

finding out about
water



Did you know that **80%**
of your body is made of water?
It lubricates muscles and joints
and keeps your kidneys working
properly. In fact, we should
all drink 8 glasses a day to
keep our bodies hydrated and
skin healthy.

That's how important water is.



where does your clean water come from?

Water doesn't fall from the sky pure enough to drink. As it falls, it picks up dust and pollution, then more dirt, pesticides, fertilisers and so on after it hits the ground. So, you really wouldn't want to drink that rainwater. Our job at Severn Trent is to make sure that when it gets to the tap, your water is clean and safe – because caring for your health and well-being is why we exist.

First, we collect the water either from reservoirs, underground sources or rivers. Then we pipe it to one of our treatment works, where it's extensively treated to remove the impurities. It's a very complicated process, as you can imagine and it needs a lot of skill. But, by the time our water reaches you – through part of our 42,980 kilometres of mains pipes – you can be sure it's more than pure enough to drink.

Don't just take our word for it though, we have to meet world leading standards set by an independent watchdog – the Drinking Water Inspectorate, (DWI). Recent tests show that our drinking water is amongst the best in the UK, which in turn equates to the best in the world.

But once you've used the water, we also have to take it away again...





where

does waste water go?

...what goes around comes around, so, once you've finished with the water you use, it goes straight into the sewers. In the Severn Trent region, that means a network of 53,325 kilometres of pipes – some big enough to fit a double decker bus inside.

The sewage that flows through the system is a mixture of waste from houses and factories, chemicals, debris and rainwater – everything from the output of your toilet, washing machine and dishwasher to the storm water we get when there's a real downpour.

All of this has to be treated at our sewage treatment works - we've over 1,000 of them, to remove all the harmful elements before that water can be safely returned to rivers and streams, where the water cycle starts all over again.

If you'd like to know more about how we look after drinking water and waste water, we have more detailed leaflets in this series (see inside back cover), or you can visit our website at www.stwater.co.uk.

the water cycle

The diagram on the right shows where water comes from and where it goes – a continuous water cycle.



Droplets form together to make clouds



The clouds cool, which causes precipitation and water falls back to earth



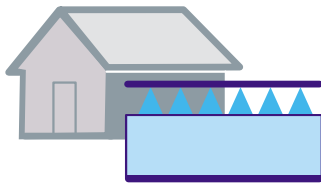
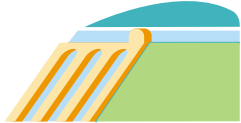
Rivers flow back to the sea. The sun's heat causes evaporation



Cleaned water, **effluent**, flows safely back to rivers



This water forms streams and **rivers**, and can be collected and stored in **reservoirs**. The water that soaks into the ground forms **aquifers** which are pumped out using boreholes



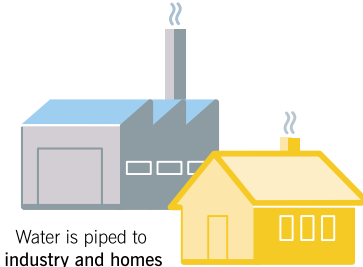
Dirty waste water is cleaned at **sewage treatment works**



Water from rivers, reservoirs and aquifers is cleaned at **water treatment works**



Sewage treatment by-product **sludge** is sometimes incinerated, but is mostly recycled for agriculture



Water is piped to **industry and homes**

join us to

learn more...

come and see

Whether it's school groups, families or individuals, you're welcome to **Come and See** what we do. To book an organised visit, simply call the relevant number.

For **Cropston Visitor Centre**, Leicestershire, or **Campion Hills Water Treatment Works**, Leamington, ring **01332 683425**.

For **Minworth Sewage Treatment Works** near Birmingham, **Trimpley Water Treatment Works** near Bewdley, **Hayden Sewage Treatment Works** near Cheltenham or **Mythe Water Treatment Works** in Tewkesbury, ring **0121 722 4339**.

We also attend many organised events across the region as part of our **Go and Tell** programme, so look out for us.

education centres

Some of our sites are also fully equipped with dedicated classrooms for school visits, where a day's programme can be tailored to the needs of each class or age group. These free days are run by qualified teachers, and are fully linked to the National Curriculum.

To book a visit, choose from the following:

Barston Sewage Treatment Works, near Solihull – **01675 443079**.

Carsington Water, near Ashbourne – **01629 540696**.

Cropston Water Treatment Works, Leicestershire – **0116 235 2014**.

Hayden Sewage Treatment Works, near Cheltenham – **01242 680164**.

Stoke Bardolph Sewage Treatment Works, Nottingham – **0115 961 6504**.







...or join us

for fun!



We've created lots of leisure opportunities – mostly free – for anyone to come and share, at many of our reservoirs and visitor sites. Here's a brief guide to the top 5 attractions. For complete details, phone the site directly or visit the Out and About section on our website – www.stwater.co.uk.

Carsington Water – near Ashbourne. Our flagship site, with the award-winning Go with the Flow interactive display at the visitor centre, as well as shops, café and restaurant, barbecue facilities, water sports, cycle hire, walks, fishing and adventure playground, wildlife centre, bird hides and low water gardens. Visitor centre: **01629 540696**.

Tittesworth – north of Stoke-on-Trent on the edge of the Peak District National Park. This site also has an interactive display with teaching materials. Enjoy the trout fishing, sensory garden, gift shop, restaurant, barbecue facilities and children's play area too. Visitor centre: **01538 300400**.

Upper Derwent Valley – an area of wild and outstanding beauty in the High Peak, where you can enjoy walks, cycling, riding, birdwatching, sub aqua and trout fishing. Visitor centre: **01433 650953**.

Lake Vyrnwy – wildlife haven in the mid-Wales mountains with walks, sculpture trails, cycling, birdwatching, canoeing, sailing, fly fishing and a virtual 3D tour of the lake. Visitor centre: **01691 870278**.

Foremark and Staunton Harold – south of Derby, with exhibitions and 3D models, large adventure playground, picnic areas, well-marked walks (including a path to nearby Calke Abbey), sailing and trout fishing. Visitor centre: **01332 865081**.

We also run a programme of events across our sites throughout the year. For a copy of our **Free Events Guide** ring **0121 722 4000**.



play safe with water

Water's not just for drinking and washing – it can be brilliant fun as well. But only when you go to a proper swimming pool or the seaside, supervised by lifeguards or with adults in charge.

Rivers, streams, canals, ponds and reservoirs might look safe – and very inviting especially when the weather's really hot. But you never know what's under the surface. There can be strong currents to defeat even the best swimmers, reeds to get tangled in, sharp objects, even animals that live there.

Even in high summer, the water can be so cold that shock sets in – and this is how many people drown each year. And in the winter, frozen lakes often look strong enough to walk or skate on, but you can bet that the ice is too thin to take your weight – and rescue could be a long way away.

Water and sewage treatment works can be dangerous places too.

If you'd like a proper look round, see the previous pages for details of our **Come and See** supervised visits.

To play safe, the important thing to remember is always to treat water with respect – and if in doubt stay well away.





Key

- Come and See Centre
- Visitor Centre
- Education Centre
- Major City/Town
- Severn Trent Area Border
- Motorway
- Main A Road

saving water

in the home...

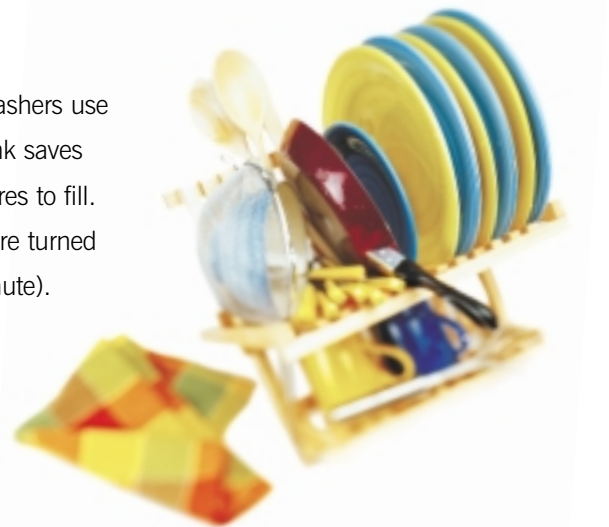
On average, each person in the Severn Trent region uses an incredible 139 litres of water each and every day – just at home. 41 litres a day are used simply for cooking, washing and drinking. It's a precious resource, and we're doing our best to conserve supplies. As a result of our Water Efficiency Strategy and through the continued efforts of our customers, demand for our water is down to a 6 year low. Here's a few tips on saving water in your own home:

in the bathroom

Take a shower which uses 30 litres of water on average, rather than a full bath which uses 110 litres. Although beware – power showers at between 15 and 60 litres a minute, can often use a lot more water than baths. Don't wash or clean your teeth under running water, put the plug in and fill a glass for rinsing. Instead of running the tap to get cold drinking water, fill a jug or bottle and put it in the fridge to chill.

in the kitchen

Washing machines use 120 litres on average per cycle and dishwashers use 40 litres, so try to use them only with a full load. A bowl in the sink saves water for washing up or preparing vegetables – this will take 10 litres to fill. Dripping taps waste a surprising amount of water so ensure taps are turned off tightly (a running tap uses approximately 9 litres of water a minute). Pipe insulation needs to be checked before winter to prevent frost damage and overflows also need checking regularly.





...and in the garden

You just wouldn't believe how much precious tap water gets lavished on gardens. In just one hour, a hosepipe or sprinkler uses 1,000 litres, which is as much as the average household uses in two whole days!

In comparison, a watering can takes only 10 litres on average to fill. With plants, water round the roots, not on the leaves – and water in the evening, when water won't evaporate so fast. Use mulching to conserve moisture, keep weeds down, and choose plants that need less water. You could even collect rainwater in a water butt, or use the dirty dishwasher after washing up (it even helps kill off the greenfly).

And a tip from the experts, we water lawns far too much – they always seem to recover from even the driest summers. And when you're washing the car, use a bucket and sponge or watering can to rinse off the foam. Better still, use a car wash, they usually recycle water.

Above all, just use your common sense about saving water outside, as well as inside – and if you have a water meter, you'll be saving money too!

If you would like more detailed information about water conservation, contact us to request a copy of our **Guide to saving water**.

There are 3 other booklets available in the **Severn Trent Water Facts Series**:



finding out about us
an introduction to
Severn Trent Water



**taking care of your
drinking water**
the water treatment process



**taking care of your
waste water**
the sewage treatment process

To obtain further copies,
please call 0121 722 4000.

Severn Trent Water

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Your water. *Safe in our hands.*