainwater capture for reuse, such as garden irrigation or car washing, whilst also preventing stormwater from overloading the drainage system. The system will save about 25L/day which is up to 9,000L of potable water saved every year.

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Slowing the flow of SW to CSO's Combe Martin – South West Water

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Target:

- Reduce the operation of combined sewer overflows by surface water removal at peak times
- Dynamic capacity created before rainfall
- Solar powered solution – faster installs, less intrusive
- Measurable targets:
Looking for 1-in-6month and 1-in-30year impact

Outcomes:

- Considerable customer re-use (2 types of customer?)
- Community engagement and action vital
- Significant volumes of water captured and reused (19 times tank volume)

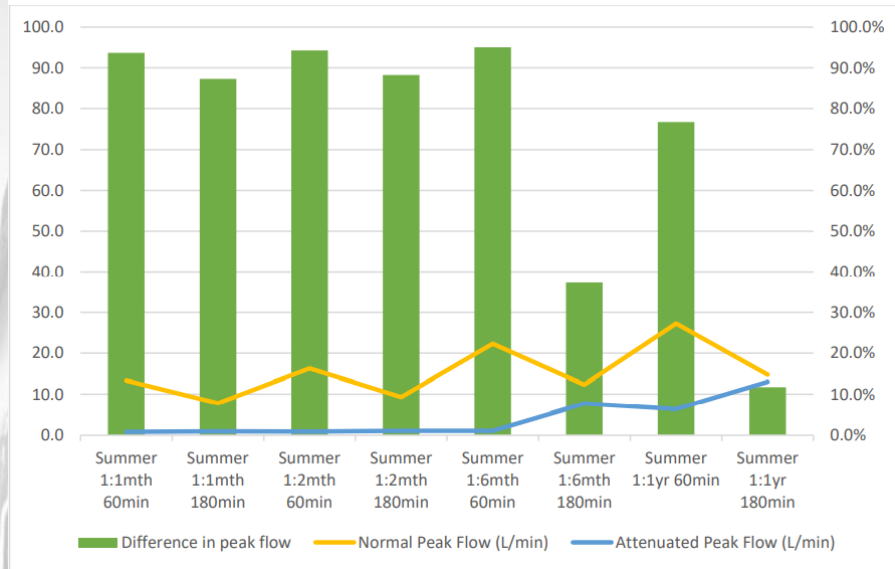


Smart Tanks can be blended in with the surroundings to provide useful water, great attenuation whilst being cost-effective and aesthetic.

Combe Martin - The Data

For all events up to and including a 1-in-6-month 60-min storm our Intellistorm smart tanks can achieve a percentage difference of at least 80%, resulting in a peak time difference of up to 53 minutes.

A peak flow percentage difference of over 40% is still achieved for up to a 1-in-30 year 60-min storm event.



Graph reproduced courtesy of Stantec and South West Water

What about the Bigger Picture?

What if new developments could harness their attenuation volume for Reuse as well?





Thank You

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For further information please visit www.sdslimited.com or please feel free to contact us and we will be happy to help!

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Southern Water Water Neutrality Webinar 20th Dec 2023



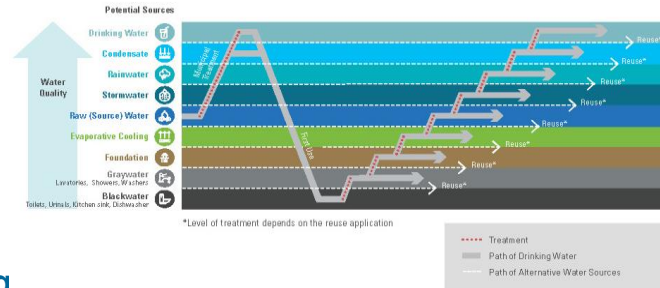
Aquality

Aquality Trading & Consulting Ltd is one of the longest established provider of non-potable water solutions in the UK with offices in France and Germany.

We offer:

- free initial design assistance,
- detailed design,
- system supply,
- installation,
- maintenance / (remote) monitoring
- a full after sales service package and
- consultancy including water neutrality statements
- WN off-set assessments (desktop / site surveys)
- installation of off-set schemes

ATTRIBUTING YOUR WATER SOURCES CORRECTLY



Carbon neutral since 2021



AQUALITY Trading & Consulting Ltd.
www.aqua-lity.co.uk



Rain- / stormwater harvesting systems



Rainwater harvesting references



Communal stormwater harvesting reference



Clay Farm, Cambridge

Includes:

Centralised rain-/stormwater harvesting in 208 dwelling development operating since 2018.

Water from roofs and hardstanding is collected and treated via reed bed.

Treated water stored in 250m³ underground tank and distributed via central plant room for WC use.

Impact:

~5,000m³ p.a. water saving and sewer flow reduction allowing zero run-off in non extreme events



Combined RW / SW harvesting and attenuation systems using weather data (Aqua-Storm-Control - ASC)



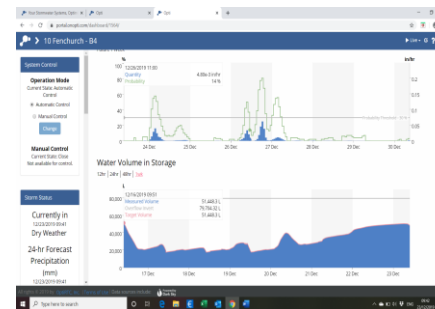
Combined RWH / attenuation with ASC



**1 Triton Square,
London**
Operating since
2020



10 Fenchurch Avenue, London
Operating since 2018

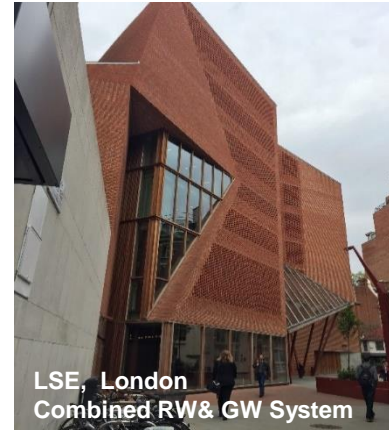


Greywater recycling systems

Bio-mechanical greywater recycling systems:



Greywater recycling references



Case study - London Kings Cross

High level sustainability was planned in by Camden Council.

Flood management in central areas

So far 6 greywater recycling systems and 7 rainwater harvesting systems were installed in separate buildings ...more in design.



At present, ~19,000m³ of water can be saved per year.

Approx. 2500m³ of rainwater will be flushing WCs and not hit the sewer system in a rain event.

Approx. 16,500m³ of greywater will be recycle for use in WCs and not enter the sewer system as foul water.



Case study – Southbank development

Situation:

6 residential towers & 2 commercial office towers development with 23,000m² area connected to attenuation tanks

- a) Attenuation tank (requirement): ~1000m³ in 5 tanks
- b) High cooling tower demand for office towers
- c) CFSH GWR requirement for apartments

Solution:

Active combined attenuation/rainwater harvesting tank & GWR supply between buildings.

Savings:

- Construction cost for 345m³ tank including plant space.
- Higher water efficiency than stand alone RWH system
- Less run-off due to higher efficiency
- Automatic performance monitoring available
- RW: Water savings of ~6,900m³ p.a. = ~£13,000 p.a.
- GW: Water savings of ~36,000m³ p.a. = ~£68,000 p.a.



How can we help?

www.aqua-lity.co.uk





Welcome

Ecoprod and Water Neutrality

Prof Jacob Tompkins OBE
Water Strategy Consultant

Our Philosophy

- + Water neutrality is straightforward and achievable
- + Must be done properly within the spirit of the scheme
- + The concept will be replicated in other areas
- + Transparent, effective and good value

Follow the Waterwise Approach

- + Optimised fittings
 - ✓ Full range of products
- + Greywater reuse and rainwater harvesting
 - ✓ Work with partners or in-house
- + Offsets
 - ✓ Exclusive range of products for affordable offset

Offset Concept

- + Offsets close to the development
- + Offsets with as few sites as possible
- + Offset longevity secured
- + 120% offset
- + Fitting delivered in months
- + Evidence to confirm Water Neutrality

Example Products



URIMAT is a leading manufacturer of waterless urinals and environmentally friendly products in public and semi-public sanitary facilities.



Xeros Technology

We are a collective of innovators who believe in a future where limited resources are no longer limited. So far, our technology has saved millions of litres of water and could prevent billions of microfibrils from ending up in our oceans.

Powered by science, we create technologies engineered for our future. Launching our textiles technologies is just the beginning of our long-term mission to reduce waste wherever possible. Today, we reduce the impact of clothing on our planet, conserving water and preventing waste. We are leading environmental technology experts. Making the invisible, visible.

hansgrohe

With constant emphasis on higher standards, our visionary concepts help make life in the bathroom easier. A culture of innovation combined with brilliantly simple, ultra-reliable technology ensures we create timeless and sophisticated products. First-class products, award-winning design, sustainable production and excellent service. The Hansgrohe Group is committed to operating sustainably and acting responsibly.

CONTI+

CONTI+ has been developing and producing high-quality shower and wash-basin fittings for public, semi-public and commercial buildings as well as for applications in the medical sector since 1974. These are supplemented under the CONTI+ brand to create smart systems solutions and holistic hygiene concepts. CONTI+ products enable users to handle drinking water sustainably and offer maximum safety and hygiene.



Aim to provide a range of products that offer cost-effective solutions to support sustainable living. A one-stop online shop for rainwater harvesting equipment and the UK's leading distributor of water butts for domestic and commercial usage. We are water conservation specialists who aim to supply the highest quality water butts and water tanks.



A purpose driven enterprise with the mission to help the world be more water efficient through the development and commercialisation of domestic micro-greywater reuse technology. Sustainable Water SDG6 and Affordable Clean Energy SDG7 are challenges facing the water companies and the world's population. Aqua Gratis with SMART meter is low energy, cost effective, easy to fit, use and maintain. It reduces domestic water consumption by up to 45%.

NEOPERL

Neoperl is a sought-after expert on all matters of drinking water and forges ahead with the internationalization of its industrial business. A leading technology company that offers innovative solutions.

Aguardio

Empowering sustainability through innovative water-saving IoT solutions. Our mission is to reduce water and energy consumption through data & nudging. Aguardio helps building owners address United Nations Sustainable Development Goals.

ecoBETA® SAVE WATER. SAVE MONEY

ecoBETA's award-winning proprietary solutions are capable of reducing WC water usage by up to 50% across all commercially available cistern flushing systems currently installed worldwide. In addition, ecoBETA supplies a wide range of dedicated water saving devices for use in all consumer applications such as tap aerators, reduced flow showerheads and more.

Extant Experience

- + Currently working with two developers
- + Can also calculate carbon reductions, BNG etc
- + Focussed on golf courses, garden centres, hotels and leisure
- + Delivered hundreds of water efficiency projects

Indicative Costs

- + Flat fee for a Water Neutrality Statement £12,000.00 plus £250.00 per property
- + Offsets approx. £3,000 per property
 - ✓ 100,000 litres will cost approx. £750
 - ✓ Desktop works £450 per day: research, appointment setting, land registry activity
 - ✓ Site works design and engineering charge £750 per day: includes all works with third party offset potential, specification design and set out, water calculations
 - ✓ Consultation days £1000 per day: meetings with client, District Councils, Southern Water, Natural England, Environmental Agency



How can we help your business?

enquiries@ecoprod.co.uk

T 0844 800 7890.

33-35 Portugal Road. Woking GU21 5JE

www.ecoprod.co.uk



Groundbreaker[®]

THE GREEN CONNECTION

waterwise
Affiliate

W: www.groundbreaker.co.uk

Why:

We need to manage water supplies and how it affects YOU

Architects, Engineers, Developers,
Contractors, Housing Associations,
Planning Authorities, Holiday Parks,
Plumbers, Kitchen Fitters, etc.

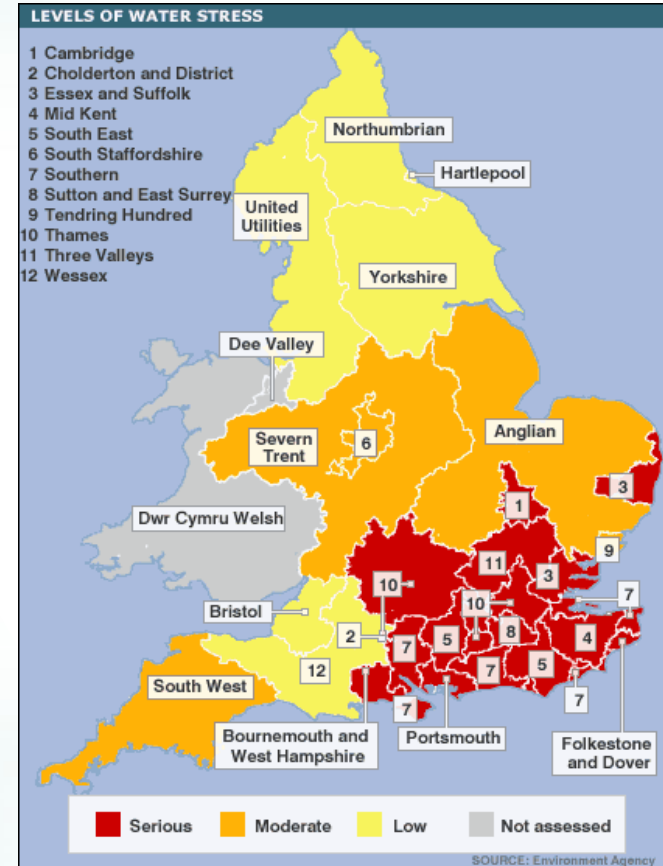


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Water stressed areas:

- The UK is running out of water!
- Particularly in high density population areas.
- A changing climate.

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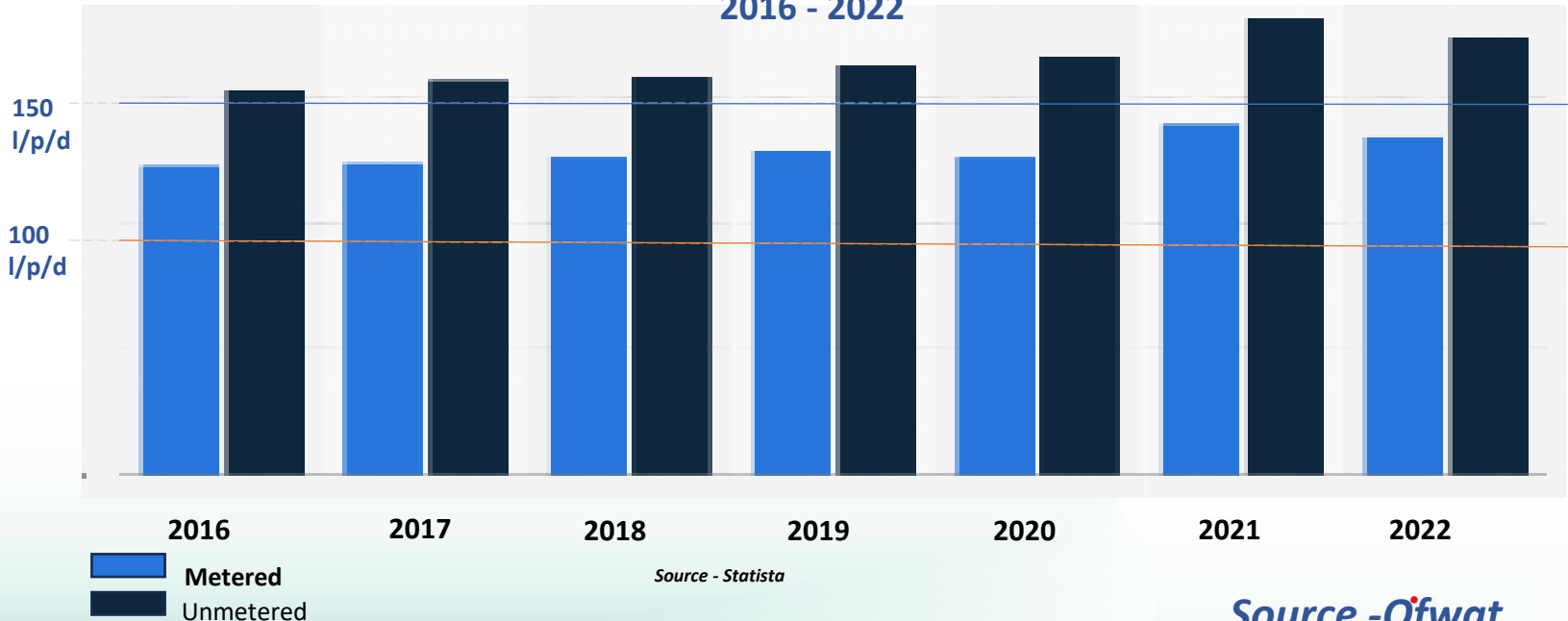
Terms and conditions already being applied:

- All water companies are tasked to reduce carbon footprint.
- Target to reduce per capita consumption of water by about 20%
- Water companies & Planning authorities already applying "conditions" to planning applications & requisitions on "Water Neutrality"
- Cutting consumption reduces operating costs (water & waste)



Current incentives are NOT working:

Average Daily Household Water Consumption
2016 - 2022



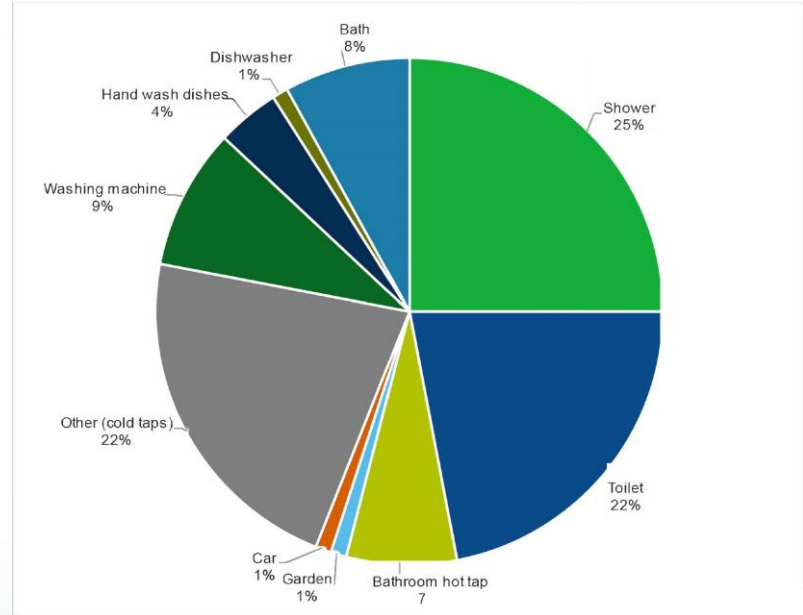
Source -Ofwat

Not just us saying it:

- Time is the key.
- The greater the flow, the more water wasted.
- Reduce the flow to save water.
- Saving water also saves energy.
- Saving energy saves money.

Typical Household Water Usage : UK

Source: DEFRA Consultation on Mandatory Water Efficiency Labelling, September 2022



How can we help?

NRV² LoFlo 

Patent GB2577543B

Whole site flow management and protection against back flow – usually fitted by water company.

LoFloInline 

In line device, fitted retrospectively downstream of internal stop tap or water meter, also with backflow protection.

NB: Neither product affects water pressures.

W: www.groundbreaker.co.uk



NRv² LoFlo®

Reduce per capita consumption at a stroke:

- A simple cost-effective plug and play system
- Installed at any time in the life of a water service.
- Multiple options for output.
- No excavation or access required.
- Excellent consumer satisfaction ratings.
- Proven to save on water consumption.
- Full Reg 4 / WRAS / Kiwa Approval.



kiwa
approved
product



UK WATER SUPPLY
REGULATIONS

kiwa
approved
material



UK WATER SUPPLY
REGULATIONS



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'Property level' flow management solutions:



Ease of installation

Between meter and manifold.
Invisible to consumer.
Ideal on a new service, meter exchange, etc.

Optional Flow rates

Factory set at 10, 12 or 14 l/m
Constant flow rate irrespective of network pressure.

Prevents over delivery of water

Min Standard 9 l/m
Network pressures could allow > 40+ l/m
With protection against backflow.

Cost effective

Simple installation.
Access to property not required.
Save water, save money

NRv² LoFlo®

W: www.groundbreaker.co.uk



NRv² LoFlo

• Proven Success:

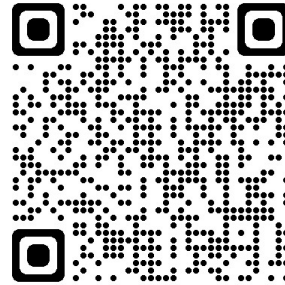
- Used by several water companies with 1,000's of installations.
- Savings of up to 30 litres per property per day (> 15 l/pp/day)
- Energy savings could be £100+ per year per property (source BBC)
- At just £20.00 per unit, cash back in just a couple of months.



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- For more information:
- Please visit our web site
- www.groundbreaker.co.uk
- Or
- Follow the QR Code
- Or call 01379 741993



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Thank you to all our presenters today!

The aim of today's session was to provide some inspiration on how to create a water efficient future. The organisations involved in this session are a selection of possible options, and we encourage you to explore to find the right solution for your situation.

Southern Water do not endorse any of the parties involved in today's session.

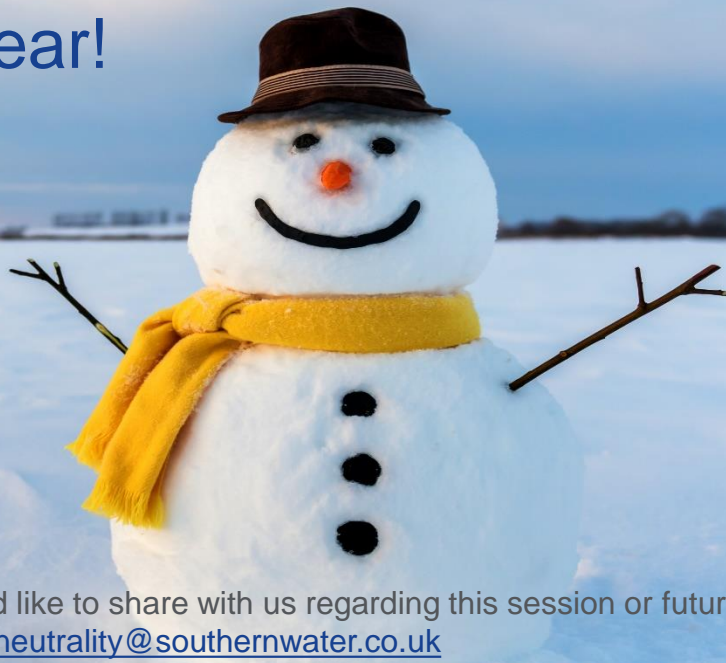


Can you help us?

- **Calling all Developers** – please could you assist us by completing a short water efficiency survey? Your feedback is extremely important to us, and it will allow us to review and improve our service to you.
- The link will be circulated in the follow up document alongside a supporting document
- <https://www.surveymonkey.co.uk/r/SWWaterEff>



Thank you!
Wishing you all a Merry Christmas & a Happy New
Year!



If you have any feedback or recommendations you would like to share with us regarding this session or future events, please contact us @ waterneutrality@southernwater.co.uk

**The webinar will be uploaded to our website shortly: [Water Neutrality \(southernwater.co.uk\)](http://Water Neutrality (southernwater.co.uk))