

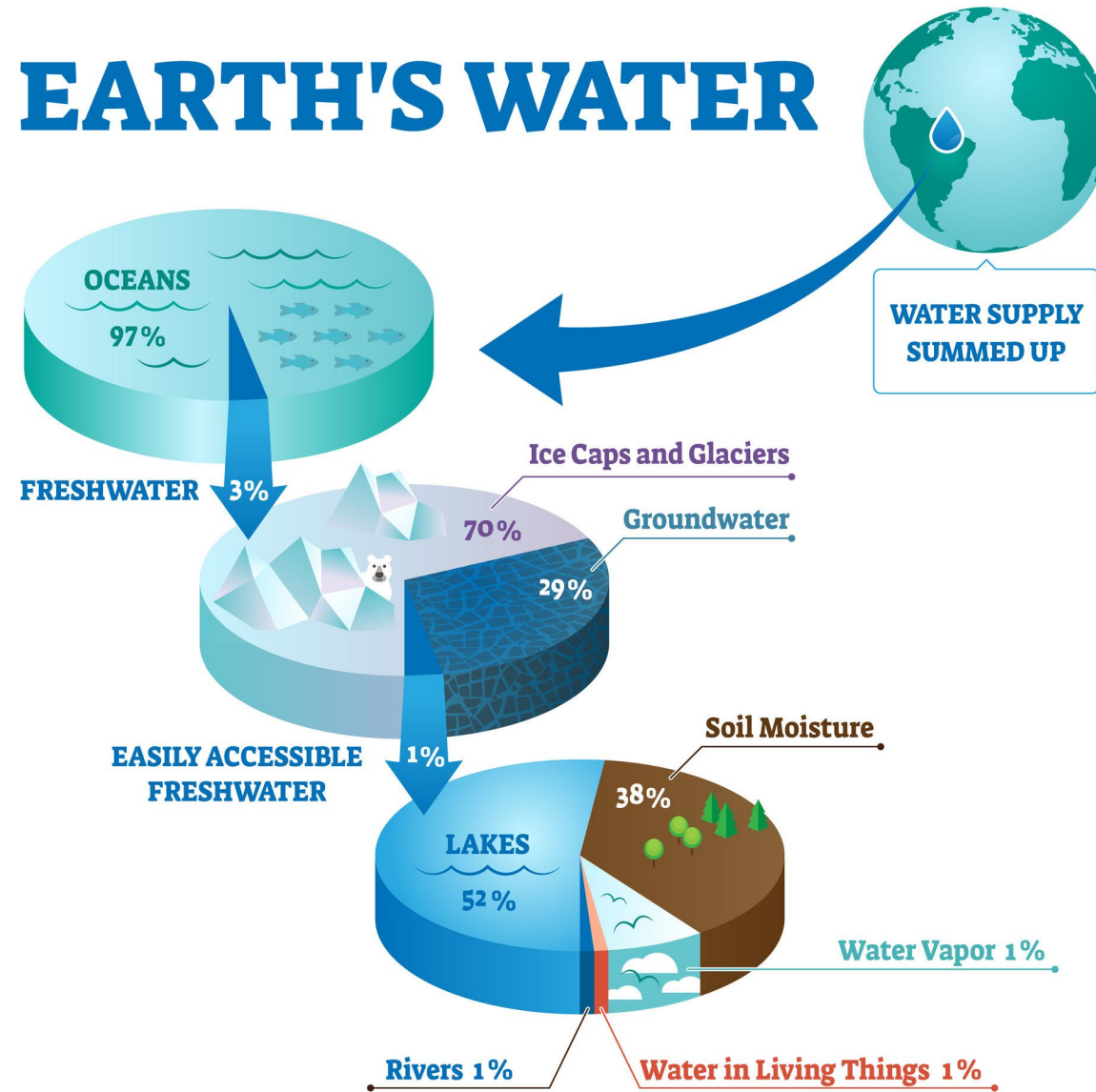
earthwatch
EUROPE



Sewage Summit Finding Solutions



EARTH'S WATER



australianenvironmentaleducation.com.au

Solution Focus

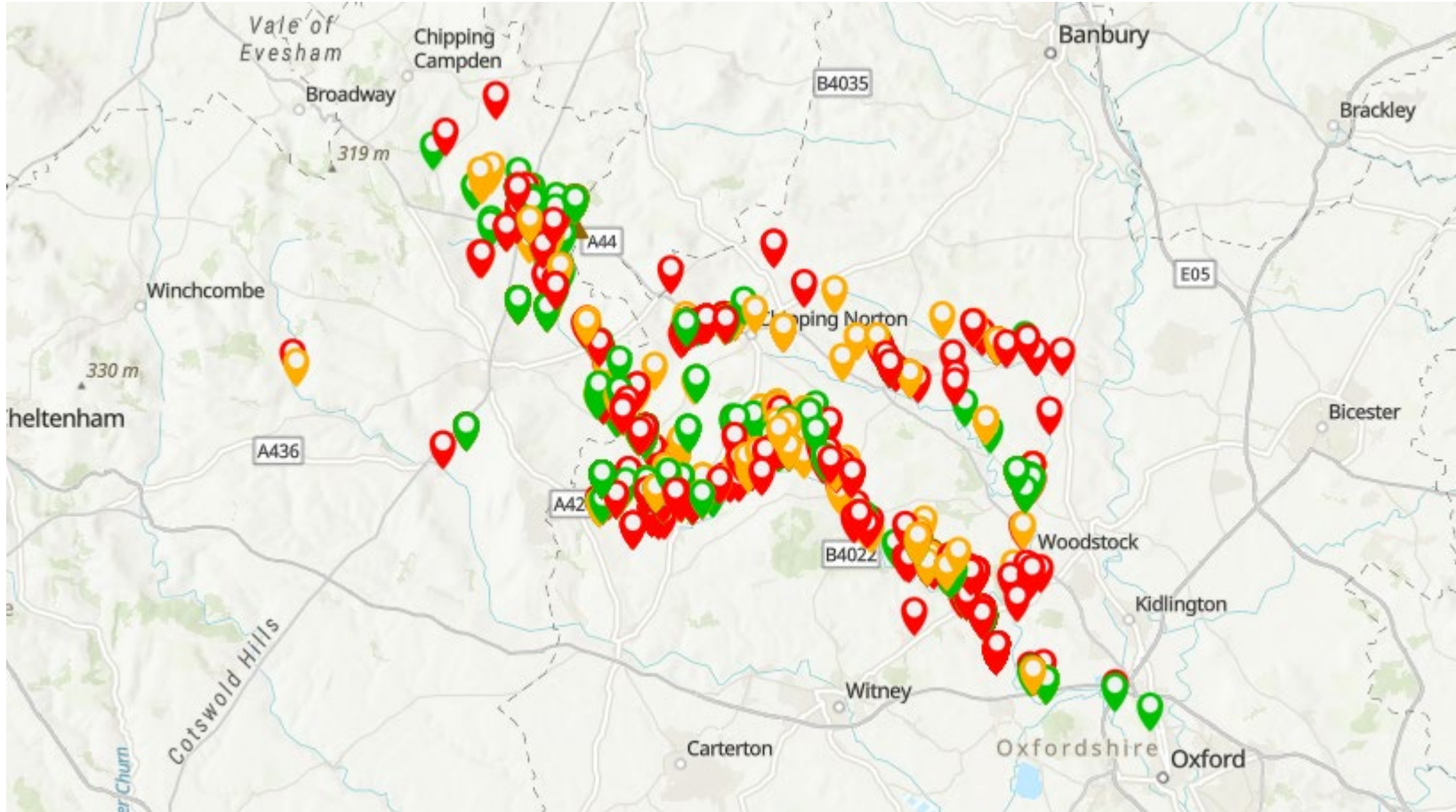
Part of finding solutions is admitting there is a problem, defining that problem and targeting a solution.

Cotswold National Landscape

Every year 38 million tourists visit the Cotswolds to witness its beauty.

But this National Landscape is being destroyed through neglect.

Citizen Science Data



Green = Good

Amber =
Moderate

Red = Bad

The Problem

Surrounded by rolling hills mainly used for agriculture.

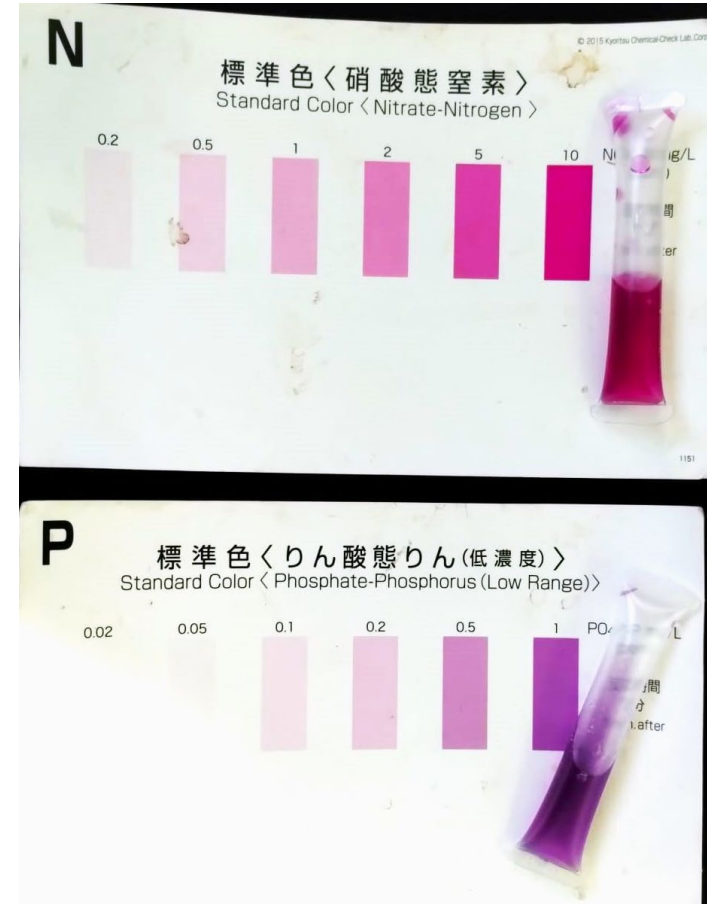
The main issues facing the source of the River Evenlode is actually sewage.

Problem - Regulations & Permits

Data has shown that **treated effluent** is a significant contributor to the poor water quality designation.

The sewage works permit does not include a limit for **phosphate**.

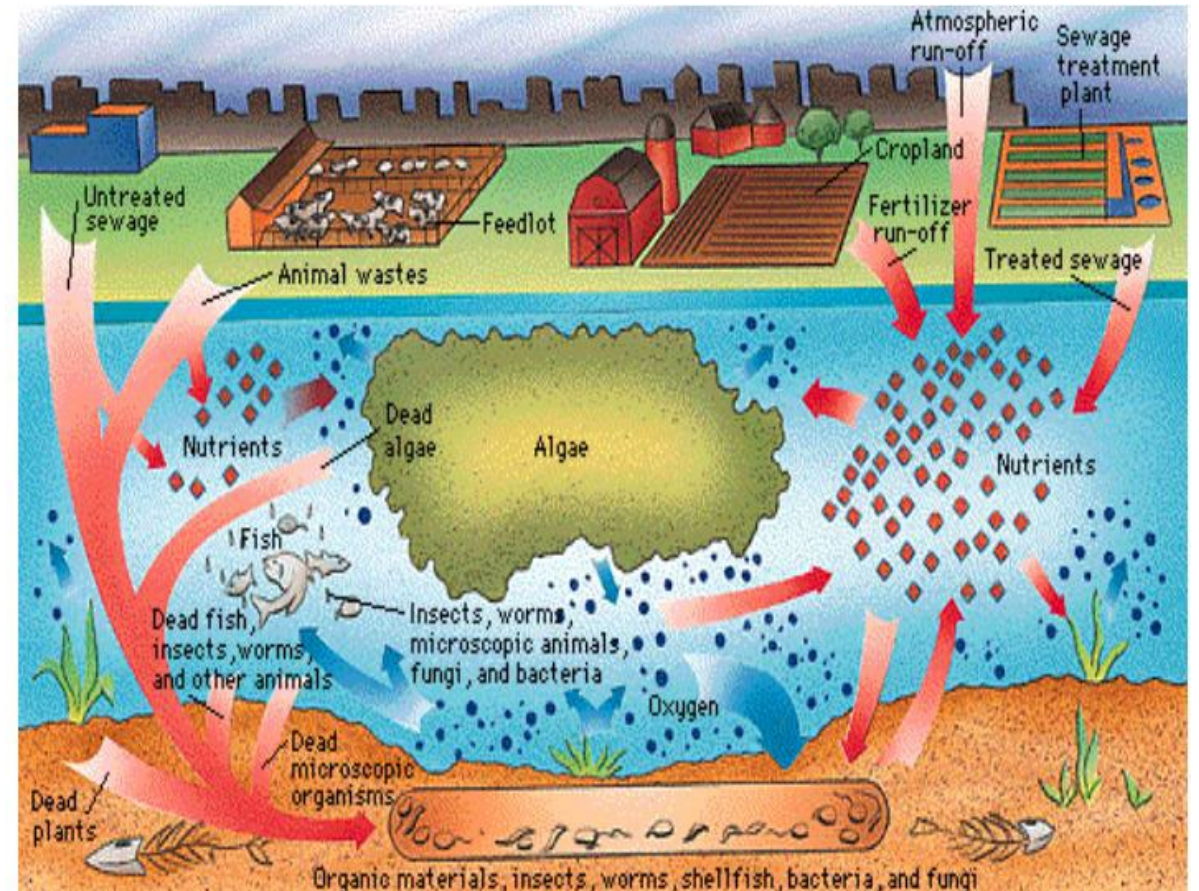
The concentration of phosphate being poured into the river is too high for our small, shallow, slow-flowing river. This is legal because permits are lax and regulations are weak.



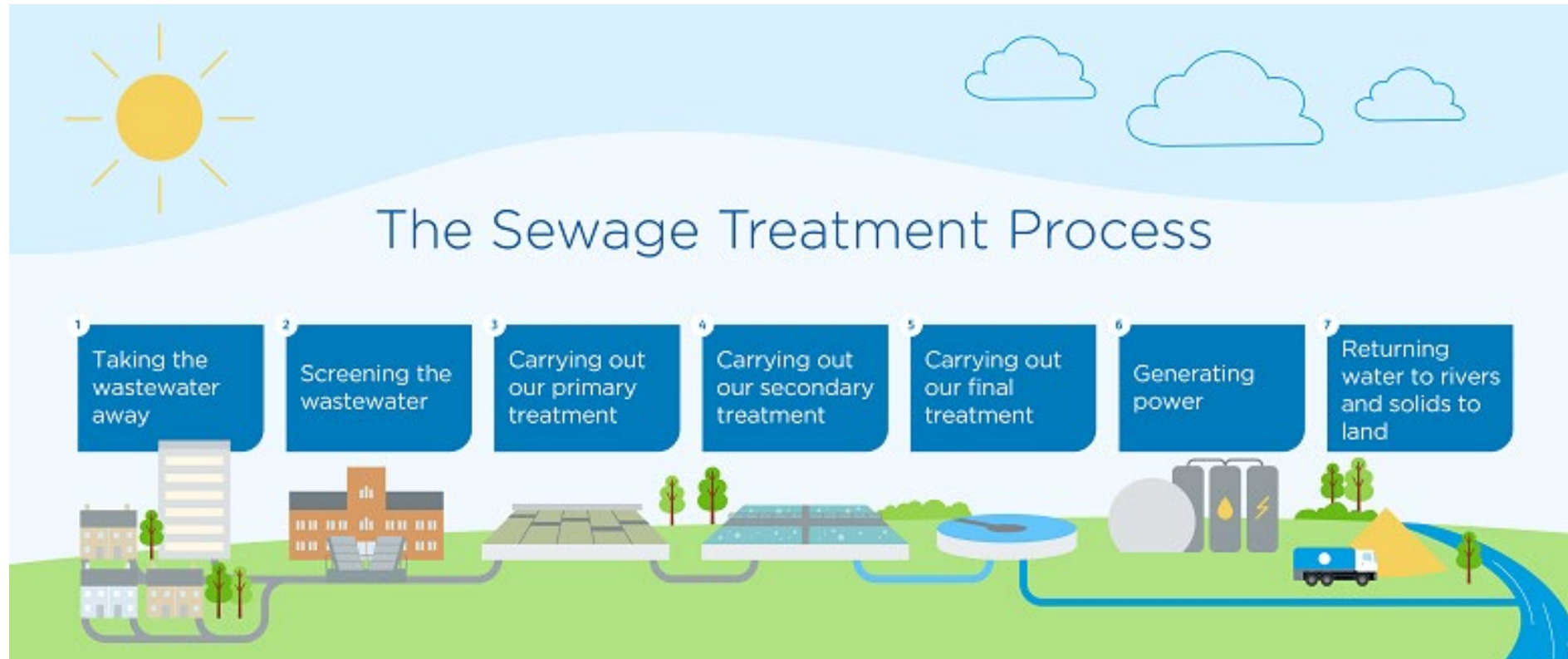
Problem - Phosphate

Phosphate is one of the main cause of eutrophication in our rivers.

The number of additional houses proposed in Moreton in Marsh is significant and likely to overwhelm the capacity of the sewer system which will further degrade river quality.



Problem - Current Treatment Process



Remove the big bits (6mm) - Aerate – Settle - Release

30th July 2018

Pre-planning enquiry: Capacity concerns

Dear [REDACTED]

Thank you for providing information on your pre planning application for the Land at Dunstall Farm FOSSEWAY AVENUE Moreton in Marsh GL56 0EA, for 250 new dwellings.

We've assessed your proposals and concluded from our initial review that our supply network will have enough capacity to supply the first 50 of the proposed 250 properties, but unfortunately we're unable to meet the needs of your full development at this time.

In order to ensure we make the appropriate upgrades – or 'off-site reinforcement' – to serve the remainder of your development, we'll need to carry out modelling work and, if required, design a solution and build the necessary improvements. This work is done at our cost.

How long could modelling and reinforcement take?

Typical timescales for a development of your size are:

Modelling: 6 months

Design: 6 months

Construction: 6 months

Total: 18 months

If the time you're likely to take from planning and construction through to first occupancy is longer than this, we'll be able to carry out the necessary upgrades in time for your development. If it's shorter, please contact me on the number below to discuss the timing of our activities.



Problem – Development Increase

Since July 2018 **134 houses,**
plus 1 care home for 60 occupants
have been built or are near completion.

This equates to an increase of around
325 extra bums on loos
(if we estimate 2 occupants per house)

Problem – At Capacity

In **2018** Thames Water provided the EU Water Treatment Directive with a population equivalent (PE) of **5502**.

In **2020** Thames Water provided OFWAT with a PE of **5708**.

Thames Waters **current** PE for Moreton is **6346**.

This is an increase in PE of **844**.

**There have been no upgrades to the sewage treatment infrastructure since 2018.
Thames Water itself has demonstrated that it is already operating outside its capacity.**

Old news is bad news

Has anything changed?

Restoring our Rivers

According to the Restoring our Rivers Working Group report July 2022:

*Due to the level of housing being built across the country in recent years, many of the new developments were being linked into **existing, leaking, and ill-maintained sewage systems which were not adequate to begin with, let alone after adding 1000s of new houses onto them.***

*The Group noted that whilst they have no legal powers to recommend or request action [from water companies], **they had influence locally and that was what they hoped to use during this piece of work.***

The Restoring our Rivers Working Group comprised GCC members

Problem - Building Regulations

“Despite separate sewer systems, property developers still have the right to connect surface water drainage pipes to the combined sewerage network.

This passes the cost and problem further down the network, resulting in increases in overflow operation where overflows exist or a flooding risk where they don’t.

Sewerage legislation requires an urgent rethink to resolve many of the issues sewer overflows are causing.”

Wessex Water

Solutions

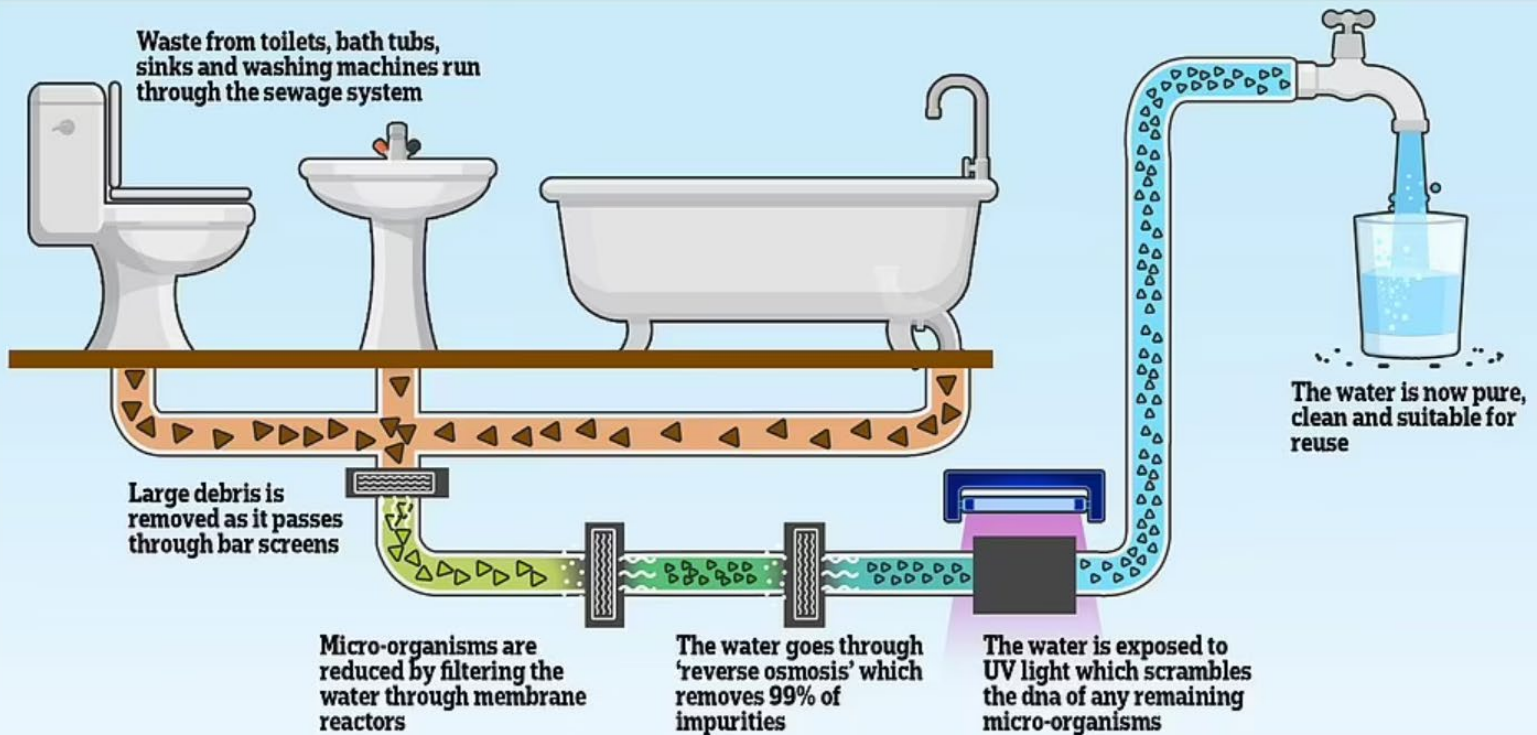
Denmark has recently spent **£29 million** on installing a new treatment works with the capacity for 100,000 people.

Cirencester has just spent **£22 million** upgrading

But the final treated effluent

“won’t be safe enough for humans or animals to swim in” (EA)

HOW THE 'TOILET TO TAP' SYSTEM WILL WORK



“Water companies are considering 'toilet-to-tap' systems to turn sewage into drinking-water to avert shortages over next 20 years... as firms face fury over dumping of human waste in seas and beauty spots around Britain”

By [ELEANOR DYE FOR MAILONLINE](#) X

PUBLISHED: 10:47, 28 August 2022 | UPDATED: 23:40, 28 August 2022

Action Needed to Restore our Rivers

Investment for further monitoring of river water quality is required to better understand the impacts of all this pollution and hopefully allow us to protect the environment for the future.

The Evenlode Catchment Partnership (ECP) has announced it will terminate relations with Thames Water, citing disappointment in the company's 2025-29 business plan.

Action Needed to Restore our Rivers

Environment Agency

- Permits need to be updated.
- Permits need to include limits for phosphate.
- Regulations need to be tightened.

Action Needed to Restore our Rivers

Water Companies - Start pulling your weight!!

- Upgrade to improve the quality of final effluent to reduce the environmental impact.
- The sewage needs further treatment to reduce the Phosphate load in the discharge.
- **This needs doing urgently**
- The sewers in need improving to prevent the spillage of untreated sewage.

Action Needed to Restore our Rivers

Local Authorities

- Make sure that there is the capacity for development before allocating land.
- Stop developments from happening at pre-planning stage, unless future-proofed sewage infrastructure exist.
- Use your leverage to hold water companies to account.
- **Start protecting Cotswold National Landscape, you are the guardian.**

Water companies are not doing it

Regulators are not doing it

Communities cannot do it on their own

GCC and CDC need to step up and manage this situation